

Product Catalog



Infinova®
The Integrator's Manufacturer

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Megapixel & IP Product Family

V6202-T00 & V6202-T02 Series

HD 1MP and 2MP Low Light IP Camera

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- **1/3" progressive scan CMOS sensor**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Supports WDR function**
- **Onvif Profile S**
- **Sensitivity: 0.01 lux**
- **High-resolution image signal output: 1920×1080@30fps or 1280×720@30fps**
- **Small bandwidth occupancy and high image quality**
- **Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG**
- **Smooth dynamic video replay**
- **Supports anti-reflection function**
- **Bi-directional audio, G.711**
- **Supports storage with SD card**
- **Up to four definable motion detection areas**
- **Up to four definable privacy mask areas**
- **Supports active video tampering**
- **Local Recording**
- **2 alarm inputs, 1 relay output**
- **Supports multiple ways to handle alarms, such as email sending, FTP upload and relay output**
- **Supports simultaneous multi-user access and parameter configuration via Web Server**
- **Compatible with Infinova's V2216, and other digital video surveillance software**
- **Provides standard SDK, easily incorporated with other video surveillance software**
- **Supports public access**
- **With analog video debugging interface**

V6202-T00&V6202-T02 series HD 1MP and 2MP low light IP camera adopts 1/3" progressive scan CMOS sensor. H.264 High profile/M-JPEG video compression format allows image output resolution up to 1920×1080@30fps or 1280×720@30fps.

The camera supports three simultaneous video streams, bi-directional audio and G.711 audio compression. Functioned with ICR day/night switch, motion detection, privacy mask, alarm input/output and local recording, V6202-T00&V6202-T02 series is bound to enhance security and convenience for your CCTV surveillance system.

V6202-T00&V6202-T02 series is widely used in public security, subways, governments, schools, airports, factories, hotels, museums, city streets and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	72.4dB
Lens Mount	C/CS
Auto Iris	DC drive
Day/Night Functionality	ICR
Sensitivity	V6202-T00: Color mode: 0.03 lux @ F1.2 (30IRE, AGC ON); B/W mode: 0.008 lux @ F1.2 (30IRE, AGC ON) V6202-T02: 0.05 lux @ F1.2 (30IRE, AGC ON); B/W mode: 0.01 lux @ F1.2 (30IRE, AGC ON)
Exposure	Scene mode, Manual mode, Shutter priority mode
Shutter	Auto/Manual (1/25s~1/8000s)
White Balance	Auto/Manual/Incandescent light/Cool white fluorescent light/Sun light/Cloudy/Natrium light
Gain Control	Auto/Manual
Noise Reduction	3D
Video Compression	H.264 High profile/M-JPEG
Maximum Resolution	V6202-T02: 1920×1080@H.264/M-JPEG; V6202-T00: 1280×720@H.264/M-JPEG
Optional Resolution	V6202-T02: Major stream: 1920×1080, 1280×1024, 1280×960, 1280×720, 1024×768, 800×600, Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240; V6202-T00: Major stream: 1280×720, 1024×768, 800×600, Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240
Maximum Frame Rate	V6202-T02: 30fps@1920×1080; V6202-T00: 30fps@1280×720
Data Rate	Variable bit rate; Constant bit rate: 256Kbps~10000Kbps
Audio	Audio Compression: G.711-u; 1 input (Linear level, Resistance: 1000 Ohm), 1 output (Linear level, Resistance: 600 Ohm)

Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
Network Delay	≤250ms
Local Recording	Available
SD Card Storage	Available, up to 32G
Upgrade Online	Available
Password Protection	Available
Alarm	2 alarm inputs, 1 relay output
Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Applicable Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP, UPNP, DDNS, Profile S
Power Supply	PoE IEEE 802.3af Class 2/12VDC/24VAC
Power Consumption	PoE or 24VAC: <4W; 12VDC: <4.5W
Operating Temperature	14°F~122°F (-10°C~50°C)
Storage Temperature	-4°F~140°F (-20°C~60°C)
Operating Humidity	0%~90% RH (non-condensing)
Dimensions (HxWxL)	2.52"x2.88"x5.66" (64mm×73.2mm×143.8mm)
Box Dimensions (LxWxH)	8.07"x4.92"x3.94" (205mm×125mm×100mm)
Unit Weight	0.88lbs. (0.40kg)
Shipping Weight	1.32lbs. (0.60kg)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 50130-4-2011 ¹ , FCC: Part 15 Subpart A ² , UL 60950-1 ³ , ISO 9001:2008

Certificate No.: ¹ SET2013-00353; ² SET2013-00371; ³ E232008-A28-UL.

Ordering information

V6202-T0220	HD Megapixel IP fixed camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, PoE/12VDC/24VAC
V6202-T0020	HD Megapixel IP fixed camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, PoE/12VDC/24VAC

ACCESSORIES

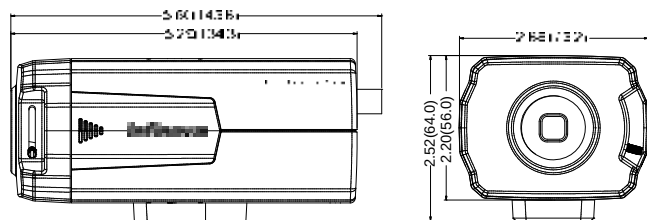
Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC

Recommended Mounts

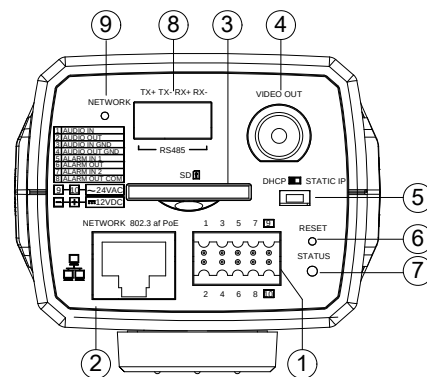
V1551-7	Fixed camera direct mount; 7 inch
V1551-10	Fixed camera direct mount; 10 inch

Dimensions



(Unit: inch, in the parentheses is mm)

Back panel



- (1) Input/Output Port
- (2) Network Port (used for PoE power supply)
- (3) SD Card Slot
- (4) Analog Video Output
- (5) IP Address Assignment Selection
- (6) Reset
- (7) Power LED Indicator
- (8) RS485 Port
- (9) Network Indicator

Pin Assignment of (1) Input/Output Port

1	Audio In	2	Audio Out
3	Audio/Alarm GND	4	Audio/Alarm GND
5	Alarm In 1	6	Alarm Out
7	Alarm In 2	8	Alarm Out COM
9	Power Input (12VDC-/24VAC)	10	Power Input (12VDC+/24VAC)

V6202-T03 Series

HD 3MP Low Light IP Camera

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The Integrator's Manufacturer



- **1/3" progressive scan CMOS sensor**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Supports Digital WDR function**
- **Onvif Profile S**
- **Sensitivity: 0.01 lux**
- **High-resolution image signal output: 2048×1536@20fps or 1920×1080@30fps**
- **Small bandwidth occupancy and high image quality**
- **Maximum frame rate: 30fps@1920×1080**
- **Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG**
- **Smooth dynamic video replay**
- **Supports anti-reflection function**
- **Bi-directional audio, G.711**
- **Supports storage with SD card**
- **Up to four definable motion detection areas**
- **Up to four definable privacy mask areas**
- **Supports active video tampering**
- **Local Recording**
- **2 alarm inputs, 1 relay output**
- **Supports multiple ways to handle alarms, such as email sending, FTP upload and relay output**
- **Support simultaneous access and parameter setting via Web Server from multiple clients**
- **Compatible with Infinova's V2216 and other digital video management software**
- **Provides standard SDK, easily incorporated with digital surveillance systems from a different supplier**
- **Supports public access**
- **With analog video debugging interface**

V6202-T03 series HD 3MP IP camera uses 1/3" progressive scan CMOS sensor. H.264 High profile/M-JPEG video compression format allows image output resolution up to 2048×1536@20fps or 1920×1080@30fps.

The camera supports three simultaneous video streams, bi-directional audio and G.711 audio compression. Functioned with ICR day/night switch, motion detection, privacy mask, alarm input/output and local recording, V6202-T03 series is bound to enhance security and convenience for your CCTV surveillance system.

V6202-T03 series is widely used in financial institutions, telecommunications, governments, schools, airports, factories, hotels, museums, city streets and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	72.4dB
Lens Mount	C/CS
Auto Iris	DC drive
Day/Night Functionality	ICR
Sensitivity	Color mode: 0.07 lux @ F1.2 (30IRE, AGC ON); B/W mode: 0.01 lux @ F1.2 (30IRE, AGC ON)
Exposure	Scene mode, Manual mode, Shutter priority mode
Shutter	Auto/Manual (1/25s~1/8000s)
White Balance	Auto/Manual/Incandescent light/Cool white fluorescent light/Sun light/Cloudy/Natrium light
Gain Control	Auto/Manual
Noise Reduction	3D
Video Compression	H.264 High profile/M-JPEG
Maximum Resolution	2048×1536@ H.264/M-JPEG
Optional Resolution	H.264 Major stream: 2048×1536, 1920×1080, 1280×1024, 1280×960, 1280×720, 1024×768, 800×600; H.264 Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240
Maximum Frame Rate	20fps@2048×1536; 30fps@1920×1080
Data Rate	Variable bit rate; Constant bit rate: 256Kbps~10000Kbps
Network Delay	≤250ms
Audio	Audio Compression: G.711-u; 1 input (Linear level, Resistance: 1000 Ohm), 1 output (Linear level, Resistance: 600 Ohm)
Motion Detection	Up to 4 areas

Privacy Mask	Up to 4 masks
Local Recording	Available
SD Card Storage	Available, up to 32G
Upgrade Online	Available
Password Protection	Available
Alarm	2 alarm inputs, 1 relay output
Network Port	One RJ45 10/100M self-adaptive Ethernet port
Applicable Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP, UPNP, DDNS, Profile S
Power Supply	PoE IEEE 802.3af Class 2/12VDC/24VAC
Power Consumption	< 4.5W
Operating Temperature	14°F~122°F (-10°C~+50°C)
Storage Temperature	-4°F~140°F (-20°C~+60°C)
Operating Humidity	0%~90% RH (non-condensing)
Dimensions (HxWxL)	2.52"x2.88"x5.66" (64mm×73.2mm×143.8mm)
Box Dimensions (LxWxH)	8.07"x4.92"x3.94" (205mm×125mm×100mm)
Unit Weight	0.88lbs. (0.40kg)
Shipping Weight	1.32lbs. (0.60kg)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , UL 60950-1 ³ , ISO 9001:2008

Certificate No.: ¹CTL1402140178-EC; ²CTL1402140178-FC; ³E232008-A32-UL

Ordering information

V6202-T0320 HD Megapixel low-light IP camera, Day/night,
1/3 inch CMOS sensor, H.264/M-JPEG, 3.0Mpx,
PoE/12VDC/24VAC

ACCESSORIES

Power Supplies

N3921-24A-1 Power Supply, 24VAC, 20VA, Plug-In, 120VAC

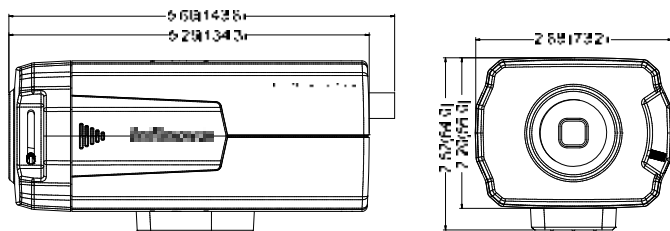
N3921-24A-2 Power Supply, 24VAC, 20VA, Plug-In, 230VAC

Recommended Mounts

V1551-7 Fixed camera direct mount; 7 inch

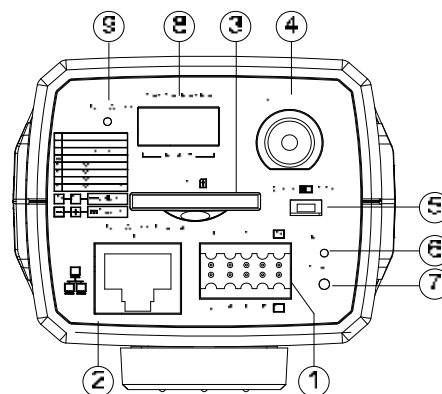
V1551-10 Fixed camera direct mount; 10 inch

Dimensions



(Unit: inch, in the parentheses is mm)

Back panel



- (1) Input/Output Port
- (2) Network Port (used for PoE power supply)
- (3) SD Card Slot
- (4) Analog Video Output
- (5) IP Address Assignment Selection
- (6) Reset
- (7) Power LED Indicator
- (8) RS485 Port
- (9) Network Indicator

Pin Assignment of (1) Input/Output Port

1	Audio In	2	Audio Out
3	Audio/Alarm GND	4	Audio/Alarm GND
5	Alarm In 1	6	Alarm Out
7	Alarm In 2	8	Alarm Out COM
9	Power In (12VDC-/24VAC)	10	Power In (12VDC+/24VAC)

V6202IR-TA/TX Series

HD 2MP IR IP Camera with Auto Focus

Infinova[®]
The Integrator's Manufacturer



- 1/3" progressive scan CMOS sensor
- IR-Cut Removable (ICR) Filter for Day/Night switching
- Motorized zoom lens for Auto Focus
- High-performance IR illuminators, 30m or 50m illumination distance
- Smart-IR technology, no image overexposure or underexposure
- Long service life and easy replacement for the illuminators
- Supports WDR function
- Onvif Profile S
- High-resolution image signal output: up to 1920×1080@30fps
- Small bandwidth occupancy and high image quality
- Maximum frame rate: 30fps@1920×1080
- Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG
- Smooth dynamic video replay
- Supports anti-reflection function
- Bi-directional audio, G.711
- Supports storage with TF card
- Supports active video tampering
- Motion detection, privacy mask and Local Recording
- 2 alarm inputs, 1 relay output
- Supports multiple ways to handle alarms, such as email sending, FTP upload and relay output
- Support simultaneous access and parameter setting via Web Server from multiple clients
- Compatible or able to integrate with Infinova V2216 and other digital video surveillance software
- Standard SDK is provided for easy integration with other video surveillance software
- Supports public access
- With analog video debugging interface
- IP66 environmental rating
- IK10 for all metal enclosure

V6202IR-TA/TX series HD 2MP IR IP camera uses 1/3" progressive scan CMOS sensor. H.264 High profile/M-JPEG video compression format allows image output resolution up to 1920×1080@30fps.

The camera supports three simultaneous video streams, bi-directional audio and G.711 audio compression. Functioned with ICR day/night switch, motion detection, privacy mask, alarm input/ output and local recording, V6202IR-TA/TX series is bound to enhance security and convenience for your CCTV surveillance system.

Boasting of built-in motorized zoom lens with the focal length 2.8-12mm, 4-9mm, and 9-22mm optional, V6202IR-TA/TX series can achieve long-distance auto focus.

With Smart-IR technology, the camera effectively avoids the image overexposed and underexposed, with the illumination distance up to 30m or 50m.

V6202IR-TA/TX series is widely used in public security, subways, governments, schools, airports, factories, hotels, museums, city streets and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	72.4dB
Lens	V6202IR-TA220F, V6202IR-TX224F: F1.2, f=4-9mm; horizontal angle: 62.8° (wide)~35.2° (tele); V6202IR-TA220H, V6202IR-TX224H: F1.5, f=9-22mm; horizontal angle: 31.6° (wide)~14.5° (tele) V6202IR-TA220P, V6202IR-TX224P: F1.4, f=2.8-12mm; horizontal angle: 80° (wide)~30° (tele);
IR Wavelength	850nm
IR Illumination Distance	V6202IR-TA220F, V6202IR-TX224F: 30m V6202IR-TA220H, V6202IR-TX224H: 30m V6202IR-TA220P, V6202IR-TX224P: 50m
Day/Night Functionality	ICR
Sensitivity	0 lux (IR on)
Exposure	Scene mode, Manual mode, Shutter priority mode
Shutter	Auto/Manual (1/25s~1/8000s)
White Balance	Auto/Manual/Incandescent light/Cool white fluorescent light/Sun light/Cloudy/Natrium light
Gain Control	Auto/Manual
Noise Reduction	3D
Video Compression	H.264 High profile/M-JPEG
Maximum Resolution	1920×1080@H.264/M-JPEG
Optional Resolution	Major stream: 1920×1080, 1280×1024, 1280×960, 1280×720, 1024×768, 800×600; Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240
Maximum Frame Rate	30fps@1920×1080
Data Rate	Variable bit rate; Constant bit rate: 256Kbps~10000Kbps
Network Delay	≤250ms

Audio	Audio Compression: G.711-u; 1 input (Linear level, Resistance: 1000 Ohm), 1 output (Linear level, Resistance: 600 Ohm)
Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
Local Recording	Available
TF Card Storage	Available, up to 32G
Upgrade Online	Available
Password Protection	Available
Network Port	One RJ45 10/100M self-adaptive Ethernet port
Applicable Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP, UPNP, DDNS, Profile S
Alarm	2 alarm inputs, 1 relay output
Power Supply	V6202IR-TA: PoE IEEE 802.3af Class 3/12VDC/ 24VAC; V6202IR-TX: 12VDC/24VAC
Power Consumption	V6202IR-TA: <11W (1.5A at 12VDC); V6202IR-TX: <20W (w/heater) (2.5A at 12VDC)
Operating Temperature	V6202IR-TA: -4°F~140°F (-20°C~60°C); V6202IR-TX: -40°F~140°F (-40°C~60°C) (w/heater)
Storage Temperature	-4°F~140°F (-20°C~60°C)
Operating Humidity	0%~90% RH (non-condensing)
Dimensions (HxWxL)	3.74"×4.02"×12.91" (95mm×102mm×328mm)
Box Dimensions (LxWxH)	14.96"×7.87"×5.91" (380mm×200mm×150mm)
Unit Weight	3.86lbs. (1.75kg)
Shipping Weight	4.92lbs. (2.23kg)

Certifications and Approval

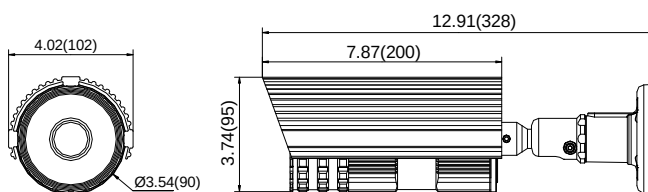
Product Certifications	IK10: IEC62262 ¹ , CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ² , FCC: Part 15 Subpart B Class B ³ , UL 60950-1 ⁴ , ISO 9001:2008
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Certificate No.: ¹EFSN14040805E-L02; ²CTL1401100052-EC; ³CTL1401100052-FC; ⁴E232008-A34-UL.

Ordering information

V6202IR-TA220F	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 30m IR range, PoE/12VDC/24VAC, 4-9mm motorized zoom lens
V6202IR-TA220H	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 50m IR range, PoE/12VDC/24VAC, 9-22mm motorized zoom lens
V6202IR-TA220P	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 30m IR range, PoE/12VDC/24VAC, 2.8-12mm motorized zoom lens
V6202IR-TX224F	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 30m IR range, w/heater, 12VDC/24VAC, 4-9mm motorized zoom lens
V6202IR-TX224H	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 50m IR range, w/heater, 12VDC/24VAC, 9-22mm motorized zoom lens
V6202IR-TX224P	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 30m IR range, w/heater, 12VDC/24VAC, 2.8-12mm motorized zoom lens

Dimensions

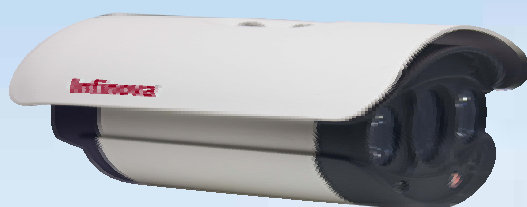


(Unit: inch, in the parentheses is mm)

V6202IR-H00 & V6202IR-H01 Series

HD 1MP and 1.3MP IR IP Fixed Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" progressive scan CMOS sensor**
- **Built-in dot matrix IR illuminators, at 850nm wavelength, up to 30 meters illumination distance**
- **The output power of the IR illuminator can be automatically adjusted according to the lighting condition**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG**
- **Resolution up to 960P or 720P**
- **Smooth videos, with the frame rate up to 30fps**
- **Support Horizontal/Vertical Mirror**
- **Supports corridor mode**
- **Support WDR function**
- **Backlight Compensation**
- **Local Recording**
- **Up to four ROI (Region of Interest) areas**
- **Up to four definable motion detection areas**
- **Up to four definable privacy mask areas**
- **Support video mask alarm**
- **Alarms triggered by motion detection link with email sending and FTP upload**
- **Support simultaneous access and parameter setting via Web Server from multiple clients**
- **Compatible or able to integrate with Infinoa V2216 and other digital video surveillance software**
- **Standard SDK is provided for easy integration with other systems**
- **Onvif Profile S**
- **Compact structure for easy installation**
- **Support analog video output**
- **12VDC power supply**
- **IP66 environmental rating**

V6202IR-H00 & V6202IR-H01 series HD 1MP and 1.3MP IR IP fixed camera features 1/3" progressive scan CMOS sensor and built-in 3.0 megapixel fixed lens (4mm/6mm/8mm/12mm optional). With H.264/M-JPEG compression format utilized, this camera can output HD full-frame videos with the resolution up to 960P or 720P. The built-in dot matrix IR illuminators allow a maximum of 30 meters illumination distance (the distance will be different for different lenses). It's a perfect solution for a 24x7 around-the-clock surveillance.

The camera supports the function of strengthening ROI encoding, so as to improve the image quality of key areas under low-band network environment.

The camera supports three simultaneous video streams. It also provides motion detection, privacy mask, video mask alarm, image snapshot, local recording, noise deduction, backlight compensation, WDR functions, etc. Alarm can be associated with email sending and FTP upload.

Compact structure makes it easy to install.

V6202IR-H00 & V6202IR-H01 series is widely used in normal buildings, supermarkets, hotels, shops, parks, schools, factories, warehouses, underground parking lots and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	72.4dB
S/N Ratio	50dB
Lens	F1.6, f=4mm, 6mm, 8mm, 12mm
IR Illumination Distance	30m (Max)
Day/Night Functionality	ICR
Sensitivity	0lux(IR on)
Exposure	Scene mode, manual mode, shutter priority mode
Shutter	Auto/Manual (1/30s~1/8000s)
White Balance	Auto/Manual/Incandescent light/ Cool white fluorescent light/Sun light/Cloudy/Natrium light
D-WDR	Available
Gain Control	Auto/Manual (maximum: 64X)
Noise Reduction	3D
Mirror	Horizontal/Vertical
Corridor Mode	Available
Image Effect	Brightness, sharpness, hue, contrast, saturation adjustable
Video Compression	H.264 main profile/M-JPEG
Maximum Resolution	V6202IR-H00: 1280×720@H.264/M-JPEG V6202IR-H01: 1280×960@H.264/M-JPEG
Optional Resolution	V6202IR-H00: Major stream: 1280×720 Minor stream: 640×480, 320×240 V6202IR-H01: Major stream: 1280×960, 1280×720; Minor stream: 640×480, 320×240
Maximum Frame Rate	V6202IR-H00: 30fps@1280×720 V6202IR-H01: 30fps@1280×960
Data Rate	Variable bit rate; Constant bit rate: Major stream: 256Kbps~10000Kbps; Minor stream: 256Kbps~2000Kbps

Network Delay	≤ 180ms
Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
ROI	Up to 4 regions
Local Recording	Available
Upgrade Online	Available
Password Protection	Available
Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Analog Video Output	Available via BNC port
Network Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, Qos, PPPoE, DNS, DDNS, ARP, ICMP, UPnP
Power Supply	12VDC
Power Consumption	<7W <10W (w/ heater)
Operating Temperature	-4° F ~ 140° F (-20° C ~ 60° C) -40° F ~ 140° F (-40° C ~ 60° C) (w/ heater)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	2.64"×4.35"×6.83" (67mm×110.4mm×173.5mm)
Box Dimensions (L×W×H)	9.17"×6.58"×5.83" (233mm×167mm×148mm)
Unit Weight	1.37lbs. (0.62kg)
Shipping Weight	1.87lbs. (0.85kg)

Certifications and Approval

Product	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , ISO 9001: 2008
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Certificate No.: ¹CTL1404150729-EC; ²CTL1404150729-FC.

Ordering information

V6202IR-H0025A	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, 12VDC, 4mm fixed lens
V6202IR-H0025B	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, 12VDC, 6mm fixed lens
V6202IR-H0025C	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, 12VDC, 8mm fixed lens
V6202IR-H0025D	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, 12VDC, 12mm fixed lens
V6202IR-H0125A	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.3Mpx, 12VDC, 4mm fixed lens
V6202IR-H0125B	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.3Mpx, 12VDC, 6mm fixed lens
V6202IR-H0125C	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.3Mpx, 12VDC, 8mm fixed lens
V6202IR-H0125D	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.3Mpx, 12VDC, 12mm fixed lens

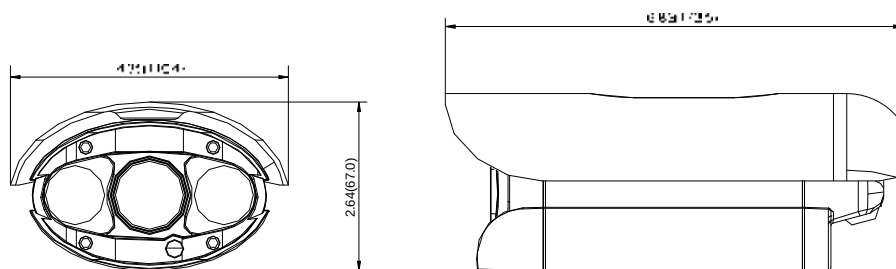
Note: The models mentioned above have no heaters. If needed, please add X to the end of the models .For example:

V6202IR-H0025AX	HD Megapixel IR IP camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, w/ heater, 12VDC, 4mm fixed lens
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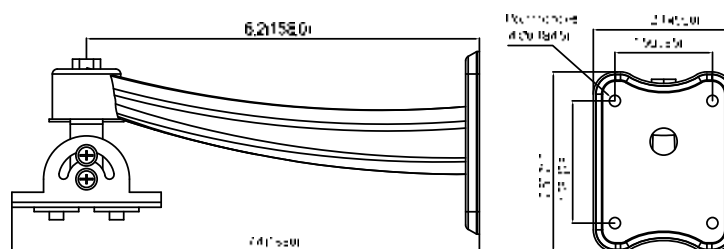
Optional Products

V1554-6	Camera mount, 6 inch high
N3925-12D-1	Exterior power, 100~240VAC input, 12VDC output, 1.5A

Dimensions



Camera



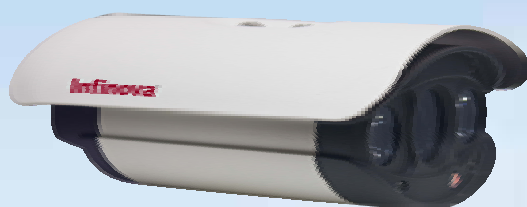
Mount

(Unit: inch, in the parentheses is mm)

V6202IR-H02 Series

HD 2MP IR IP Fixed Camera

Infinova[®]
The Integrator's Manufacturer



- 1/2.8" progressive scan CMOS sensor
- Built-in dot matrix IR illuminators, at 850nm wavelength, up to 30 meters illumination distance
- The output power of the IR illuminator can be automatically adjusted according to the lighting condition
- IR-Cut Removable (ICR) Filter for Day/Night switching
- Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG
- Resolution up to 1080P
- Smooth videos, with the frame rate up to 30fps
- Support Horizontal/Vertical Mirror
- Support Corridor mode
- Support WDR function
- Backlight Compensation
- Local Recording
- Up to four ROI (Region of Interest) areas
- Up to four definable motion detection areas
- Up to four definable privacy mask areas
- Support video mask alarm
- Alarms triggered by motion detection link with email sending and FTP upload
- Support simultaneous access and parameter setting via Web Server from multiple clients
- Compatible or able to integrate with Infinova V2216 and other digital video surveillance software
- Standard SDK is provided for easy integration with other systems
- Onvif Profile S
- Compact structure for easy installation
- Support analog video output
- 12VDC power supply
- IP66 environmental rating

V6202IR-H02 series HD 2MP IR IP fixed camera features 1/2.8" progressive scan CMOS sensor and built-in 3.0 megapixel fixed lens (4mm/6mm/8mm/12mm optional). With H.264/M-JPEG compression format utilized, this camera can output HD full-frame videos with the resolution up to 1080P. The built-in dot matrix IR illuminators allow a maximum of 30 meters night illumination distance (the distance will be different for different lenses). The output power of the illuminator can be automatically adjusted according to the lighting condition, thus the IR illuminators will be free of full-load operation. This also lowers the overall power consumption and prolongs the lifespan of the device.

The camera supports the function of strengthening ROI encoding, so as to improve the image quality of key areas under low-band network environment.

The camera supports three simultaneous video streams. It also provides motion detection, privacy mask, video mask alarm, image snapshot, local recording, noise deduction, backlight compensation and WDR functions. Alarm can be associated with email sending and FTP upload.

Compact structure makes it easy to install.

V6202IR-H02 series is widely used in normal buildings, supermarkets, hotels, shops, parks, schools, factories, warehouses, underground parking lots and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/2.8" progressive scan CMOS
S/N Ratio	50dB
Dynamic Range	72dB
Lens	F1.6, f=4mm, 6mm, 8mm, 12mm
IR Illumination Distance	30m (Max)
Day/Night Functionality	ICR
Sensitivity	0lux(IR on)
Exposure	Scene mode, manual mode, shutter priority mode
Shutter	Auto/Manual (1/30s~1/8000s)
White Balance	Auto/Manual/Incandescent light/ Cool white fluorescent light/Sun light/Cloudy/Natrium light
WDR	Available
Gain Control	Auto/Manual (maximum: 64X)
Noise Reduction	3D
Mirror	Horizontal/Vertical
Corridor Mode	Available
Image Effect	Brightness, sharpness, hue, contrast, saturation adjustable
Video Compression	H.264 main profile/M-JPEG
Maximum Resolution	1920×1080@H.264/M-JPEG
Optional Resolution	Major stream: 1920×1080, 1280×960, 1280×720 Minor stream: 640×480, 320×240
Maximum Frame Rate	30fps@1920×1080
Data Rate	Variable bit rate; Constant bit rate: Major stream: 256Kbps~10000Kbps; Minor stream: 256Kbps~2000Kbps
Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks

ROI	Up to 4 regions
Network Delay	≤180ms
Local Recording	Available
Upgrade Online	Available
Password Protection	Available
Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Analog Video Output	Available via BNC port
Network Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, Qos, PPPoE, DNS, DDNS, ARP, ICMP, UPnP
Power Supply	12VDC
Power Consumption	<7W <10W(w/heater)
Operating Temperature	-4° F ~ 140° F (-20° C ~ 60° C) -40° F ~ 140° F (-40° C ~ 60° C) (w/heater)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	2.64"×4.35"×6.83" (67mm×110.4mm×173.5mm)
Box Dimensions (L×W×H)	9.17"×6.58"×5.83" (233mm×167mm×148mm)
Unit Weight	1.37lbs. (0.62kg)
Shipping Weight	1.87lbs. (0.85kg)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , ISO 9001: 2008

Certificate No.: ¹CTL1406131359-EC; ²CTL1406131359-FC.

Ordering information

V6202IR-H0225A	HD Megapixel IR IP camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 12VDC, 4mm fixed lens
V6202IR-H0225B	HD Megapixel IR IP camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 12VDC, 6mm fixed lens
V6202IR-H0225C	HD Megapixel IR IP camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 12VDC, 8mm fixed lens
V6202IR-H0225D	HD Megapixel IR IP camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, 12VDC, 12mm fixed lens

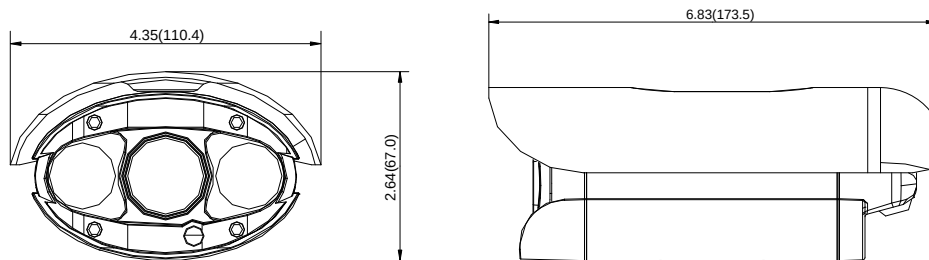
Note: The models mentioned above have no heaters. If needed, please add X to the end of the models .For example:

V6202IR-H0225AX	HD Megapixel IR IP camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, w/ heater, 12VDC, 4mm fixed lens
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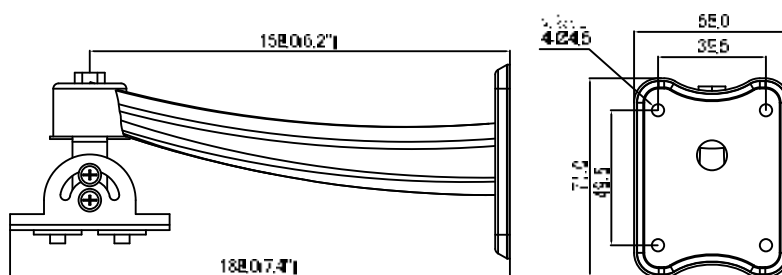
Optional Products

V1554-6	Camera mount, 6 inch high
N3925-12D-1	Exterior power, 100~240VAC input, 12VDC output, 1.5A

Dimensions



Camera



Mount

(Unit: inch, in the parentheses is mm)

V6812-T0 Series

HD 1MP IP Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" progressive scan CMOS sensor**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Onvif Profile S**
- **H.264 High profile/M-JPEG encoding**
- **Full-frame HD video output, with the resolution up to 1280×720@30fps**
- **High encoding efficiency, low data rate and high image quality**
- **Smooth videos and clear images of moving objects, free from ghost and smear**
- **Provide WDR function**
- **Supports storage with TF card**
- **Supports active video tampering**
- **Motion detection and privacy mask**
- **Bi-directional audio, G.711**
- **Supports alarm input and output**
- **PoE power supply**
- **Surface, Bracket or Recessed Mount**
- **3-axis adjustment**

V6812-T0 series HD 1MP IP minidome camera features 1/3" progressive scan CMOS sensor and built-in HD megapixel lens with the focal length of 2.8~12mm. With H.264 High profile/ M-JPEG compression format utilized, this camera can output HD full-frame videos with the resolution up to 1280×720@30fps.

V6812-T0 series IP minidome camera provides motion detection and privacy mask function which can protect certain private areas from being seen by operators. In addition, Power over Ethernet (PoE) greatly simplifies transmission cable.

Compact structure makes it easy to install. Also, this camera provides 3-axis adjustment, easy to adjust the monitoring angle.

V6812-T0 series IP minidome camera is suitable for financial institutions, telecommunications, governments, schools, airports, factories, hotels, museums, city streets and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	83.5dB
S/N Ratio	50dB
Lens	F1.4, f=2.8-12mm
Angle of View (Horizontal)	92°~27.2°
Camera Angle Adjustment	X (Panning): 0°~360°; Y (Tilting): -75°~75°; Z (Rotating): 0°~360°
Day/Night Functionality	ICR
Sensitivity	Color mode: 0.5 lux @ F1.4 (30IRE, AGC ON); B/W mode: 0.1 lux @ F1.4 (30IRE, AGC ON)
Exposure	Scene Mode, Manual mode, Shutter priority mode
Shutter	Auto/Manual (1/25s~1/8000s)
White Balance	Auto/Manual/Incandescent light/ Cool white fluorescent light/Sun light/Cloudy/Natrium light
Gain Control	Auto/Manual
Noise Reduction	3D
Video Compression	H.264 High profile/M-JPEG
Maximum Resolution	1280×720@H.264/M-JPEG
Optional Resolution	Major stream: 1280×720, 1024×768, 800×600; Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240
Maximum Frame Rate	30fps @1280×720
Data Rate	Variable bit rate; Constant bit rate: 256Kbps~10000Kbps
Audio	Audio Compression: G.711-u; 1 input (Linear level, Resistance: 1000 Ohm), 1 output (Linear level, Resistance: 600 Ohm)

Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
Local Recording	Available
TF Card Storage	Available, up to 32G
Upgrade Online	Available
Password Protection	Available
Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Applicable Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP, UPNP, DDNS, Profile S
Alarm	1 alarm input, 1 relay output
Power Supply	PoE IEEE 802.3af Class 2
Power Consumption	<3W
Operating Temperature	14° F ~ 122° F (-10° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	3.88"×5.32" (98.5mm ×135mm)
Box Dimensions (L×W×H)	8.03"×7.48"×7.13" (204 mm×190 mm×181mm)
Unit Weight	1.06lbs. (0.48kg)
Shipping Weight	2.01lbs. (0.91kg)

Certifications and Approval

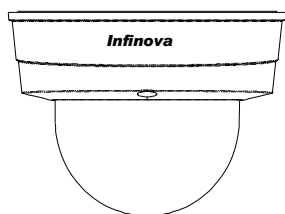
Product	CE/EMC: EN 55022, EN 55024 ¹ , FCC: Part 15
Certifications	Subpart B ² , UL 60950-1 ³ , ISO 9001:2008

Certificate No.: ¹EESZF01170017-1R1; ²EESZF01170017-2R1; ³E232008-A27-UL.

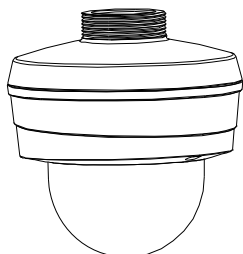
Ordering information

- V6812-T0020SP HD Megapixel IP minidome camera, 3-axis, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, PoE, Surface mount, 2.8-12mm vari-focal lens
- V6812-T0020PP HD Megapixel IP minidome camera, 3-axis, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, PoE, Bracket mount, 2.8-12mm vari-focal lens
- V6812-T0020RP HD Megapixel IP minidome camera, 3-axis, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, PoE, Recessed ceiling mount, 2.8-12mm vari-focal lens.

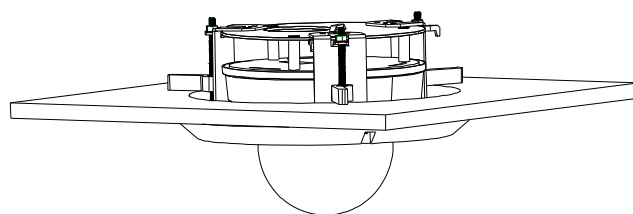
Mounting



Surface Mount

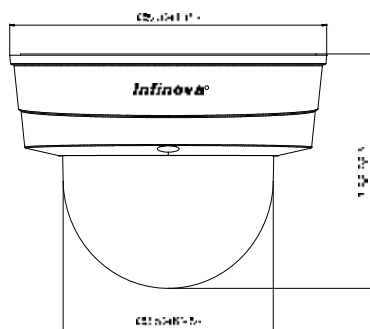


Bracket Mount

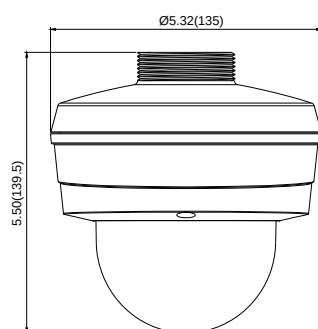


Recessed Mount

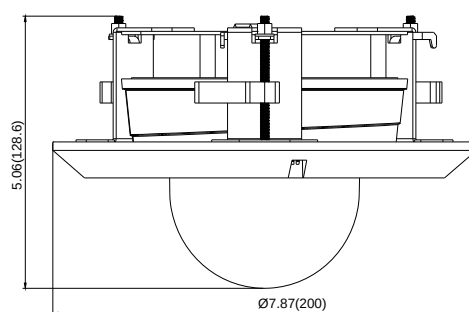
Dimensions



Surface Mount



Bracket Mount



Recessed Mount

(Unit: inch, in the parentheses is mm)

V6822-T0 Series

HD 1MP and 2MP Vandal Resistant Low Light IP Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" progressive scan CMOS sensor**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Supports Digital WDR function**
- **Onvif Profile S**
- **Sensitivity: 0.01 lux**
- **High-resolution image signal output: 1920×1080@30fps or 1280×720@30fps**
- **Small bandwidth occupancy and high image quality**
- **Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG**
- **Smooth dynamic video replay**
- **Supports anti-reflection function**
- **Bi-directional audio, G.711**
- **Up to four definable motion detection areas**
- **Up to four definable privacy mask areas**
- **Supports active video tampering**
- **Local Recording**
- **Supports storage with TF card**
- **2 alarm inputs, 1 relay output**
- **Supports multiple ways to handle alarms, such as email sending, FTP upload and relay output**
- **Supports simultaneous multi-user access and parameter configuration via Web Server**
- **Compatible with Infinova's V2216, V2218 and other digital video management software**
- **Provides standard SDK, easily incorporated with digital surveillance systems from a different supplier**
- **Supports public access**
- **3-axis adjustment**
- **With analog video debugging interface**

V6822-T0 series HD megapixel low light IP minidome camera features 1/3" progressive scan CMOS sensor and built-in HD megapixel lens with the focal length of 3.0-9.0mm. With H.264 High profile/M-JPEG video compression format utilized, this series can output the real-time images with the resolution up to 1920×1080@30fps or 1280×720@30fps.

V6822-T0 series supports motion detection functions, which are able to link with alarm to store and snapshot images. Privacy mask can protect certain private area from being seen by operator. Power over Ethernet (PoE) greatly simplifies transmission cable.

V6822-T0 series minidome camera is suitable for financial institutions, telecommunications, governments, schools, airports, factories, hotels, museums, city streets and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	72.4dB
Lens	F1.2, f=3.0-9.0mm
Camera Angle Adjustment	X (Panning): 0°~340°; Y (Tilting): 0°~80°; Z (Rotating): 0°~340°
Day/Night Functionality	ICR
Sensitivity	Color mode: 0.05 lux @ F1.2 (30IRE, AGC ON); B/W mode: 0.01 lux @ F1.2 (30IRE, AGC ON)
Exposure	Scene Mode, Manual mode, Shutter priority mode
Shutter	Auto/Manual (1/25s~1/8000s)
White Balance	Auto/Manual/Incandescent light/Cool white fluorescent light/Sun light/Cloudy/Natrium light
Gain Control	Auto/Manual
Noise Reduction	3D
Video Compression	H.264 High profile/M-JPEG
Maximum Resolution	V6822-T02: 1920×1080@H.264/M-JPEG; V6822-T00: 1280×720@H.264/M-JPEG
Optional Resolution	V6822-T02: Major stream: 1920×1080, 1280×1024, 1280×960, 1280×720, 1024×768, 800×600, Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240; V6822-T00: Major stream: 1280×720, 1024×768, 800×600, Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240
Maximum Frame Rate	V6822-T02: 30fps@1920×1080; V6822-T00: 30fps@1280×720
Data Rate	Variable bit rate; Constant bit rate: 256Kbps~10000Kbps
Audio	Audio Compression: G.711-u; 1 input (Linear level, Resistance: 1000 Ohm), 1 output (Linear level, Resistance: 600 Ohm)

Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
Local Recording	Available
TF Card Storage	Available, up to 32G
Upgrade Online	Available
Password Protection	Available
Alarm	2 alarm inputs, 1 relay output
Network Port	One RJ45 10/100M self-adaptive Ethernet port
Applicable Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP, UPNP, DDNS, Profile S
Power Supply	PoE IEEE 802.3af Class 2/12VDC/24VAC
Power Consumption	< 4W
Operating Temperature	14°F~122°F (-10°C~50°C)
Storage Temperature	-4°F~140°F (-20°C~60°C)
Operating Humidity	0%-90% RH (non-condensing)
Unit Dimensions (H×Ø)	4.07"×Ø 5.20" (103.3mm×Ø 132mm)
Unit Weight	1.76lbs. (0.80kg)
Shipping Weight	2.31lbs. (1.05kg)
Impact Resistance	IK10

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 50130-4-2011 ¹ , FCC: Part 15 Subpart A ² , UL 60950-1 ³ , IK10: IEC62262 ⁴ , ISO 9001:2008
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Certificate No.: ¹SET2013-00354; ²SET2013-00370; ³E232008-A29-UL;

⁴CTL1401100053-IK10.

Ordering information

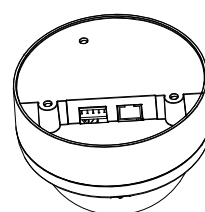
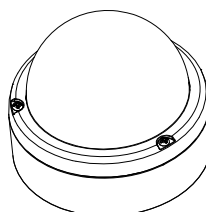
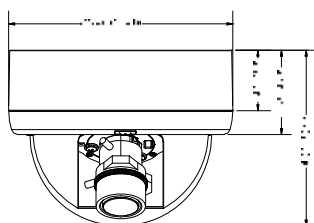
V6822-T0220SF	HD Megapixel IP minidome camera, Vandal-resistant, 3-axis, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0 Mpx, PoE/12VDC/24VAC, Surface mount, 3.0-9.0mm vari-focal lens
V6822-T0020SF	HD Megapixel IP minidome camera, Vandal-resistant, 3-axis, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0 Mpx, PoE/12VDC/24VAC, Surface mount, 3.0-9.0mm vari-focal lens

ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC
N3928	Power Supply, 24VAC with 4, 8 or 16 Outputs

Dimensions



(Unit: inch, in the parentheses is mm)

V6822-TA Series

Infinova[®]
The Integrator's Manufacturer

HD 1MP and 2MP Vandal Resistant Low Light IP Minidome Camera with Auto Focus



- **1/3" progressive scan CMOS sensor**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Motorized zoom lens for Auto Focus**
- **Supports WDR function**
- **Onvif Profile S**
- **Sensitivity: 0.01 lux**
- **High-resolution image signal output: 1920×1080@30fps or 1280×720@30fps**
- **Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG**
- **Supports storage with TF card**
- **Bi-directional audio, G.711**
- **Motion detection, privacy mask, local recording**
- **Supports active video tampering**
- **2 alarm inputs, 1 relay output**
- **Multiple ways to handle alarms**
- **Compatible with Infinova's V2216 network video management software, easily incorporated with other video surveillance software**
- **Provides standard SDK, easily incorporated with digital surveillance systems from a different supplier**
- **With analog video debugging interface**
- **Surface Mount, 3-axis adjustment**
- **Rugged design (IK10)**

V6822-TA series HD 1MP and 2MP low light IP minidome camera features 1/3" progressive scan CMOS sensor and built-in 3.0-9.0mm motorized zoom lens. With H.264 High profile/M-JPEG video compression format utilized, this series can output the real-time images with the resolution up to 1920×1080@30fps or 1280×720@30fps.

With the built-in motorized zoom lens, the camera can focus clear in several seconds when click the target on the web page. Besides, the camera supports motion detection functions, which are able to link with alarm to store and snapshot images. Privacy mask can protect certain private area from being seen by operator. Power over Ethernet (PoE) greatly simplifies transmission cable.

V6822-TA series minidome camera is suitable for financial institutions, telecommunications, governments, schools, airports, factories, hotels, museums, city streets and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	72.4dB
Lens	F1.2, f=3.0-9.0mm
Camera Angle Adjustment	X (Panning): 0°~340°; Y (Tilting): 0°~80°; Z (Rotating): 0°~340°
Day/Night Functionality	ICR
Sensitivity	Color mode: 0.05 lux @ F1.2 (30IRE, AGC ON); B/W mode: 0.01 lux @ F1.2 (30IRE, AGC ON)
Exposure	Scene mode, Manual mode, Shutter priority mode
Shutter	Auto/Manual (1/25s~1/8000s)
White Balance	Auto/Manual/Incandescent light/Cool white fluorescent light/Sun light/Cloudy/Natrium light
Gain Control	Auto/Manual
Noise Reduction	3D
Video Compression	H.264 High profile/M-JPEG
Maximum Resolution	V6822-TA2: 1920×1080@H.264/M-JPEG; V6822-TA0: 1280×720@H.264/M-JPEG
Optional Resolution	V6822-TA2: Major stream: 1920×1080, 1280×1024, 1280×960, 1280×720, 1024×768, 800×600, Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240; V6822-TA0: Major stream: 1280×720, 1024×768, 800×600, Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240
Maximum Frame Rate	V6822-TA2: 30fps@1920×1080; V6822-TA0: 30fps@1280×720
Data Rate	Variable bit rate; Constant bit rate: 256Kbps~10Mbps
Audio	Audio Compression: G.711-u; 1 input (Linear level, Resistance: 1000 Ohm), 1 output (Linear level, Resistance: 600 Ohm)

Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
Network Delay	≤250ms
Local Recording	Available
TF Card Storage	Available, up to 32G
Upgrade Online	Available
Password Protection	Available
Alarm	2 alarm inputs, 1 relay output
Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Applicable Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP, UPNP, DDNS, Profile S
Power Supply	PoE IEEE 802.3af Class 2/12VDC/24VAC
Power Consumption	< 5W
Operating Temperature	14°F~122°F (-10°C~50°C)
Storage Temperature	-4°F~140°F (-20°C~60°C)
Operating Humidity	0%~90% RH (non-condensing)
Unit Dimensions (H×Ø)	4.07"×5.20" (103.3mm×132mm)
Unit Weight	1.76lbs. (0.80kg)
Shipping Weight	2.31lbs. (1.05kg)
Impact Resistance	IK10
Certifications and Approval	
Product Certifications	IK10: IEC62262 ¹ , CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ² , FCC: PART 15 Subpart B Class B ³ , ISO 9001:2008

Certificate No.: ¹ CTL1401100053-IK10; ² CTL1405121017-EC; ³ CTL1405121017-FC

Ordering information

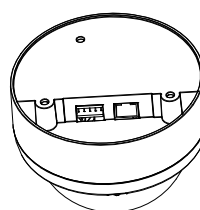
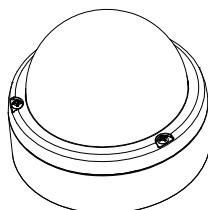
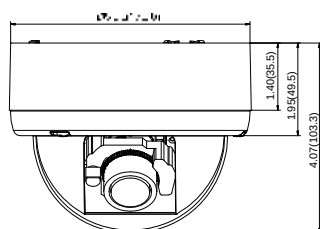
V6822-TA220SF	HD 2.0 Megapixel IP minidome camera, Vandal-resistant, 3-axis, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0Mpx, PoE/12VDC/24VAC, Surface mount, 3.0-9.0mm motorized zoom lens
V6822-TA020SF	HD 1.0 Megapixel IP minidome camera, Vandal-resistant, 3-axis, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 1.0Mpx, PoE/12VDC/24VAC, Surface mount, 3.0-9.0mm motorized zoom lens

ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC
N3928	Power Supply, 24VAC with 4, 8 or 16 Outputs

Dimensions



(Unit: inch, in the parentheses is mm)

V6822-TA3 Series

HD 3MP Indoor Vandal Resistant Low Light IP Minidome Camera with Auto Focus

Infinova[®]
The Integrator's Manufacturer



- **1/3" progressive scan CMOS sensor**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Motorized zoom lens for Auxiliary Focus**
- **Supports WDR function**
- **Onvif Profile S**
- **Sensitivity: 0.01 lux**
- **High-resolution image signal output: 2048×1536@20fps or 1920×1080@30fps**
- **Small bandwidth occupancy and high image quality**
- **Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG**
- **Smooth dynamic video replay**
- **Supports anti-reflection function**
- **Bi-directional audio, G.711**
- **2 alarm inputs, 1 relay output**
- **Supports multiple ways to trigger and handle alarms**
- **Up to four definable motion detection areas**
- **Up to four definable privacy mask areas**
- **Supports active video tampering**
- **Local Recording**
- **Supports storage with TF card**
- **Supports simultaneous multi-user access and parameter configuration via Web Server**
- **Compatible with Infinova's V2216 and other digital video surveillance software,**
- **Provides standard SDK, easily integrated with other video surveillance software**
- **3-axis adjustment**
- **With analog video debugging interface**

Infinova's V6822-TA3 series HD 3MP low light IP minidome camera features 1/3" progressive scan CMOS sensor and built-in 3.0-9.0mm motorized zoom lens. With H.264 High profile/ M-JPEG video compression format utilized, this series can output the real-time images with the resolution up to 2048×1536@20fps or 1920×1080@30fps.

With the built-in HD motorized zoom lens, the camera can focus clear in several seconds when click the target on the web page. Besides, the camera supports motion detection functions, which are able to link with alarm to store and snapshot images. Privacy mask can protect certain private area from being seen by operator. Power over Ethernet (PoE) greatly simplifies transmission cable.

V6822-TA3 series minidome camera is suitable for financial institutions, telecommunications, governments, schools, airports, factories, hotels, museums, city streets and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	72.4dB
Lens	F1.2, f=3.0-9.0mm
Camera Angle Adjustment	X (Panning): 0°~340°; Y (Tilting): 0°~80°; Z (Rotating): 0°~340°
Day/Night Functionality	ICR
Sensitivity	Color mode: 0.07 lux @ F1.2 (30IRE, AGC ON); B/W mode: 0.01 lux @ F1.2 (30IRE, AGC ON)
Exposure	Scene mode, Manual mode, Shutter priority mode
Shutter	Auto/Manual (1/25s~1/8000s)
White Balance	Auto/Manual/Incandescent light/Cool white fluorescent light/Sun light/Cloudy/Natrium light
Gain Control	Auto/Manual
Noise Reduction	3D
Video Compression	H.264 High profile/M-JPEG
Maximum Resolution	2048×1536@ H.264/M-JPEG
Optional Resolution	H.264 Major stream: 2048×1536, 1920×1080, 1280×1024, 1280×960, 1280×720, 1024×768, 800×600; H.264 Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240
Maximum Frame Rate	20fps@2048×1536; 30fps@1920×1080
Data Rate	Variable bit rate; Constant bit rate: 256Kbps~10000Kbps
Network Delay	≤250ms
Audio	Audio Compression: G.711-u; 1 input (Linear level, Resistance: 1000 Ohm), 1 output (Linear level, Resistance: 600 Ohm)

Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
Local Recording	Available
TF Card Storage	Available, up to 32G
Upgrade Online	Available
Password Protection	Available
Alarm	2 alarm inputs, 1 relay output
Network Port	One RJ45 10/100M self-adaptive Ethernet port
Applicable Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP, UPNP, DDNS, Profile S
Power Supply	PoE IEEE 802.3af Class 2/12VDC/24VAC
Power Consumption	< 5W
Operating Temperature	14°F~122°F (-10°C~+50°C)
Storage Temperature	-4°F~140°F (-20°C~+60°C)
Operating Humidity	0%~90% RH (non-condensing)
Unit Dimensions (H×Ø)	4.07"×5.20" (103.3mm×132mm)
Unit Weight	1.76lbs. (0.80kg)
Shipping Weight	2.31lbs. (1.05kg)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: PART 15 Subpart B Class B ² , UL 60950-1 ³ , ISO 9001:2008

Certificate No.: ¹ CTL1405121017-EC, ² CTL1405121017-FC, ³ E232008-A33-UL

Ordering information

V6822-TA320SF HD 3.0 Megapixel IP minidome camera,
Vandal-resistant, 3-axis, Day/night, 1/3 inch CMOS
sensor, H.264/M-JPEG, 3.0Mpx, PoE/12VDC/24VAC,
Surface mount, 3.0-9.0mm motorized zoom lens

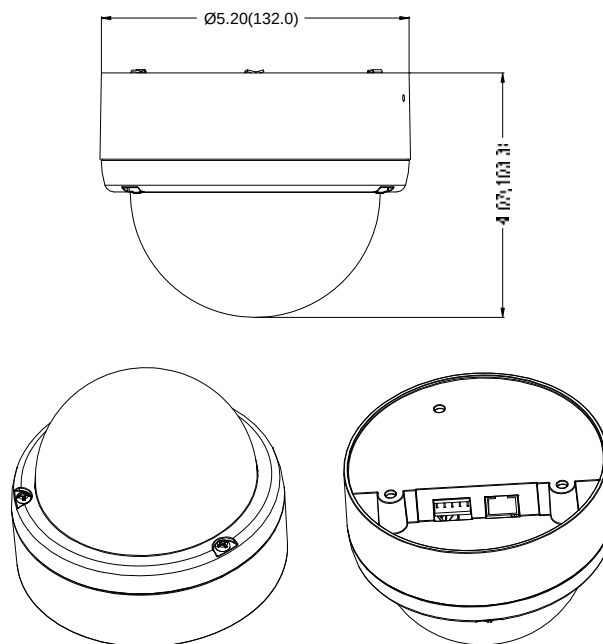
ACCESSORIES

Power Supplies

N3921-24A-1 Power Supply, 24VAC, 20VA, Plug-In, 120VAC

N3921-24A-2 Power Supply, 24VAC, 20VA, Plug-In, 230VAC

Dimensions

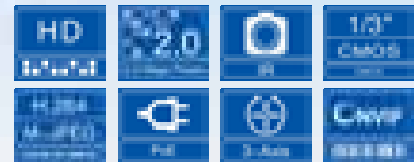


(Unit: inch, in the parentheses is mm)

V6822IR-TA Series

HD 2MP Vandal Resistant IR IP Minidome Camera with Auto Focus

Infinova[®]
The Integrator's Manufacturer



- 1/3" low light progressive scan CMOS sensor
- IR-Cut Removable (ICR) Filter for Day/Night switching
- Motorized zoom lens for Auxiliary Focus
- High-performance IR illuminators, 20m illumination distance
- Smart-IR technology, no image overexposure or underexposure
- Supports WDR function
- Onvif Profile S
- High-resolution image signal output: 1920×1080@30fps
- Small bandwidth occupancy and high image quality
- With the maximum frame rate up to 30fps.
- Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG
- Smooth dynamic video replay
- Supports anti-reflection function
- Up to four definable motion detection areas
- Up to four definable privacy mask areas
- Supports active video tampering
- Local Recording
- Supports storage with TF card
- Bi-directional audio, G.711
- 2 alarm inputs, 1 relay output
- Supports multiple ways to handle alarms, such as email sending, FTP upload and relay output
- Supports simultaneous multi-user access and parameter configuration via Web Server
- Compatible with Infinova's V2216 and other digital video surveillance software,
- Provides standard SDK, easily integrated with other video surveillance software
- Supports public access
- Surface Mount, 3-axis adjustment
- With analog video debugging interface

V6822IR-TA series HD 2MP IR IP minidome camera features 1/3" progressive scan CMOS sensor and built-in 3.0-9.0mm motorized zoom lens. With H.264 High profile/M-JPEG video compression format utilized, this series can output real-time images with the resolution up to 1920×1080@30fps. The camera supports three simultaneous video streams. It features bi-directional audio with G.711 compression.

With the built-in motorized zoom lens, the camera can focus clear in several seconds when click the target on the web page. Low power consumption and a unique light control technology ensure a long IR illuminator service life. With Smart-IR technology, the camera effectively avoids the image overexposed and underexposed, and ensures natural color and more details.

V6822IR-TA series minidome camera is the ideal choice for high-resolution surveillance under challenging lighting environments, including governments, financial institutions, telecommunications, schools, airports, factories, hotels, museums and city streets.

Technical specifications

Image Sensor	1/3" progressive scan CMOS
Dynamic Range	72.4dB
Lens	F1.2, f=3.0-9.0mm
Camera Angle Adjustment	X (Panning): 0°~340°; Y (Tilting): 0°~72°; Z (Rotating): 0°~340°
IR Wavelength	850nm
IR Illumination Distance	20m
Day/Night Functionality	ICR
Sensitivity	Color mode: 0.05 lux @ F1.2 (30IRE, AGC ON); B/W mode: 0 lux @ F1.2 (IR ON)
Exposure	Scene mode, Manual mode, Shutter priority mode
Shutter	Auto/Manual (1/25s~1/8000s)
White Balance	Auto/Manual/Incandescent light/Cool white fluorescent light/Sun light/Cloudy/Sodium light
Gain Control	Auto/Manual
Noise Reduction	3D
Video Compression	H.264 High profile / M-JPEG
Maximum Resolution	1920×1080@H.264/M-JPEG
Optional Resolution	Major stream: 1920×1080, 1280×1024, 1280×960, 1280×720, 1024×768, 800×600; Minor stream: 720×576, 720×480, 640×480, 352×288, 352×240
Maximum Frame Rate	30fps@1920×1080
Data Rate	Variable bit rate; Constant bit rate: 256Kbps ~ 10000Kbps
Audio	Audio Compression: G.711-u; 1 input (Linear level, Resistance: 1000 Ohm), 1 output (Linear level, Resistance: 600 Ohm)

Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
Network Delay	≤ 250ms
Local Recording	Available
TF Card Storage	Available, up to 32G
Upgrade Online	Available
Password Protection	Available
Alarm	2 alarm inputs, 1 relay output
Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Applicable Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP, UPNP, DDNS, Profile S
Power Supply	PoE IEEE 802.3af Class 3/12VDC/24VAC
Power Consumption	< 9W
Operating Temperature	14° F ~ 122° F (-10° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	4.07"×5.20" (103.3mm×132mm)
Unit Weight	1.87 lbs. (0.85kg)
Shipping Weight	2.54 lbs. (1.15kg)
Impact Resistance	IK10

Certifications and Approval

Product Certifications	IK10: IEC62262 ¹ , CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ² , FCC: PART 15 Subpart B Class B ³ , UL 60950-1 ⁴ , ISO 9001:2008
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Certificate No.: ¹CTL1401100053-IK10, ²CTL1401100051-EC, ³CTL1401100051-FC, ⁴E232008-A33-UL.

Ordering information

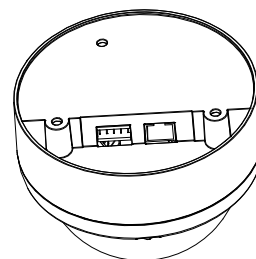
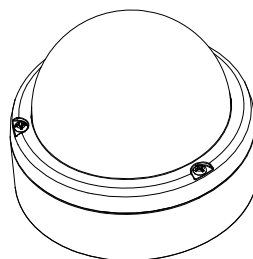
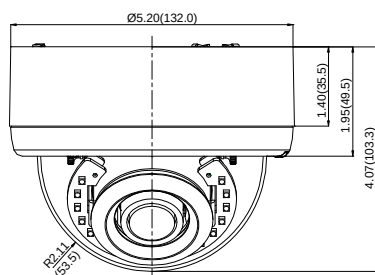
V6822IR-TA220SF	HD 2.0 Megapixel IR IP minidome camera, Vandal-resistant, 3-axis, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, 2.0 Mpx, 20m IR range, PoE/12VDC/24VAC, Surface mount, 3.0-9.0mm motorized zoom lens
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ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC
N3928	Power Supply, 24VAC with 4, 8 or 16 Outputs

Dimensions

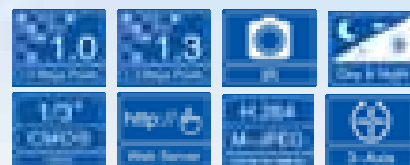


(Unit: inch, in the parentheses is mm)

V6812IR-H00 & V6812IR-H01 Series

HD 1MP and 1.3MP IR IP Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" progressive scan CMOS sensor**
- **Built-in dot matrix IR illuminators, at 850nm wavelength, up to 20 meters night vision distance**
- **The illuminator output rate can be automatically adjusted according to the lighting condition**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG**
- **With resolution up to 960P or 720P**
- **Smooth videos, with the frame rate up to 30fps**
- **Support Horizontal/Vertical Mirror**
- **Support corridor mode**
- **Support WDR function**
- **Backlight Compensation**
- **Local Recording**
- **Up to four ROI (Region of Interest) areas**
- **Up to four definable motion detection areas**
- **Up to four definable privacy mask areas**
- **Support video mask alarm**
- **Alarms triggered by motion detection link with email sending and FTP upload**
- **Support simultaneous access and parameter setting via Web Server from multiple clients**
- **Compatible or able to integrate with Infinova V2216 and other digital video surveillance software**
- **Standard SDK is provided for easy integration with other systems**
- **Onvif Profile S**
- **Compact structure for surface mount, 3-axis adjustment**
- **Support analog video output**
- **12VDC power supply**
- **IP55 environmental rating**

V6812IR-H00 & V6812IR-H01 series HD 1MP and 1.3 MP IR IP minidome camera features 1/3" progressive scan CMOS sensor and built-in 3.0 megapixel fixed lens (2.8mm/4mm/6mm/8mm/12mm optional). With H.264/M-JPEG compression format utilized, this camera can output HD full-frame videos with the resolution of 960P or 720P. The built-in dot matrix IR illuminators allow a maximum of 20 meters night vision distance (the distance will be different for different lenses). It's a perfect solution for a 24x7 around-the-clock surveillance.

The camera supports the function of strengthening ROI encoding, so as to improve the image quality of key areas under low-band network environment.

The camera supports three simultaneous video streams. It also provides motion detection, privacy mask, video mask alarm, image snapshot, local recording, noise deduction, backlight compensation and WDR functions. Alarm can be associated with email sending and FTP upload.

Compact structure makes it easy to install. Also, this camera provides 3-axis adjustment, easy to adjust the monitoring angle.

V6812IR-H00 & V6812IR-H01 series is widely used in normal buildings, supermarkets, hotels, shops, parks, schools, factories, warehouses, underground parking lots and other high-resolution surveillance applications.

Technical specifications

Image Sensors	1/3" progressive scan CMOS
Dynamic Range	72.4dB
S/N Ratio	50dB
Lens	F1.6, f=4mm, 6mm, 8mm, 12mm (For V6812IR-H00&-H01 series) F1.8, f=2.8mm(For V6812IR-H00 series)
Night Vision Distance	20m (Max)
Camera Angle Adjustment	X (Panning): 0°~360°; Y (Tilting): -75°~75°; Z (Rotating): 0°~360°
Day/Night Functionality	ICR
Sensitivity	0lux(IR on)
Exposure	Scene mode, manual mode, shutter priority mode
Shutter	Auto/Manual (1/30s~1/8000s)
White Balance	Auto/Manual/Incandescent light/ Cool white fluorescent light/Sun light/Cloudy/Natrium light
WDR	Available
Gain Control	Auto/Manual (maximum: 64X)
Noise Reduction	3D
Mirror	Horizontal/Vertical
Corridor Mode	Available
Image Effect	Brightness, sharpness, hue, contrast, saturation adjustable
Video Compression	H.264 main profile/M-JPEG
Maximum Resolution	V6812IR-H00: 1280×720@H.264/M-JPEG V6812IR-H01: 1280×960@H.264/M-JPEG
Optional Resolution	V6812IR-H00: Major stream: 1280×720 Minor stream: 640×480, 320×240 V6812IR-H01: Major stream: 1280×960, 1280×720 Minor stream: 640×480, 320×240
Maximum Frame Rate	V6812IR-H00: 30fps@1280×720 V6812IR-H01: 30fps@1280×960
Data Rate	Variable bit rate; Constant bit rate: Major stream: 256Kbps~10000Kbps; Minor stream: 256Kbps~2000Kbps

Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
ROI	Up to 4 regions
Network Delay	≤ 180ms
Local Recording	Available
Upgrade Online	Available
Password Protection	Available
Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Analog Video Output	Available via BNC port
Network Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, Qos, PPPoE, DNS, DDNS, ARP, ICMP, UPnP
Power Supply	12VDC
Power Consumption	<5W
Operating Temperature	-4° F ~ 122° F (-20° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	3.34"×Ø 4.71" (84.7mm×Ø 119.5mm)
Box Dimensions (L×W×H)	6.65 "×6.65 "×5.79" (169mm×169mm×147mm)
Unit Weight	1.43lbs. (0.65kg)
Shipping Weight	1.83lbs. (0.83kg)

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , ISO 9001: 2008
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Certificate No.: ¹CTL1404150730-EC; ²CTL1404150730-FC.

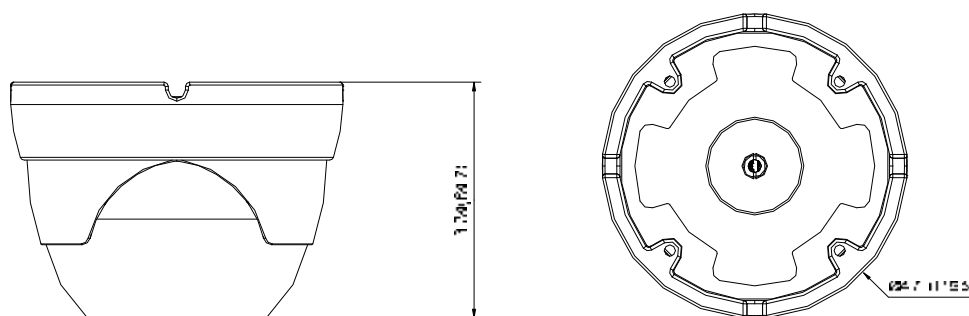
Ordering information

V6812IR-H0065SA	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.0Mpx, 12VDC, Surface mount, 4mm fixed lens
V6812IR-H0065SB	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.0Mpx, 12VDC, Surface mount, 6mm fixed lens
V6812IR-H0065SC	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.0Mpx, 12VDC, Surface mount, 8mm fixed lens
V6812IR-H0065SD	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.0Mpx, 12VDC, Surface mount, 12mm fixed lens
V6812IR-H0065ST	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.0Mpx, 12VDC, Surface mount, 2.8mm fixed lens
V6812IR-H0165SA	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.3Mpx, 12VDC, Surface mount, 4mm fixed lens
V6812IR-H0165SB	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.3Mpx, 12VDC, Surface mount, 6mm fixed lens
V6812IR-H0165SC	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.3Mpx, 12VDC, Surface mount, 8mm fixed lens
V6812IR-H0165SD	HD Megapixel IR IP minidome camera, Day/night, 1/3 inch CMOS sensor, H.264/M-JPEG, indoor, 1.3Mpx, 12VDC, Surface mount, 12mm fixed lens

Optional Product

N3925-12D-1	Exterior power, 100~240VAC input, 12VDC output, 1.5A
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Dimensions



(Unit: inch, in the parentheses is mm)

V6812IR-H02 Series

HD 2MP IR IP Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/2.8" progressive scan CMOS sensor**
- **Built-in dot matrix IR illuminators, at 850nm wavelength, up to 20 meters night vision distance**
- **The illuminator output rate can be automatically adjusted according to the lighting condition**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Three Simultaneous Video Streams: Dual H.264 & Scalable M-JPEG**
- **With resolution up to 1080P**
- **Smooth videos, with the frame rate up to 30fps**
- **Support Horizontal/Vertical Mirror**
- **Support Corridor mode**
- **Support WDR function**
- **Backlight Compensation**
- **Local Recording**
- **Up to four ROI (Region of Interest) areas**
- **Up to four definable motion detection areas**
- **Up to four definable privacy mask areas**
- **Support video mask alarm**
- **Alarms triggered by motion detection link with email sending and FTP upload**
- **Support simultaneous access and parameter setting via Web Server from multiple clients**
- **Compatible or able to integrate with Infinova V2216 and other digital video surveillance software**
- **Standard SDK is provided for easy integration with other systems**
- **Onvif Profile S**
- **Compact structure for surface mount, 3-axis adjustment**
- **Support analog video output**
- **12VDC power supply**
- **IP55 environmental rating**

V6812IR-H02 series HD 2MP IR IP minidome camera features 1/2.8" progressive scan CMOS sensor and built-in 3.0 megapixel fixed lens (4mm/6mm/8mm/12mm optional). With H.264/M-JPEG compression format utilized, this camera can output HD full-frame videos with the resolution up to 1080P. The built-in dot matrix IR illuminators allow a maximum of 20 meters night vision distance (the distance will be different for different lenses). The output power of the illuminator can be automatically adjusted according to the lighting condition, thus the IR illuminators will be free of full-load operation. This also lowers the overall power consumption and prolongs the lifespan of the device.

The camera supports the function of strengthening ROI encoding, so as to improve the image quality of key areas under low-band network environment.

The camera supports three simultaneous video streams. It also provides motion detection, privacy mask, video mask alarm, image snapshot, local recording, noise deduction, backlight compensation and WDR functions. Alarm can be associated with email sending and FTP upload.

Compact structure makes it easy to install. Also, this camera provides 3-axis adjustment, easy to adjust the monitoring angle.

V6812IR-H02 series is widely used in normal buildings, supermarkets, hotels, shops, parks, schools, factories, warehouses, underground parking lots and other high-resolution surveillance applications.

Technical specifications

Image Sensor	1/2.8" progressive scan CMOS
S/N Ratio	50dB
Dynamic Range	72dB
Lens	F1.6, f=4mm, 6mm, 8mm, 12mm
Night Vision Distance	20m (Max)
Camera Angle Adjustment	X (Panning): 0°~360°; Y (Tilting): -75°~75°; Z (Rotating): 0°~360°
Day/Night Functionality	ICR
Sensitivity	0lux(IR on)
Exposure	Scene mode, manual mode, shutter priority mode
Shutter	Auto/Manual (1/30s~1/8000s)
White Balance	Auto/Manual/Incandescent light/ Cool white fluorescent light/Sun light/Cloudy/Natrium light
WDR	Available
Gain Control	Auto/Manual (maximum: 64X)
Noise Reduction	3D
Mirror	Horizontal/Vertical
Corridor Mode	Available
Image Effect	Brightness, sharpness, hue, contrast, saturation adjustable
Video Compression	H.264 main profile/M-JPEG
Maximum Resolution	1920×1080@H.264/M-JPEG
Optional Resolution	Major stream: 1920×1080, 1280×960, 1280×720 Minor stream: 640×480, 320×240
Maximum Frame Rate	30fps@1920×1080
Data Rate	Variable bit rate; Constant bit rate: Major stream: 256Kbps~10000Kbps; Minor stream: 256Kbps~2000Kbps

Motion Detection	Up to 4 areas
Privacy Mask	Up to 4 masks
ROI	Up to 4 regions
Network Delay	≤180ms
Local Recording	Available
Upgrade Online	Available
Password Protection	Available
Network Port	1 RJ45 10/100M self-adaptive Ethernet port
Analog Video Output	Available via BNC port
Network Protocols	IPv4, IPv6, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, Qos, PPPoE, DNS, DDNS, ARP, ICMP, UPnP
Power Supply	12VDC
Power Consumption	<5W
Operating Temperature	-4° F ~ 122° F (-20° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	3.34"×Ø 4.71" (84.7mm×Ø 119.5mm)
Box Dimensions (L×W×H)	6.65 "×6.65 "×5.79" (169mm×169mm×147mm)
Unit Weight	1.43lbs. (0.65kg)
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Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , ISO 9001: 2008
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Certificate No.: ¹CTL1406131358-EC; ²CTL1406131358-FC.

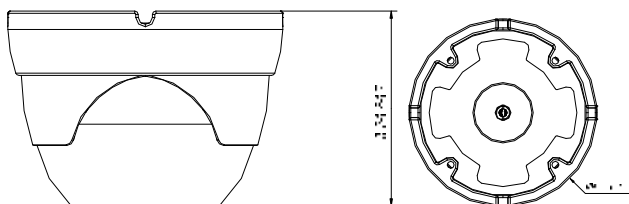
Ordering information

V6812IR-H0265SA	HD Megapixel IR IP minidome camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, indoor, 2.0Mpx, 12VDC, Surface mount, 4mm fixed lens
V6812IR-H0265SB	HD Megapixel IR IP minidome camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, indoor, 2.0Mpx, 12VDC, Surface mount, 6mm fixed lens
V6812IR-H0265SC	HD Megapixel IR IP minidome camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, indoor, 2.0Mpx, 12VDC, Surface mount, 8mm fixed lens
V6812IR-H0265SD	HD Megapixel IR IP minidome camera, Day/night, 1/2.8 inch CMOS sensor, H.264/M-JPEG, indoor, 2.0Mpx, 12VDC, Surface mount, 12mm fixed lens

Optional Product

N3925-12D-1	Exterior power, 100~240VAC input, 12VDC output, 1.5A
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Dimensions



(Unit: inch, in the parentheses is mm)

V1700N-T Series

IP PTZ Recessed Ceiling and Bracket Mount Dome Camera

Infinova[®]
The Integrator's Manufacturer



- Support H.264 & M-JPEG dual-stream encoding, three simultaneous video streams
- Maximum resolution up to D1
- Smooth dynamic video
- Onvif Profile S
- Remote PTZ Control via network
- RS-485 control and analog video output for easy adjustment
- Support area zoom, image PTZ function
- Support dome title settings and display
- Multiple white balance modes
- Support image overlapping
- Local recording
- SD card storage
- Support preset, pattern, autoscan, autopan, time tour, normal tour and power-on return
- 255 presets; accurate positioning with rotation speed up to 300°/s
- Support privacy mask and motion detection
- 2 alarm inputs and 1 relay output
- Two-way audio, G.711
- Support remote upgrade
- Standard SDK, easily to be integrated with other digital systems
- Outdoor IP66 rating, with built-in heater and air cycle system and freeze-proof

V1700N-T series PTZ domes provide the ability to view and control H.264/M-JPEG dual-stream encoded HD video, and also support three video streams. It delivers high-quality live video and image with frame rate of 30fps and resolution of D1.

The dome adopts high-performance zoom camera module with functions of auto iris, auto white balance and auto gain control, etc. The optical zoom range is 23X 28X and 36X, and it also supports 12X digital zoom. The preset speed is up to 300°/s. Accurate motor is adopted for acute response, smooth operation and less noise.

The user-friendly GUI interface is designed for easy PTZ control and convenient camera parameter settings. Thus, it makes easier to set the PTZ and perform operations with a mouse than traditional keyboard. In addition, area zoom and image PTZ are also offered.

Infinova's V1700N-T series domes also provide functions such as preset, pattern, autopan, autoscan, timed tour and normal tour, etc.

Technical specifications

Models

V1700N-23TH, V1700N-28TS, V1700N-36TH

Lens

23X, 28X, 36X

Aperture/ Focal Length	23TH: F1.6~F3.7; f=3.6~82.8mm 28TS: F1.35~F3.7; f=3.5~98mm 36TH: F1.4~F4.2; f=3.3~119mm
Angle of View	23TH: 54° (Wide) ~2.5° (Tele) 28TS: 55.8° (Wide) ~2.1° (Tele) 36TH: 60.2° (Wide) ~1.8° (Tele)
Min. Work Distance	23TH: 0.01m (Wide) ~ 1.0m (Tele) 28TS: 0.01m (Wide) ~ 1.5m (Tele) 36TH: 0.01m (Wide) ~ 1.5m (Tele)
Zoom Movement Speed	Less than 7 sec (23TH, 36TH)
Aperture Correction	Horizontal and vertical (23TH, 36TH)

Camera

Video Type	PAL/NTSC (D/N)
Scanning System	2:1 interlace scanning
Image Sensor	23TH/36TH: 1/4" progressive scanning CCD 28TS: 1/4" interlace scanning CCD
Sensitivity (23TH)	Color mode (w/ICR): 1 lux (NTSC: 1/60s, PAL: 1/50s); 0.1 lux (NTSC: 1/4s, PAL: 1/3s); 0.05 lux (NTSC: 1/2s, PAL: 1/1.5s) B/W mode: (w/o ICR): 0.01 lux (NTSC: 1/4s, PAL: 1/3s)
Sensitivity (28TS)	Color mode (w/ICR): 0.25 lux (F1.35, 50IRE) (typical); 0.16 lux (NTSC: 1/4s, PAL: 1/3s) (typical) B/W mode: (w/o ICR): 0.0015 lux (NTSC: 1/4s, PAL: 1/3s)
Sensitivity (36TH)	Color mode (w/ICR): 1.0 lux (NTSC: 1/60s, PAL: 1/50s) 0.1 lux (NTSC: 1/4s, PAL: 1/3s) B/W mode: (w/o ICR): 0.01 lux (NTSC: 1/4s, PAL: 1/3s)
S/N Ratio	>50dB
Effective Pixels (H × V)	PAL/440K: 752×582; NTSC/380K: 768×494
Horizontal Resolution	23TH: 540TVL 28TS: 550TVL 36TH: 540TVL

Sync

Sync System	Internal
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Operational

Iris	Auto, Manual, M/A
Focus	Auto, Manual, M/A
Shutter	23TH: Auto: default; Manual: PAL: 1/1.5~1/30000s; NTSC: 1/2~1/30000s 28TS: Auto: default; Manual: PAL: 1/1~1/10000s; NTSC: 1/1~1/10000s 36TH: Auto: default; Manual: PAL: 1/1.5~1/30000s; NTSC: 1/2~1/30000s
WDR	23TH: OFF/AD WDR*/AD WDR/WDR*/WDR 28TS: / 36TH: OFF/AD WDR*/AD WDR/WDR*/WDR ON/OFF(28TS, 36TH)
Stabilization	Available
DSS	23TH: AUTO/MANU/MERC/SODI 28TS: AUTO/MANU/INDOOR/OUTDOOR/ OUTDOOR AUTO/SODI/ATW 36TH: AUTO/MANU/MERC/SODI
White Balance	ON/OFF
BLC	23TH: OFF/Auto/Manual 28TS: ON/OFF 36TH: OFF/Auto/Manual
Noise Reduction	Auto/Manual
AGC	Available
Slow AE	Available
Others	Sharpness adjustable

Pan/Tilt Functions

Programmable Presets	1~255
Programmable Patterns	4
Programmable AutoPans	4
Normal Tours	6 groups (each tour can be associated with 14 actions, including Preset 1~32, Pattern 1~4, and AutoPan 1~4)
Home Return	Available
Timed Tours	Available
Auto Scan	Available
Motion Detection	4 areas
Privacy Mask	4 areas
Alarm	2 alarm inputs, 1 relay output
Area Zoom	Available
Web Server	Available
Upgrade Online	Available

Video

Compression	H.264/M-JPEG
Max. Resolution	D1 @ H.264/M-JPEG Major stream: PAL: D1 (720×576) / 4CIF (704 × 576) NTSC: D1 (720×480) / 4CIF (704 × 480) Minor stream: PAL: D1 (720×576) / 4CIF (704 × 576) / 2CIF (704 × 288) / CIF (352 × 288) / QCIF (176 × 144) NTSC: D1 (720×480) / 4CIF (704 × 480) / 2CIF (704 × 240) / CIF (352 × 240) / QCIF (176 × 120)
Optional Resolution	Variable bit rate Constant bit rate: 256Kbps ~ 10Mbps
Data Rate	Constant bit rate: 256Kbps ~ 10Mbps
Max. Frame Rate	PAL: 25fps; NTSC: 30fps
Network Delay	<300ms

RS485

Communication Protocol	INFINOVA, PELCO-P/D
Soft Address	1~255
Baud Rate	2400/4800/9600bps optional

Audio

Compression	G.711
Port	1 input, linear level, impedance: 1kΩ; 1 output, linear level, impedance: 600Ω

IP

Network Port	1 RJ-45 10M/100M self-adaptive Ethernet Port IPv4, TCP, UDP, IGMP, DHCP, FTP, SNMP(v3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP
Network Protocol	

Mechanical

Variable Speed	Pan: 0.1° ~ 250°/s; Tilt: 0.1° ~ 90°/s
Preset Speed	300°/s (max.)
Rotation Angle	Pan: 360°; Tilt: 0° ~ 90°
Preset Accuracy	±0.1°
Motor	Stepping motor

Electrical

Power Supply	24VAC/24VDC self-adaptive
Power Consumption	24VAC: 20W (indoor); 35W (outdoor); 24VDC: 20W (indoor); 33W (outdoor)
Surge Protection	Yes, ±2000V

Environmental

Operation Temperature	Indoor: -4°F ~ +122°F (-20°C ~ +50°C); Outdoor: -40°F ~ +122°F (-40°C ~ +50°C)
Storage Temperature	-4°F ~ +140°F (-20°C ~ +60°C)
Operation Humidity	0 ~ 90% RH (non-condensing)
Mounting	Bracket, Ceiling

Physical

Unit Dimensions (HxD)	Indoor bracket: 11.5" × Φ8.6" (292mm × Φ218mm); Indoor ceiling: 9.4" × Φ8.4" (240mm × Φ214mm); Outdoor bracket: 11.5" × Φ9.4" (292mm × Φ240mm); 19.09" × 11.02" × 11.81" (485mm × 280mm × 300mm)
Box Dimensions (LxWxH)	(485mm × 280mm × 300mm)
Material of Housing	Cast aluminum alloy
Material of Bubble	Clear polycarbonate

Certifications and Approval

Product Certifications	CE ¹ , FCC ² , UL ³ , IK10, ISO 9001: 2008
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Certificate No.: ¹ CTL1404150731-EC; ² CTL1404150731-FC; ³ E232008-A30-UL.

Ordering information

PTZ Dome Camera Part Numbering

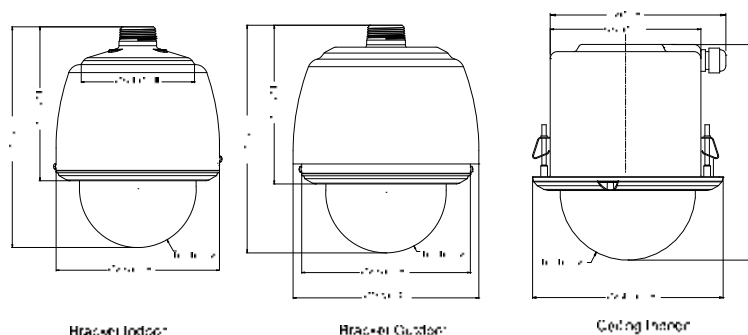
Type	Bubble	23X D/N	28X D/N	36X D/N
Indoor Ceiling Mount NTSC Camera	Vandal-Resistant Clear	V1700N-23T0N3C3H	V1700N-28T0N3C3S	V1700N-36T0N3C3H
	Vandal-Resistant Smoked	V1700N-23T0N4C3H	V1700N-28T0N4C3S	V1700N-36T0N4C3H
Indoor Ceiling Mount PAL Camera	Vandal-Resistant Clear	V1700N-23T1N3C3H	V1700N-28T1N3C3S	V1700N-36T1N3C3H
	Vandal-Resistant Smoked	V1700N-23T1N4C3H	V1700N-28T1N4C3S	V1700N-36T1N4C3H
Indoor Bracket Mount NTSC Camera	Vandal-Resistant Clear	V1700N-23T0N3B3H	V1700N-28T0N3B3S	V1700N-36T0N3B3H
	Vandal-Resistant Smoked	V1700N-23T0N4B3H	V1700N-28T0N4B3S	V1700N-36T0N4B3H
Indoor Bracket Mount PAL Camera	Vandal-Resistant Clear	V1700N-23T1N3B3H	V1700N-28T1N3B3S	V1700N-36T1N3B3H
	Vandal-Resistant Smoked	V1700N-23T1N4B3H	V1700N-28T1N4B3S	V1700N-36T1N4B3H
Outdoor Bracket Mount NTSC Camera	Vandal-Resistant Clear	V1700N-23T0U3B3H	V1700N-28T0U3B3S	V1700N-36T0U3B3H
	Vandal-Resistant Smoked	V1700N-23T0U4B3H	V1700N-28T0U4B3S	V1700N-36T0U4B3H
Outdoor Bracket Mount PAL Camera	Vandal-Resistant Clear	V1700N-23T1U3B3H	V1700N-28T1U3B3S	V1700N-36T1U3B3H
	Vandal-Resistant Smoked	V1700N-23T1U4B3H	V1700N-28T1U4B3S	V1700N-36T1U4B3H

Accessories

V1761	Wall Mount, 10 inch horizontal, 1.5 inch NPT
V1761L	Wall Mount, 17 inch horizontal, 1.5 inch NPT
V1762	Corner Mount, 10 inch horizontal, 1.5 inch NPT
V1763	Pole Mount, 10 inch horizontal, 1.5 inch NPT
V1764	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, indoor
V1764A	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, Outdoor side opening for wiring
V1764B	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, Outdoor top opening for wiring
V1765	Parapet Mount, 12 inch horizontal, vertical attachment, 1.5 inch NPT
V1765A	Parapet Mount, V1765 horizontal attachment adapter

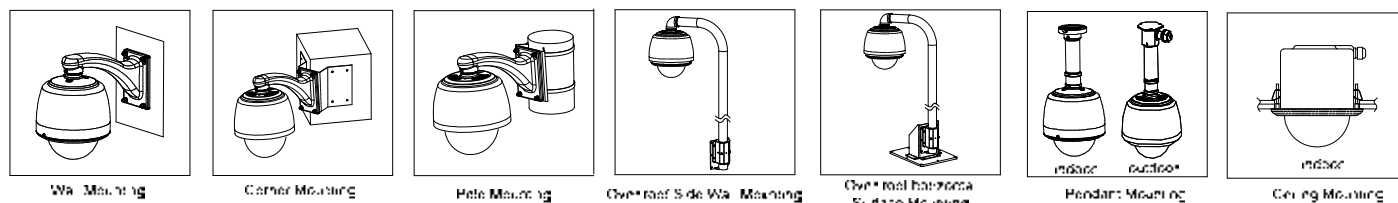
For detailed information, please refer to V1760 series indoor/outdoor dome mounts.

Dimensions

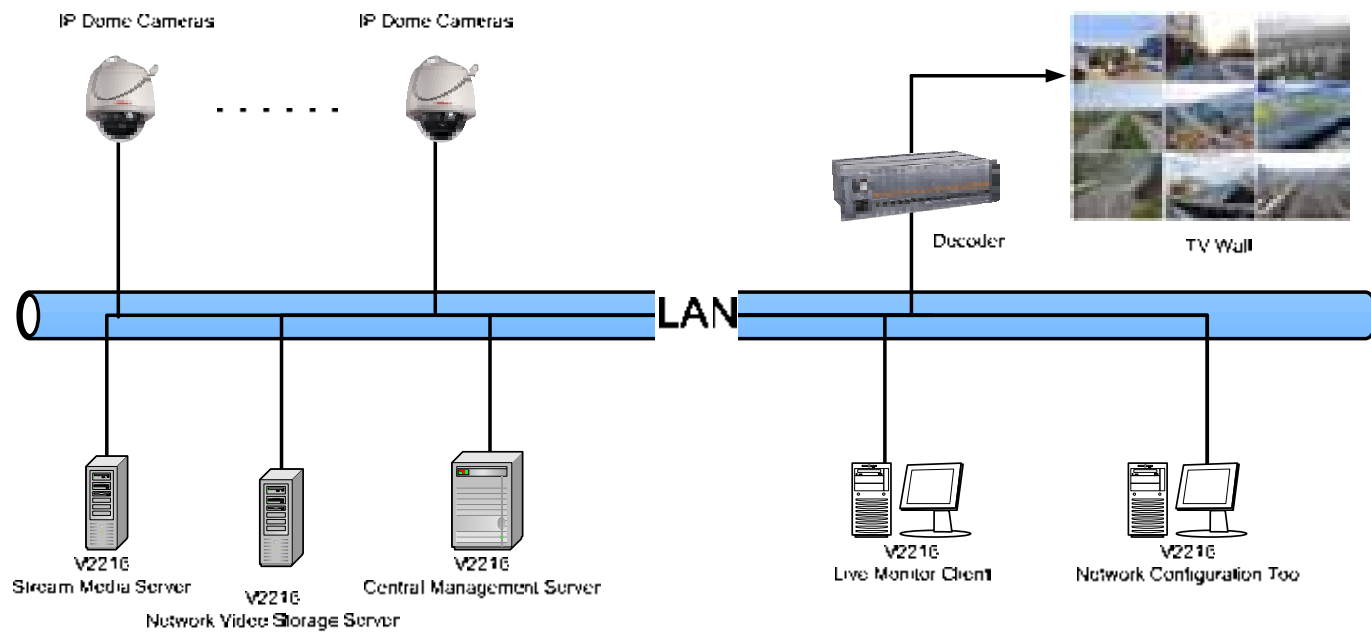


(Unit: inch, in the parentheses is mm)

Mounting



System Application



V1720N-NE2 Series

IP PTZ Indoor Recessed Ceiling and Bracket Mount Dome Camera

Infinova[®]
The Integrator's Manufacturer



- **H.264/M-JPEG dual stream encoding and three simultaneous video streams**
- **ONVIF-compliant**
- **Motion detection**
- **Multiple ways to handle alarms, such as sending an email, FTP uploading, audible warning and relay output**
- **Two-way audio and alarms**
- **Multi-user access and parameters configuration via Web Server**
- **254 Programmable presets, with the maximum speed of 400°/s, and precise positioning**
- **Advanced privacy mask function with 2 modes selectable**
- **Home return, preset linkage, pattern and auto scan**
- **Auto focus, backlight compensation, and auto gain control (AGC)**
- **High speed autopan and auto flip**

V1720N-NE2 series IP PTZ dome camera is the newly released security product of Infinova.

With the technology of network video modules and the built-in H.264/M-JPEG kernel program, it can realize the high quality video transmission by 30 frames per second. And the feature of three simultaneous streams can help to select major stream or minor stream in transmission according to the applications. The dome camera can also make intelligent monitoring plan and storage strategies via the management platform.

The built-in web server support IE 6.0 or the greater versions. OSD display and WDR are also available. And the dome cameras can be controlled and managed by Infinova V2216 series software.

The dome features the optical zoom of 23X/28X/36X and the digital zoom of 12X. The control speed various from 0.08°/s to 400°/s with low noise and smooth running.

Technical specifications

Lens

Optical Zoom	23X, 28X, 36X
Aperture/ Focal Length	23X: F1.6~F3.7; f=3.6~82.8mm 28X: F1.35~F3.7; f=3.5~98mm 36X: F1.6~F4.5; f=3.4~122.4mm
Angle of View	23X: 54° (Wide)/2.5° (Tele) 28X: 55.8° (Wide)/2.1° (Tele) 36X: 57.8° (Wide)/1.7° (Tele)
Min. Work Distance	23X: 0.01m (Wide) ~ 1.0m (Tele) 28X: 0.01m (Wide) ~ 1.5m (Tele) 36X: 0.32 m (Wide) ~ 1.5m (Tele)

Camera

Scanning System	2:1 Interlace Scanning
Image Sensor	23X: 1/4" Progressive Scan CCD 28X: 1/4" Interlace Scan CCD 36X: 1/4" Progressive Scan CCD
Sensitivity (23X)	Color Mode: 0.02 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC: 1/4s) B/W Mode: 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC: 1/4s)
Sensitivity (28X)	Color mode: 0.56 lux @ F1.35 (50IRE) (Typical); 0.09 lux (NTSC: 1/4s, PAL: 1/3s) (Typical) B/W Mode: 0.02 lux (NTSC: 1/4s, PAL: 1/3s)
Sensitivity (36X)	Color mode: 0.66 lux @F1.6 (30 IRE, PAL: 1/50s, NTSC: 1/60s); 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s) B/W mode: 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s)
S/N Ratio	>50dB

Video

Video Type	PAL/NTSC (D/N)
Analog Video Resolution	PAL/440K: 752 (H) × 582 (V) NTSC/380K: 768 (H) × 494 (V)
Horizontal Resolution	23X: 540TVL 28X: 550TVL 36X: 550TVL
Video Compression	H.264/M-JPEG
Maximum Resolution	4CIF @ H.264/M-JPEG
Optional Resolution (Major Stream)	PAL: 4CIF(704×576) / 2CIF(704×288) / CIF(352×288) / QCIF(176×144); NTSC: 4CIF(704×480) / 2CIF(704×240) / CIF(352×240) / QCIF(176×120)
Optional Resolution (Minor Stream)	PAL: CIF(352×288)/QCIF(176×144); NTSC: CIF(352×240)/QCIF(176×120)
Video Output	1.0±0.2Vp-p

Audio (Optional)

Audio	G.711
Compression	
Audio port	1 input/1 output
IP	
Communication Protocol	INFINOVA, PELCO-P/D (self-adaptive)
Number of Addresses	1~254
Baud Rate	2400/4800/9600bps optional
Bit Rate	Variable bit rate; Constant bit rate: 256Kbps ~ 3Mbps
Maximum Frame Rate	PAL: 25fps; NTSC: 30fps
Network Port	1 RJ45 10M/100M self-adaptive Ethernet port
Network Protocols	TCP/IP, HTTP, ICMP, IGMP, UDP, SMTP, RTP, RTSP, SNMP ARP etc.
Operational	
Manual Pan Speed	0.08°~200°/s
Manual Tilt Speed	0.2°~100°/s
Preset Speed	400°/s maximum
Pan Travel	360° continuous
Tilt Travel	-5°~90°
Preset Accuracy	±0.1°
Presets	254
Patterns	4
Autopans	4
Programmable Areas	16
Video Blanking Sectors	16
Spherical Privacy Zones	4 (23X) 24 (28X/36X)
Norm Tours	6
Alarm (Optional)	2 alarm inputs, 2 relay outputs
Zoom Window	Yes (PELCO-D)
Motion Detection	Yes
Home Return	Yes
Auto Scan	Yes
Image Mirror	Yes
WDR	23X: OFF/WDR/AD WDR/WDR*/AD WDR* 28X: / 36X: OFF/DVER COMP/EXP RATIONAUTO
Stabilization	Yes (28X/36X)
FNR	23X: OFF/AUTO/MANU 28X: ON/OFF 36X: ON/OFF
Digital Zoom	1~12X adjustable

Technical specifications (continued)

DSS	Yes
Focus	AUTO / MANU / M/A
White Balance	23X: AUTO/MANU/MERC/SODI 28X: AUTO/MANU/INDOOR/OUTDOOR/OUTDOOR AUTO/SODI/ATW 36X: AUTO/MANU/INDOOR/OUTDOOR/OUTDOOR AUTO/SODI/ATW
Backlight Compensation	ON/OFF
Shutter Speed	Auto: Default Set; Manual: 23X: PAL: 1/1.5~1/30000s, NTSC: 1/2~1/30000s; 28X: PAL: 1/1~1/10000s, NTSC: 1/1~1/10000s; 36X: PAL: 1/1~1/10000s, NTSC: 1/1~1/10000s
Iris	M/A / AUTO / MANU
Mechanical	
Product Dimension (H×D)	Bracket: 11.5" × Φ8.6" (292mm × Φ218mm); Ceiling: 9.4" × Φ8.4" (240mm × Φ214mm)
Package Dimension (L×W×H)	19.09" × 11.02" × 11.81" (485mm × 280mm × 300mm)
Product Weight	Bracket: 7.1lbs (3.2kg), Ceiling: 6.2lbs (2.8kg)
Shipping Weight	Bracket: 10.6lbs (4.8kg); Ceiling: 9.5lbs (4.3kg)

Motor	Stepping motor
Mounting	Bracket, Ceiling
Housing Material	Cast Aluminum
Sync	
Sync System	Internal/Line-locked
Electrical	
Power Supply	12VDC, 24VAC
Power Consumption	12VDC: 21W; 24VAC: 28W
Environmental	
Operating Temperature	14°F ~ 140°F (-10°C ~ +60°C)
Storage Temperature	-4°F ~ 140°F (-20°C ~ +60°C)
Operating Humidity	0~90%RH (non-condensing)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part15 Subpart B ² ; ISO 9001:2008; IEC 61000; UL

Certificate No.: ¹ BCT12HC-1420E ; ² BCT12HC-1421E.

Ordering information

PTZ Dome Camera Part Numbering

Type	Bubble	23X D/N	28X D/N	36X D/N
Recessed Ceiling Mount NTSC Camera 24VAC	Vandal-Resistant Clear	V1727N-N0C3C6E2	V1728N-N0C3C6E2	V1723N-N0C3C6E2
	Vandal-Resistant Smoked	V1727N-N0S3C6E2	V1728N-N0S3C6E2	V1723N-N0S3C6E2
Recessed Ceiling Mount PAL Camera 24VAC	Vandal-Resistant Clear	V1727N-N1C3C6E2	V1728N-N1C3C6E2	V1723N-N1C3C6E2
	Vandal-Resistant Smoked	V1727N-N1S3C6E2	V1728N-N1S3C6E2	V1723N-N1S3C6E2
Pendant Mount NTSC Camera 24VAC	Vandal-Resistant Clear	V1727N-N0C3B6E2	V1728N-N0C3B6E2	V1723N-N0C3B6E2
	Vandal-Resistant Smoked	V1727N-N0S3B6E2	V1728N-N0S3B6E2	V1723N-N0S3B6E2
Pendant Mount PAL Camera 24VAC	Vandal-Resistant Clear	V1727N-N1C3B6E2	V1728N-N1C3B6E2	V1723N-N1C3B6E2
	Vandal-Resistant Smoked	V1727N-N1S3B6E2	V1728N-N1S3B6E2	V1723N-N1S3B6E2

Part Number Extensions for Power Input Selection

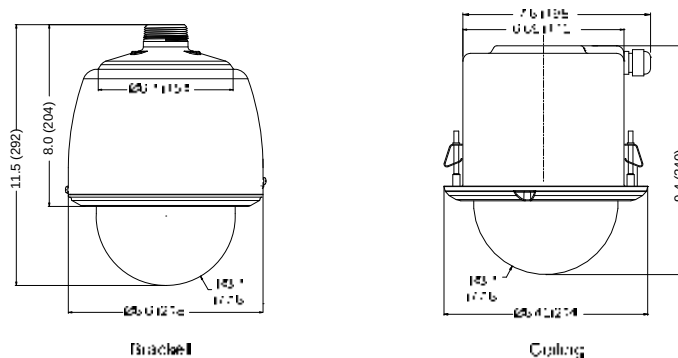
12VDC	EX: 12VDC Input	24VAC	EX: 24VAC Input
5	V1727N-N0C3B5E2	6	V1727N-N0C3B6E2

Accessories

V1761	Wall Mount, 10 inch horizontal, 1.5 inch NPT
V1761L	Wall Mount, 17 inch horizontal, 1.5 inch NPT
V1762	Corner Mount, 10 inch horizontal, 1.5 inch NPT
V1763	Pole Mount, 10 inch horizontal, 1.5 inch NPT
V1764	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, indoor

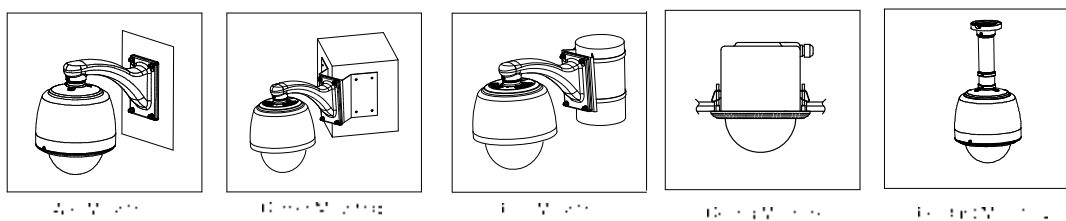
For detailed information, please refer to V1760 series indoor/outdoor dome mounts.

Dimensions

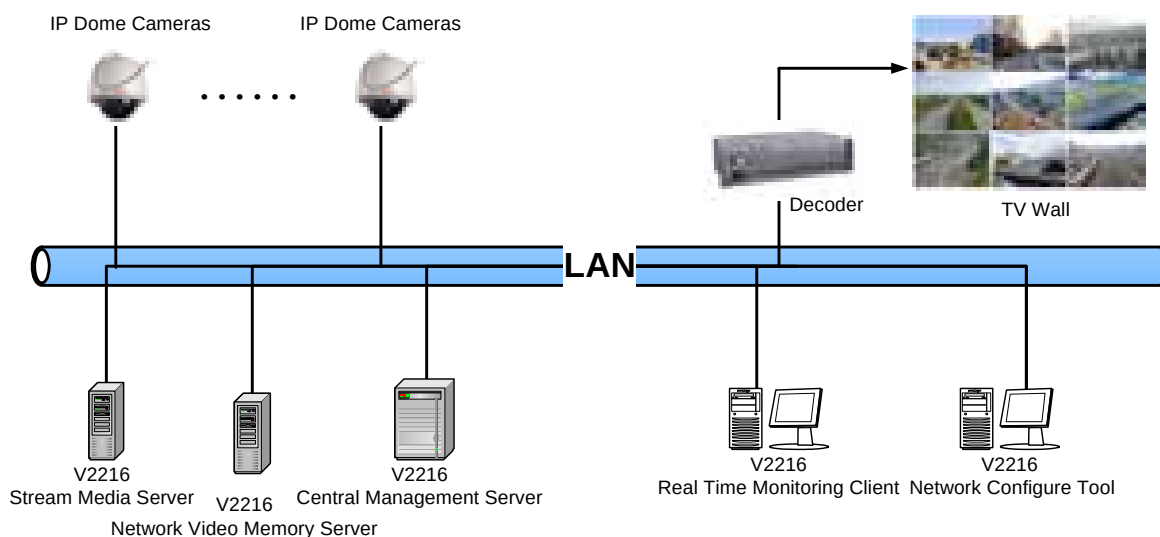


(Unit: inch, in the parentheses is mm)

Mounting



System Application



V1740N-NE2 Series

IP PTZ Outdoor Bracket Mount Dome Camera

Infinova[®]
The Integrator's Manufacturer



- **H.264/M-JPEG dual stream encoding and three simultaneous video streams**
- **ONVIF-compliant**
- **Motion detection**
- **Multiple ways to handle alarms, such as sending an email, FTP uploading, audible warning and relay output**
- **Two-way audio and alarms**
- **Multi-user access and parameters configuration via Web Server**
- **254 Programmable presets, with the maximum speed of 400°/s, and precise positioning**
- **Advanced privacy mask function with 2 modes selectable**
- **Home return, preset linkage, pattern and auto scan**
- **Auto focus, backlight compensation, and auto gain control (AGC)**
- **High speed autopan and auto flip**
- **IP 66 rating, with built-in heater and air cycle system, freeze proof**

V1740N-NE2 series IP PTZ dome camera is the newly released security product of Infinova.

With the technology of network video modules and the built-in H.264/M-JPEG kernel program, it can realize the high quality video transmission by 30 frames per second. And the feature of three simultaneous streams can help to select major stream or minor stream in transmission according to the applications. The dome camera can also make intelligent monitoring plan and storage strategies via the management platform.

The built-in web server support IE 6.0 or the greater versions. OSD display and WDR are also available. And the dome cameras can be controlled and managed by Infinova V2216 series software.

The dome features the optical zoom of 23X/28X/36X and the digital zoom of 12X. The control speed various from 0.08°/s to 400°/s with low noise and smooth running.

Technical specifications

Lens

Optical Zoom	23X, 28X, 36X
Aperture/ Focal Length	23X: F1.6~F3.7; f=3.6~82.8mm 28X: F1.35~F3.7; f=3.5~98mm 36X: F1.6~F4.5; f=3.4~122.4mm
Angle of View	23X: 54° (Wide)/2.5° (Tele) 28X: 55.8° (Wide)/2.1° (Tele) 36X: 57.8° (Wide)/1.7° (Tele)
Min. Work Distance	23X: 0.01m (Wide) ~ 1.0m (Tele) 28X: 0.01m (Wide) ~ 1.5m (Tele) 36X: 0.32 m (Wide) ~ 1.5m (Tele)

Camera

Scanning System	2:1 Interlace Scanning
Image Sensor	23X: 1/4" Progressive Scan CCD 28X: 1/4" Interlace Scan CCD 36X: 1/4" Progressive Scan CCD
Sensitivity (23X)	Color Mode: 0.02 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC: 1/4s) B/W Mode: 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC: 1/4s)
Sensitivity (28X)	Color mode: 0.56 lux @ F1.35 (50IRE) (Typical); 0.09 lux (NTSC: 1/4s, PAL: 1/3s) (Typical) B/W Mode: 0.02 lux (NTSC: 1/4s, PAL: 1/3s)
Sensitivity (36X)	Color mode: 0.66 lux @F1.6 (30 IRE, PAL: 1/50s, NTSC: 1/60s); 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s) B/W mode: 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s)
S/N Ratio	>50dB

Video

Video Type	PAL/NTSC (D/N)
Analog Video Resolution	PAL/440K: 752 (H) × 582 (V) NTSC/380K: 768 (H) × 494 (V)
Horizontal Resolution	23X: 540TVL 28X: 550TVL 36X: 550TVL
Video Compression	H.264/M-JPEG
Maximum Resolution	4CIF @ H.264/M-JPEG
Optional Resolution (Major Stream)	Major stream: PAL: 4CIF(704×576) / 2CIF(704×288) / CIF(352×288) / QCIF(176×144); NTSC: 4CIF(704×480) / 2CIF(704×240) / CIF(352×240) / QCIF(176×120)
Optional Resolution (Minor Stream)	PAL: CIF(352×288)/QCIF(176×144); NTSC: CIF(352×240)/QCIF(176×120)
Video Output	1.0±0.2Vp-p

Audio (Optional)

Audio Compression	G.711
Audio port	1 input/1 output

IP

Communication Protocol	INFINOVA, PELCO-P/D (self-adaptive)
Number of Addresses	1~254

Baud Rate	2400/4800/9600bps optional
Bit Rate	Variable bit rate; Constant bit rate: 256Kbps ~ 3Mbps
Maximum Frame Rate	PAL: 25fps; NTSC: 30fps
Network Port	1 RJ45 10M/100M self-adaptive Ethernet port
Network Protocols	TCP/IP, HTTP, ICMP, IGMP, UDP, SMTP, RTP, RTSP, SNMP ARP etc.
Operational	
Manual Pan Speed	0.08°~200°/s
Manual Tilt Speed	0.2°~100°/s
Preset Speed	400°/s maximum
Pan Travel	360° continuous
Tilt Travel	-5°~90°
Preset Accuracy	±0.1°
Presets	254
Patterns	4
Autopans	4
Programmable Areas	16
Video Blanking Sectors	16
Spherical Privacy Zones	4 (23X) 24 (28X/36X)
Norm Tours	6
Alarm (Optional)	2 alarm inputs, 2 relay outputs
Zoom Window	Yes (PELCO-D)
Motion Detection	Yes
Home Return	Yes
Auto Scan	Yes
Image Mirror	Yes
WDR	23X: OFF/WDR/AD WDR/WDR*/AD WDR* 28X: / 36X: OFF/DVER COMP/EXP RATIONAUTO
Stabilization	Yes (28X/36X)
FNR	23X: OFF/AUTO/MANU 28X: ON/OFF 36X: ON/OFF
Digital Zoom	1~12X adjustable
DSS	Yes
Focus	AUTO / MANU / M/A
White Balance	23X: AUTO/MANU/MERC/SODI 28X: AUTO/MANU/INDOOR/OUTDOOR/OUTDOOR AUTO/SODI/ATW 36X: AUTO/MANU/INDOOR/OUTDOOR/OUTDOOR AUTO/SODI/ATW
Backlight Compensation	ON/OFF
Shutter Speed	Auto: Default Set; Manual: 23X: PAL: 1/1.5~1/30000s, NTSC: 1/2~1/30000s; 28X: PAL: 1/1~1/10000s, NTSC: 1/1~1/10000s; 36X: PAL: 1/1~1/10000s, NTSC: 1/1~1/10000s
Iris	M/A / AUTO / MANU

Technical specifications (continued)

Mechanical

Product Dimension (HxD)	11.5" × Φ9.4" (292mm × Φ240mm)
Package Dimension (L×W×H)	19.09" × 11.02" × 11.81" (485mm × 280mm × 300mm)
Product Weight	8.4lbs (3.8kg)
Shipping Weight	11.9lbs (5.4kg)
Motor	Stepping motor
Mounting	Bracket
Housing Material	Cast Aluminum

Sync

Sync System	Internal/Line-locked
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Electrical

Power Supply	12VDC, 24VAC
Power Consumption	12VDC: 27W (with heater); 24VAC: 43W (with heater)

Environmental

Operating Temperature	-40°F ~ 140°F (-40°C ~ +60°C)
Storage Temperature	-4°F ~ 140°F (-20°C ~ +60°C)
Operating Humidity	0~90%RH (non-condensing)
Rating	IP66

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part15 Subpart B ² ; ISO 9001:2008; IEC 61000; UL
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Certificate No.: ¹ BCT12HC-1420E ; ² BCT12HC-1421E.

Ordering information

PTZ Dome Camera Part Numbering

Type	Bubble	23X D/N	28X D/N	36X D/N
Pendant Mount	Vandal-Resistant Clear	V1747N-N0C3B6E2	V1748N-N0C3B6E2	V1743N-N0C3B6E2
NTSC Camera 24VAC	Vandal-Resistant Smoked	V1747N-N0S3B6E2	V1748N-N0S3B6E2	V1743N-N0S3B6E2
Pendant Mount	Vandal-Resistant Clear	V1747N-N1C3B6E2	V1748N-N1C3B6E2	V1743N-N1C3B6E2
PAL Camera 24VAC	Vandal-Resistant Smoked	V1747N-N1S3B6E2	V1748N-N1S3B6E2	V1743N-N1S3B6E2

Part Number Extensions for Power Input Selection

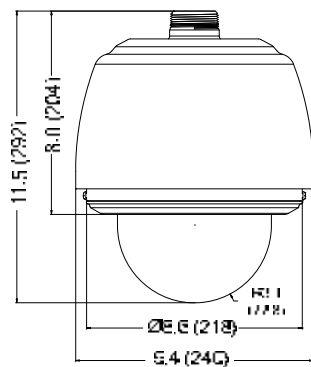
12VDC	EX: 12VDC Input	24VAC	EX: 24VAC Input
5	V1747N-N0C3B5E2	6	V1747N-N0C3B6E2

Accessories

V1761	Wall Mount, 10 inch horizontal, 1.5 inch NPT
V1761L	Wall Mount, 17 inch horizontal, 1.5 inch NPT
V1762	Corner Mount, 10 inch horizontal, 1.5 inch NPT
V1763	Pole Mount, 10 inch horizontal, 1.5 inch NPT
V1764A	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, Outdoor side opening for wiring
V1764B	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, Outdoor top opening for wiring
V1765	Parapet Mount, 12 inch horizontal, vertical attachment, 1.5 inch NPT
V1765A	Parapet Mount, V1765 horizontal attachment adapter

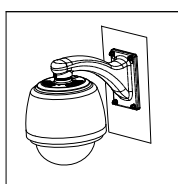
For detailed information, please refer to V1760 series indoor/outdoor dome mounts.

Dimensions

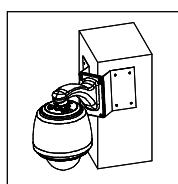


(Unit: inch, in the parentheses is mm)

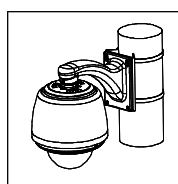
Mounting



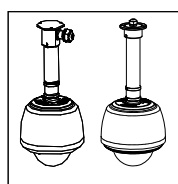
Wall Mounting



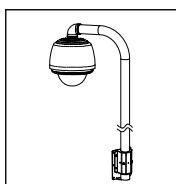
Corner Mounting



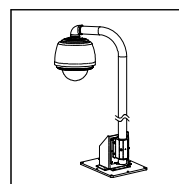
Pole Mounting



Pendant Mounting

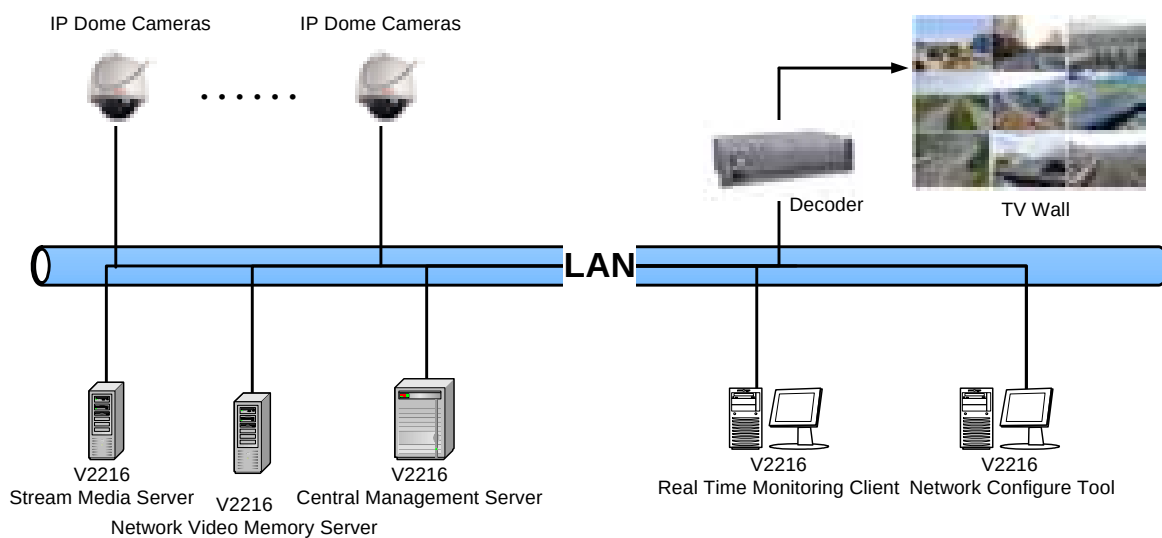


Over roof Side Wall Mounting



Over roof Horizontal Surface Mounting

System Application



V1772N-T Series

HD 1MP and 2MP IP PTZ Recessed Ceiling and Bracket Mount Dome Camera

Infinova[®]
The Integrator's Manufacturer



- Built-in 18X, 20X and 30X HD integrated camera modules
- Maximum resolution up to 1920×1080 @ 30fps or 1280×720 @ 30fps
- H.264 high profile & M-JPEG dual-stream encoding, three simultaneous video streams
- Two-way audio, G.711
- Remote PTZ Control via network
- Area zoom, image PTZ function
- Dome title settings and display
- Support image overlapping
- Multiple white balance modes
- Defog supported
- Preset, pattern, autoscan, autopan, time tour, normal tour and power-on return
- Privacy mask and motion detection
- 2 alarm inputs and 1 relay output
- Local recording
- SD card storage
- Compatible with digital video surveillance software like Infinova V2216 and Command
- Standard SDK, easily to be integrated with other digital systems
- Onvif Profile S
- RS-485 control and analog video output for easy adjustment
- Outdoor IP66 rating, with built-in heater and air cycle system and freeze-proof
- Remote upgrade via network
- Rugged design (IK10)

V1772N-T series HD 1MP and 2MP IP PTZ domes provide users a high-definition, high frame rate and high SNR real-time images acquisition system. V1772N-T series PTZ domes provide the ability to view and control H.264 High profile/M-JPEG dual-stream encoded HD video, and also support three video streams. The maximum resolution can be 1920×1080 @ 30fps or 1280×720 @ 30fps.

The dome support built-in 18X, 20X and 30X HD integrated camera modules. The user-friendly GUI interface is designed for easy PTZ control and convenient camera parameter settings. Thus, it makes easier to set the PTZ and perform operations with a mouse than traditional keyboard. In addition, area zoom and image PTZ functions are also offered.

V1772N-T series domes also provide functions such as preset, pattern, autoscan and autopan etc.

Technical specifications

Models

V1772N-18TH, V1772N-20TH, V1772N-20TL,
V1772N-20TT, V1772N-30TH, V1772N-30TS

Lens

Optical Zoom	18X, 20X, 30X
Aperture/ Focal Length	18TH: F1.6~F2.8, f=4.7~84.6mm 20TH: F1.6~F3.5, f=4.7~94mm 20TL: F1.6~F3.5, f=4.7~94mm 20TT: F1.6~F3.5, f=4.7~94mm 30TH: F1.4~F4.6, f=4.4~132.0mm 30TS: F1.6~F4.7, f= 4.3~129mm
Angle of View	18TH: 59.7° (Wide) ~ 3.6° (Tele) 20TH: 55.2° (Wide) ~ 2.9° (Tele) 20TL: 59.5° (Wide) ~ 3.2° (Tele) 20TT: 59.6° (Wide) ~ 3.2° (Tele) 30TH: 62.9° (Wide) ~ 2.2° (Tele) 30TS: 63.7° (Wide) ~ 2.3° (Tele)
Min. Work Distance	18TH: 0.01m (Wide) ~ 1.0m (Tele) 20TH: 0.01m (Wide) ~ 1.0m (Tele) 20TL: 0.01m (Wide) ~ 1.0m (Tele) 20TT: 0.01m (Wide) ~ 1.0m (Tele) 30TH: 0.01m (Wide) ~ 1.5m (Tele) 30TS: 0.01m (Wide) ~ 1.2m (Tele)

Camera

Scanning System	Progressive scanning
Image Sensor	18TH: 1/3" CCD 20TH: 1/2.8" CMOS 20TL: 1/2.8" CMOS 20TT: 1/2.8" CMOS 30TH: 1/3" CCD 30TS: 1/2.8" CMOS
Sensitivity (18TH)	Color mode: 0.8 lux (1/30s, F1.6, 50%, AGC-Gain: 34dB) 0.1 lux (1/4s, F1.6, 50%, AGC-Gain: 34dB) B/W mode: 0.01 lux (1/4s, F1.6, 50%, AGC-Gain: 34dB)
Sensitivity (20TH)	Color mode: 0.8 lux @ F1.6 (50IRE) B/W mode: 0.02 lux @ F1.6 (50IRE)
Sensitivity (20TL)	Color mode: 0.04 lux @ F1.6 (AGC ON) B/W mode: 0.005 lux @ F1.6 (AGC ON)
Sensitivity (20TT)	Color mode: 0.4 lux @ F1.6(1/30s, 350mV equiv., AGC-Gain: 48dB) 0.1 lux @ F1.6(1/8s, 350mV equiv., AGC-Gain: 48dB) B/W mode: 0.01 lux @ F1.6(1/8s, 350mV equiv., AGC-Gain: 48dB)
Sensitivity (30TH)	Color mode: 0.5 lux (1/30s, F1.4 (wide), 50%, AGC-Gain: 35dB) 0.1 lux (1/4s, F1.4 (wide), 50%, AGC-Gain: 35dB) B/W mode: 0.005 lux (1/4s, F1.4 (wide), 50%, AGC-Gain: 35dB)
Sensitivity (30TS)	Color mode: 0.35 lux (1/30 sec, 50%,(typical value) high sens mode ON) 1.4 lux (1/30 sec, 50%, high sens mode OFF) 0.05 lux (1/4 sec, 1/3 sec, 50%, high sens mode ON) 0.19 lux (1/4 sec, 1/3 sec, 50%, high sens mode OFF) B/W mode: 0.013 lux (1/30 sec, 50%, high sens mode ON) 0.05 lux (1/30 sec, 50%, high sens mode OFF) 0.002 lux (1/4 sec, 1/3 sec, 30%,high sens mode ON)
S/N Ratio	>50dB

Video

Effective Resolution	1.0 Mpx. (18TH, 30TH) 2.0 Mpx. (20TH, 20TL, 20TT, 30TS)
Video Compression	H.264 high profile/M-JPEG
Maximum Resolution	1280×720 @ 30fps (18TH, 30TH) 1920×1080 @ 30fps (20TH, 20TL, 20TT, 30TS)

Output Bit Rate	Variable bit rate; Constant bit rate: 256Kbps~10000Kbps
Network Delay	<300ms
Audio	
Audio Compression	G.711
Audio port	1 input, linear level, impedance: 1kΩ; 1 output, linear level, impedance: 600Ω
Storage	
Built-in Storage	With an embedded SD card slot, it is recommended to use an SD card up to 32G
IP	
Network Port	1*10M/100M Ethernet port, self-adaptive, RJ-45
Network Protocol	IPv4, TCP, UDP, IGMP, DHCP, FTP, SNMP(v3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TSL, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP
Operational	
Manual Pan Speed	0.1° ~ 250°/s
Manual Tilt Speed	0.1° ~ 90°/s
Preset Speed	Max. 300°/s
Pan Travel	360° continuous
Tilt Travel	0°~90°
Preset Accuracy	±0.1°
Presets	255
Patterns	4
Autopans	4
Tours	6 (each tour can be associated with 14 acts, including preset 1~32, pattern 1~4, autopan 1~4)
Home Return	Yes
Time Tour	Yes
Autoscan	Yes
Motion Detection	Yes, 4 areas
Alarm	2 alarm inputs, 1 relay output
Area Zoom	Yes
Web Server	Yes
Remote Upgrade	Yes
Iris	Auto, Manu, M/A
Focus	Auto, Manu, M/A
Shutter	18TH: Auto (1/30s~1/10000s, adjustable) 20TH: Auto (1/1.5s~1/30000s, adjustable) 20TL: Auto (1/25 ~ 1/10000s, adjustable) 20TT: Auto (1/1 ~ 1/30000s, adjustable) 30TH: Auto (1/4s~1/10000s, adjustable) 30TS: Auto (1/1s~1/10000s, adjustable)
Digital Slow Shutter	Yes (20TH, 20TL, 20TT, 30TH, 30TS)
Image Mirror	Off/H-mirror (18TH) Off/H-mirror/V-mirror/HV-mirror (20TH, 20TL, 20TT, 30TH, 30TS)
Image Freeze	Yes (20TH, 20TT, 30TH, 30TS)
FNR	18TH: / 20TH: Off/Manu/Auto (1~3 levels adjustable) 20TL: OFF/(1~7 levels adjustable) 20TT: Off/Manu/Auto (1~3 levels adjustable) 30TH: Off/Manu/Auto (1~3 levels adjustable) 30TS: Off/1~5 levels adjustable
White Balance	AUTO/MANU/MERC/SODI (18TH, 20TH, 20TT, 30TH); AUTO/MANU/INDOOR/OUTDOOR/ATW/OUTDOOR AUTO/SODI (20TL, 30TS)
Auto Gain Control	Yes
WDR	18TH: On/Off 20TH: Off/WDR/AD WDR/ WDR*/AD WDR* 20TL: On/Off 20TT: WDR*/AD WDR* 30TH: WDR*/AD WDR* 30TS: On/Off/Auto

Technical specifications (continued)

Stabilization	Yes (30TH)
Backlight Compensation	On/Off
Others	18TH: Sharpness adjustable; 20TH: Sharpness adjustable, slow AE; 20TL: Sharpness, contrast, brightness, saturation adjustable, slow AE, chroma suppress, edge color suppress; 20TT: Sharpness adjustable, slow AE, night vision 30TH: Sharpness adjustable, slow AE; 30TS: Sharpness adjustable, slow AE, high sens mode
Mechanical	
Product Dimension (H×D)	Indoor bracket: 11.5" × Φ8.6" (292mm × Φ218mm); Indoor ceiling: 9.4" × Φ8.4" (240mm × Φ214mm) Outdoor bracket: 11.5" × Φ9.4" (292mm × Φ240mm)
Package Dimension (L×W×H)	19.09" × 11.02" × 11.81" (485mm × 280mm × 300mm)
Motor	Stepping motor
Mounting	Bracket, Ceiling
Housing Material	Cast Aluminum

Net Weight	Indoor bracket: 8.27lbs (3.75kg) Outdoor bracket: 9.83lbs (4.46kg) Indoor ceiling: 6.79lbs (3.08kg)
Gross Weight	Indoor bracket: 11.35lbs (5.15kg) Outdoor bracket: 12.96lbs (5.88kg) Indoor ceiling: 9.88lbs (4.48kg)
Sync	
Sync System	Internal
Electrical	
Power Supply	24VAC/24VDC self-adaptive
Power Consumption	24VAC: 20W (indoor); 35W (outdoor) 24VDC: 20W (indoor); 33W (outdoor)
Surge Protection	Yes, ±2000V
Environmental	
Operating Temperature	Indoor: -4°F ~ +122°F (-20°C ~ +50°C); Outdoor: -40°F ~ +122°F (-40°C ~ +50°C)
Operating Humidity	0 ~ 90%RH (non-condensing)
Rating	IP66
Impact Resistance	IK10
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3; FCC: Part15 Subpart B; ISO 9001:2008; UL ¹ ; IK10: IEC62262

Certificate No.: ¹ 20131205-E232008.

Ordering information

PTZ Dome Camera Part Numbering

Type	Bubble	V1772N-18TH	V1772N-20TH	V1772N-30TH	V1772N-30TS
Indoor Pendant Mount Camera	Vandal-Resistant Clear	V1772N-18T0N3B3H	V1772N-20T2N3B3H	V1772N-30T0N3B3H	V1772N-30T2N3B3S
	Vandal-Resistant Smoked	V1772N-18T0N4B3H	V1772N-20T2N4B3H	V1772N-30T0N4B3H	V1772N-30T2N4B3S
Outdoor Pendant Mount Camera	Vandal-Resistant Clear	V1772N-18T0U3B3H	V1772N-20T2U3B3H	V1772N-30T0U3B3H	V1772N-30T2U3B3S
	Vandal-Resistant Smoked	V1772N-18T0U4B3H	V1772N-20T2U4B3H	V1772N-30T0U4B3H	V1772N-30T2U4B3S
Indoor Recessed Ceiling Mount Camera	Vandal-Resistant Clear	V1772N-18T0N3C3H	V1772N-20T2N3C3H	V1772N-30T0N3C3H	V1772N-30T2N3C3S
	Vandal-Resistant Smoked	V1772N-18T0N4C3H	V1772N-20T2N4C3H	V1772N-30T0N4C3H	V1772N-30T2N4C3S

Type	Bubble	V1772N-20TL	V1772N-20TT
Indoor Pendant Mount Camera	Vandal-Resistant Clear	V1772N-20T2N3B3L	V1772N-20T2N3B3T
	Vandal-Resistant Smoked	V1772N-20T2N4B3L	V1772N-20T2N4B3T
Outdoor Pendant Mount Camera	Vandal-Resistant Clear	V1772N-20T2U3B3L	V1772N-20T2U3B3T
	Vandal-Resistant Smoked	V1772N-20T2U4B3L	V1772N-20T2U4B3T
Indoor Recessed Ceiling Mount Camera	Vandal-Resistant Clear	V1772N-20T2N3C3L	V1772N-20T2N3C3T
	Vandal-Resistant Smoked	V1772N-20T2N4C3L	V1772N-20T2N4C3T

Part Number Extensions for Power Input Selection

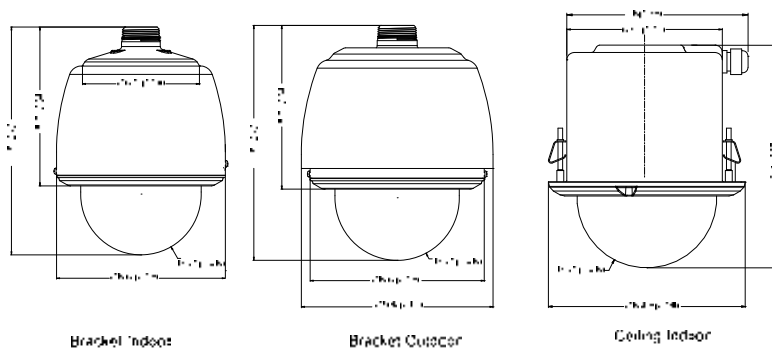
24 VAC / 24 VDC	EX: 24 VAC / 24 VDC Input	PoE	EX: PoE Input
3	V1772N-30T2N3B3S	0	V1772N-30T2N3B0S

Accessories

V1761	Wall Mount, 10 inch horizontal, 1.5 inch NPT
V1761L	Wall Mount, 17 inch horizontal, 1.5 inch NPT
V1762	Corner Mount, 10 inch horizontal, 1.5 inch NPT
V1763	Pole Mount, 10 inch horizontal, 1.5 inch NPT
V1764	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, indoor
V1764A	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, Outdoor side opening for wiring
V1764B	Pendent Mount, 15 inch long vertical, 1.5 inch NPT, Outdoor top opening for wiring
V1765	Parapet Mount, 12 inch horizontal, vertical attachment, 1.5 inch NPT
V1765A	Parapet Mount, V1765 horizontal attachment adapter

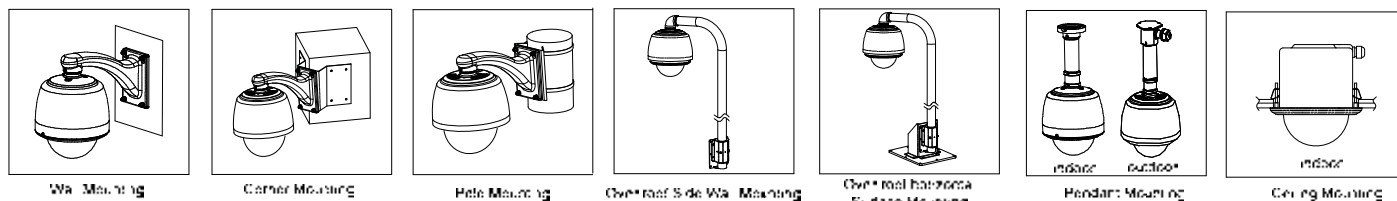
Dimensions

For detailed information, please refer to V1760 series indoor/outdoor dome mounts.



(Unit: inch, in the parentheses is mm)

Mounting



V1492N-N Series

Integrated High-speed IP PTZ Camera System

Infinova[®]
The Integrator's Manufacturer



- **Three simultaneous video streams: Dual H.264 & Scalable M-JPEG**
- **Up to 4CIF@ H.264/M-JPEG with 30fps@NTSC/25fps@PAL**
- **ONVIF-compliant**
- **Motion detection**
- **Supports multiple ways to handle alarms, such as sending an email, and FTP upload**
- **Multiple users access and configure parameters via Web Server**
- **Remote PTZ control**
- **Up to 254 Presets with labels, 6 programmable Tours, 4 programmable Patterns, 4 Auto-Pan, 1 Auto-Scan**
- **16 programmable zones with 16 characters each**
- **24 advanced spherical privacy zones**
- **16 video blanking sectors**
- **Wide dynamic range**
- **Window wiper, built-in heater, window defroster/defogger included**
- **Operational in 90 mph wind conditions; withstanding wind velocity of up to 130 mph**
- **IP66 environment rating**

V1492N-N Series Integrated High-speed IP PTZ Camera System integrates the decoder, pan/tilt and housing together, as well as an easy-to-install system; it also includes an Integrated Optics Package (IOP). For a wide range of applications, the V1492N-N features a choice of many of mainstream IOP cameras.

A powder-coated, aluminum construction makes the V1492N-N ideal for either indoor or outdoor applications. The system has an absolute operating temperature range of -40°F ~ 140°F (-40°C ~ 60°C). The V1492N-N series are available with an input voltage of 24VAC or with a selectable power source of 24VDC.

With 10/100M Base-T self-adaptive network functions, the V1492N-N series can output H.264/M-JPEG format video and support three video streams. Strong capability of network remote control not only allows the relative software to search network video, but also sets the IP address, subnet mask & gateway of the video server via Internet Explorer, as well as video encoding, e.g., pre-define encoding parameters, data transmission rate, image quality, etc.

Technical specifications

Lens

Optic Zoom	36X
Digital Zoom	1~12X Adjustable
Aperture/ Focal Length	F1.6 ~ F 4.5; f=3.4~122.4mm
Angle of View	57.8° (Wide) / 1.7° (Tele)
Min. Work Distance	0.32m (Wide) ~ 1.5m (Tele)

Camera

Scanning System	2:1 Interlace scanning
Image Sensor	1/4" Progressive scanning CCD
Video Type	PAL/NTSC (D/N)
Sensitivity	Color mode: 0.66 lux @F1.6 (30 IRE, PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s) B/W mode: 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s)
S/N Ratio	>50dB
Sync System	Internal/External
Focus	Auto / Manual / M/A
Iris	Auto / Manual / M/A
Shutter Speed	Auto: Default Manual: PAL: 1/1~1/10000s; NTSC: 1/1~1/10000s
DSS	Available

Image

Analog Video Resolution	PAL/440K: 752(H) x 582 (V) NTSC/380K: 768 (H) x 494 (V)
Frame Rate (max.)	NTSC: 30fps; PAL: 25fps
Maximum Resolution	4CIF @H.264/M-JPEG
Horizontal Resolution	550TVL
Optional Resolution	Major stream: NTSC: 4CIF(704×480)/2CIF(704×240)/ CIF(352×240)/QCIF(176×120); PAL: 4CIF(704×576)/2CIF(704×288)/ CIF(352×288)/QCIF(176×144) Minor stream: NTSC: CIF(352×240)/QCIF(176×120); PAL: CIF(352×288)/QCIF(176×144)
BLC	ON/OFF
WDR	ON/OFF
White Balance	AUTO/MANU/ATW/INDOOR/OUTDOOR

Operational

Decoder	INFINOVA, PELCO-P/D
Programmable Presets	254
Programmable Tours	6
Programmable Patterns	4

Programmable AutoPans	4
Spherical Privacy Zones	24
Video Blanking Sectors	16
Auto Scan	1
Motion Detection	4 areas
Camera Address	1~254

Compression

Video Compression	H.264 / M-JPEG
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Interface

Video Output	1.0±0.2Vp-p
Network Port	1 RJ-45 10M/100M self-adaptive Ethernet Port

Network

Data Rate	Variable bit rate (vbr); Constant bit rate (cbr): 256Kbps~3Mbps
Network Protocols	TCP/IP, HTTP, ICMP, IGMP, UDP, SMTP, RTP, RTSP, SNMP, ARP

Mechanical

Variable Speed	Pan: 0.1°/s~50°/s; Tilt: 0.1°/s~25°/s
Preset Speed	Pan: 100°/s (max.); Tilt: 30°/s (max.)
Rotation Angle	Pan: 360°; Tilt: +40°~90°
Mounting	Surface, Wall, Pole Side, Corner, Pole Top

Physical

Construction	Die-cast, extruded and sheet aluminum; stainless steel hardware
Environmental Rating	IP66
Load	Pan: 22lbs. (10kg); Tilt: 7.7lbs. (3.5kg)
Product Weight	21.61 lbs (9.8kg)
Shipping Weight	31.31 lbs (14.2kg)
Box Dimension (L×W×H)	22.99"×16.81"×10.00" (584mm×427mm×254mm)

Electrical

Power Supply	24VAC or 24VDC
Power Consumption	24VAC: 53W (w/ heater); 24VDC: 51W (w/ heater)
Heater	Thermostatically controlled, Turn on at 50°F±9°F (10°C±5°C); Turn off at 86°F±9°F (30°C±5°C)

Environmental

Atmospheric Pressure	≤1.5MPa
Operating Temp.	-40°F~140°F (-40°C~60°C)
Operating Humidity	0~90%RH (non-condensing)

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL 60950, ISO 9001:2008
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Certificate No.: ¹ BCT09LC-1321E; ² BCT09LC-1314E.

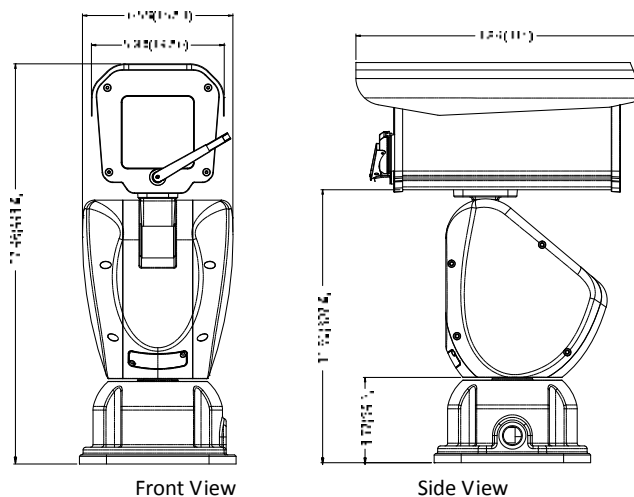
Ordering information

V1492N-36N05	Integrated High-speed IP PTZ Camera System (H.264/M-JPEG Format, NTSC, 36X, 24 VDC)
V1492N-36N06	Integrated High-speed IP PTZ Camera System (H.264/M-JPEG Format, NTSC, 36X, 24 VAC)
V1492N-36N15	Integrated High-speed IP PTZ Camera System (H.264/M-JPEG Format, PAL, 36X, 24 VDC)
V1492N-36N16	Integrated High-speed IP PTZ Camera System (H.264/M-JPEG Format, PAL, 36X, 24 VAC)

Recommended Installation Mounts

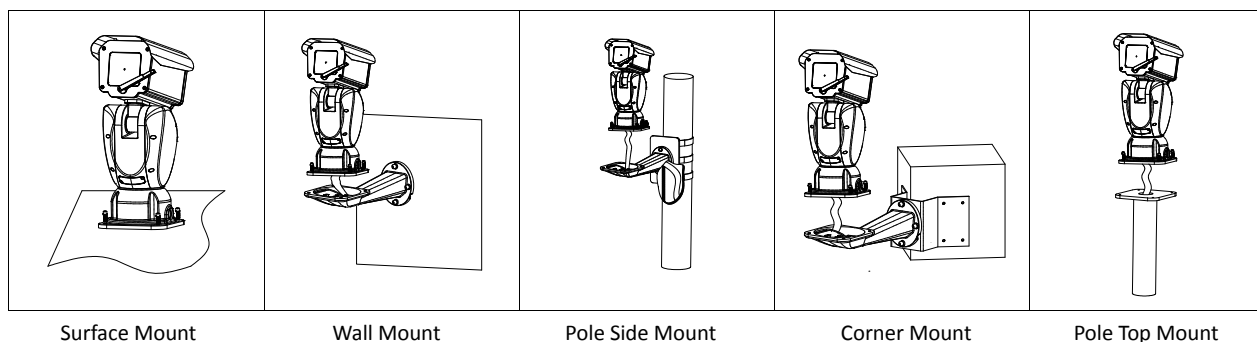
V1662-W1	Wall Mount, 15 inch
V1662-S1	Pole Side Mount, 15 inch
V1662-C1	Corner Mount, 15 inch

Dimensions



(Unit: inch, in the parentheses is mm)

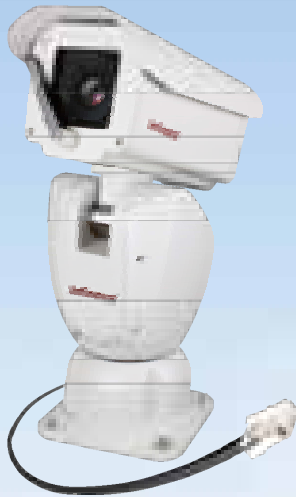
Mounting



V1492N-T Series

Integrated High-speed IP PTZ Camera System

Infinova[®]
The Integrator's Manufacturer



- Resolution up to D1@ H.264/M-JPEG
- Three simultaneous video streams: Dual H.264 & Scalable M-JPEG
- Low bandwidth with high image quality and smooth video
- Onvif Profile S
- Remote PTZ control
- Supports RS485 remote control and analog video output
- Area zoom and image overlapping
- Multiple white balance modes
- Local recording
- Storage to SD card
- Supports Presets, AutoPans, Patterns, AutoScan, Timed Tour, Normal Tour and Home Return
- Privacy mask, motion detection
- 2 alarm inputs and 1 relay output
- Two-way audio, G.711
- High strength aluminum-alloy casting, heat and corrosion resistant
- Window wiper, built-in heater, window defroster/defogger included
- Operational in 90 mph wind conditions; withstanding wind velocity of up to 130 mph
- IP66 environment rating
- Upgrade online

V1492N-T Series Integrated High-speed IP PTZ Camera System is a new generation of video surveillance product developed by Infinova, which can provide high image quality with the resolution up to D1, true day/night functionality, H.264 (major and minor stream) and M-JPEG compression formats, and three simultaneous video streams. Built-in with 36X camera module, this camera also features auto focus, auto white balance, auto gain control, etc. A precision motor drive is applied for good operability, flexible action, smooth running and little noise.

The PTZ cameras offer a user-friendly GUI interface, which makes it easy to adjust the video parameters and perform the PTZ operation. In addition, functions like area zoom and image PTZ are also available.

The PTZ cameras also feature such functions as Presets, Patterns, AutoPans, AutoScan and Normal Tour.

Its powder-coated aluminum construction, absolute operating temperature range of -40°F~140°F (-40°C~60°C) and built-in heater and defroster automatically enabled at low temperatures makes it an ideal surveillance solution for both indoor and outdoor applications.

Technical specifications

Lens

Optic Zoom	36X
Aperture/Focal Length	F1.4~ F4.2; f=3.3~119mm
Angle of View	60.2° (Wide) ~1.8° (Tele)
Min. Work Distance	0.01m (Wide) ~ 1.5m (Tele)

Camera

Image Sensor	1/4" progressive scanning CCD
Scanning System	2:1 Interlace scanning
Video Type	PAL/NTSC (D/N)
Effective Pixels	PAL/440K: 752(H) x 582 (V) NTSC/380K: 768 (H) x 494 (V)
Sensitivity	Color mode: 1.0 lux (NTSC: 1/60s, PAL: 1/50s); 0.1 lux (NTSC: 1/4s, PAL: 1/3s) B/W mode: 0.01 lux (NTSC: 1/4s, PAL: 1/3s)
S/N Ratio	>50dB
Sync System	Internal
Iris	Auto / Manual / M/A
Focus	Auto / Manual / M/A
Shutter Speed	Auto: Default Manual: PAL: 1/1.5~1/30,000s; NTSC: 1/2~1/30,000s

Image

Frame Rate (max.)	NTSC: 30fps; PAL: 25fps
Maximum Resolution	D1 @H.264/M-JPEG
Horizontal Resolution	540TVL
Optional Resolution	Major stream: PAL: D1 (720×576) / 4CIF (704 × 576); NTSC: D1 (720×480) / 4CIF (704 × 480) Minor stream: PAL: D1 (720×576) / 4CIF (704 × 576) / 2CIF (704 × 288) / CIF (352 × 288) / QCIF (176 × 144) NTSC: D1 (720×480) / 4CIF (704 × 480) / 2CIF (704 × 240) / CIF (352 × 240) / QCIF (176 × 120)
BLC	ON/OFF
AGC	Available
WDR	OFF/WDR/AD WDR/ WDR*/AD WDR*
DNR	OFF/AUTO/MANU
DSS	Available
White Balance	AUTO/MANU/MERC/SODI
EIS	ON/OFF
Others	Sharpness adjustable

Operational

Presets	1~255
Patterns	4
Autopans	4
Normal Tours	6 (each tour can be associated with 14 actions, including Preset 1~32, Pattern 1~4, or AutoPan 1~4)
Home Return	Available
Timed Tour	Available
Auto Scan	Available
Alarm	2 alarm inputs, 1 relay output

Privacy Mask	4
Motion Detection	4 areas
Area Zoom	Available
Web Server	Available
Upgrade Online	Available

Network

Network Delay	<300ms
Data Rate	Variable bit rate (vbr); Constant bit rate (cbr): 256Kbps~10000Kbps
Network Protocols	IPv4, TCP, UDP, IGMP, DHCP, FTP, SNMP(v3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP

RS485

Decoder	INFINOVA, PELCO-P/D
Camera Address	1~255
Baud Rate	2400/4800/9600bps

Compression

Audio Compression	G.711
Video Compression	H.264/M-JPEG

Interface

Audio Port	1 input, linear level, impedance: 1kΩ; 1 output, linear level, impedance: 600Ω
Network Port	RJ45 10/100M self-adaptive Ethernet port

Mechanical

Variable Speed	Pan: 0.1°/s~50°/s; Tilt: 0.1°/s~25°/s
Preset Speed	Pan: 100°/s (max.); Tilt: 30°/s (max.)
Rotation Angle	Pan: 360°; Tilt: +40°~-90°
Mounting	Surface, Wall, Pole Side, Corner, Pole Top

Physical

Construction	Die-cast, extruded and sheet aluminum; stainless steel hardware
Environmental Rating	IP66
Load	Pan: 22lbs. (10kg); Tilt: 7.7lbs. (3.5kg)
Product Weight	21.61 lbs (9.8kg)
Shipping Weight	31.31 lbs (14.2kg)
Box Dimension (L×W×H)	22.99"×16.81"×10.00" (584mm×427mm×254mm)

Electrical

Power Supply	24VDC/24VAC self-adaptive
Power Consumption	24VAC: 76W (w/ heater); 24VDC: 67.2W (w/ heater)
Surge Protection	±2000V

Environmental

Atmospheric Pressure	≤1.5MPa
Operating Temp.	-40°F~140°F (-40°C~60°C)
Storage Temp.	-40°F~140°F (-40°C~60°C)
Operating Humidity	0~90%RH (non-condensing)
Heater	Thermostatically controlled, Turn on at 50°F±9°F (10°C±5°C); Turn off at 86°F±9°F (30°C±5°C)

Certifications and Approval

Product Certifications	CE ¹ , FCC ² , ISO 9001:2008
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Certificate No.: ¹ CTL1406251445-EC; ² CTL1406251445-FCC.

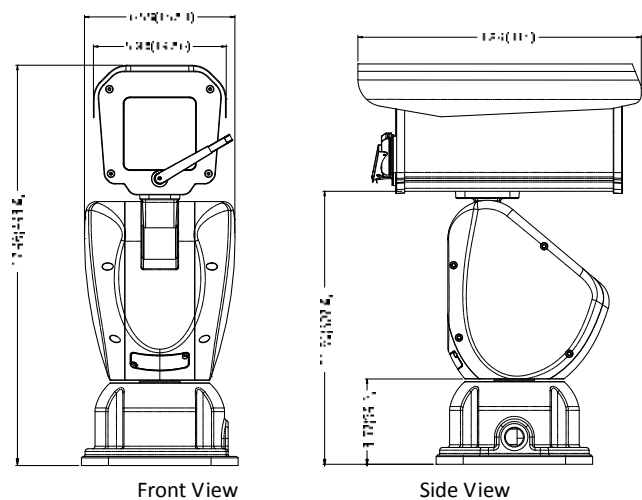
Ordering information

V1492N-36T03H	Integrated High-speed IP PTZ Camera System (H.264/M-JPEG Format, D1, NTSC, 36X, 24VDC/24VAC)
V1492N-36T13H	Integrated High-speed IP PTZ Camera System (H.264/M-JPEG Format, D1, PAL, 36X, 24VDC/24VAC)

Recommended Installation Mounts

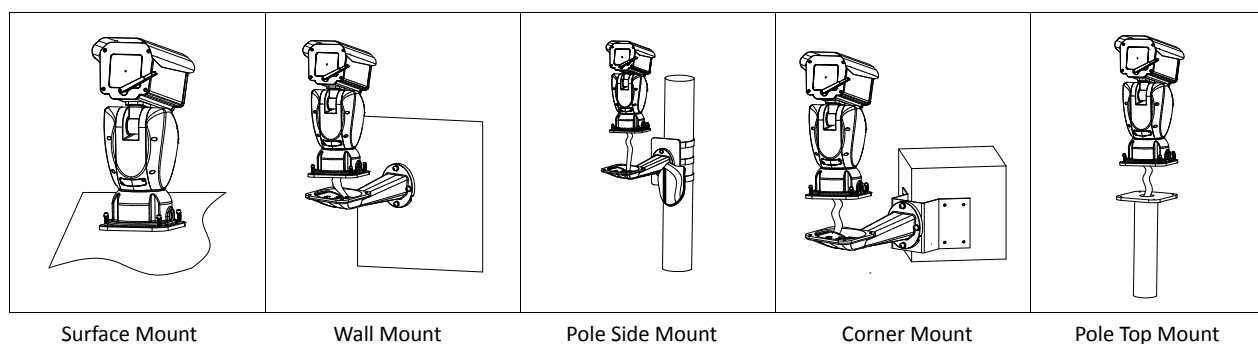
V1662-W1	Wall Mount, 15 inch
V1662-S1	Pole Side Mount, 15 inch
V1662-C1	Corner Mount, 15 inch

Dimensions



(Unit: inch, in the parentheses is mm)

Mounting



V1492MP-T Series

HD 1MP and 2MP Integrated High-speed IP PTZ Camera System

Infinova[®]
The Integrator's Manufacturer



- Built-in with 18X, 20X or 30X HD integrated camera module
- Resolution up to 1920×1080@30fps or 1280×720@30fps
- Three Simultaneous Video Streams: Dual H.264 high profile & Scalable M-JPEG
- ONVIF Profile S compliant
- Remote PTZ control
- Supports RS485 remote control and analog video output
- Area zoom and image PTZ
- Web-based graphical OSD
- Multiple white balance modes
- Local recording
- Storage to SD card
- Supports Presets, AutoPans, Patterns, AutoScan, Timed Tour, Normal Tour and Home Return
- Privacy mask, motion detection
- Alarm function (2 alarm inputs and 1 relay output)
- Bi-directional audio, G.711
- High strength aluminum-alloy casting, heat and corrosion resistant
- Window wiper, built-in heater and window defroster
- Operational in 90mph wind conditions, withstanding wind velocity of up to 130mph
- IP66 environmental rating
- Upgrade online

V1492MP-T series HD 1MP and 2MP integrated high-speed IP PTZ camera system features a set of full digital real-time image acquisition system to deliver clear image at high frame rate and excellent signal-to-noise ratio.

V1492MP-T series which is built-in with 18X, 20X or 30X HD camera module provides 1280×720@30fps or 1920×1080@30fps resolution, H.264/M-JPEG compression formats, and three simultaneous video streams.

The PTZ cameras offer a user-friendly GUI interface, which makes it easy to adjust the video parameters and perform the PTZ operation. In addition, functions like area zoom and image PTZ are also available.

The PTZ cameras also feature such functions as Presets, Patterns, AutoPans, AutoScan and Normal Tour.

Its powder-coated aluminum construction, absolute operating temperature range of -40°F~140°F (-40°C~60°C) and built-in heater and defroster automatically enabled at low temperatures makes it an ideal surveillance solution for both indoor and outdoor applications.

Technical specifications

Models

V1492MP-18TH, V1492MP-20TH, V1492MP-20TL,
V1492MP-30TH, V1492MP-30TS

Lens

Optical Zoom	18X, 20X, 30X
Aperture/ Focal Length	18TH: F1.6~F2.8, f=4.7~84.6mm 20TH: F1.6~F3.5, f=4.7~94mm 20TL: F1.6~F3.5, f=4.7~94mm 30TH: F1.4~F4.6, f=4.4~132.0mm 30TS: F1.6~F4.7, f=4.3~129mm
Angle of View (H)	18TH: 59.7° (Wide) ~ 3.6° (Tele) 20TH: 55.2° (Wide) ~ 2.9° (Tele) 20TL: 59.5° (Wide) ~ 3.2° (Tele) 30TH: 62.9° (Wide) ~ 2.2° (Tele) 30TS: 59.5° (Wide) ~ 2.1° (Tele)
Min. Work Distance	18TH: 0.01m (Wide)~ 1.0m (Tele) 20TH: 0.01m (Wide) ~ 1.0m (Tele) 20TL: 0.01m (Wide) ~ 1.0m (Tele) 30TH: 0.01m (Wide) ~ 1.5m (Tele) 30TS: 0.01m (Wide)~ 1.2m (Tele)

Camera

Image Sensor	18TH: 1/3" CCD 20TH: 1/2.8" CMOS 20TL: 1/2.8" CMOS 30TH: 1/3" CCD 30TS: 1/2.8" CMOS
Scanning System	Progressive scanning
Effective Pixels	1.0Mpx (18TH, 30TH) 2.0Mpx (20TH, 20TL, 30TS)
S/N Ratio	>50dB
Sensitivity (18TH)	Color mode (1/30s): 0.8 lux (1/30s, F1.6 (wide), 50%, AGC-Gain: 34dB) 0.1 lux (1/4s, F1.6 (wide), 50%, AGC-Gain: 34dB) B/W mode (1/4s): 0.01 lux (1/4s, F1.6 (wide), 50%, AGC-Gain: 34dB)
Sensitivity (20TH)	Color mode: 0.8 lux @F1.6 (50IRE) B/W mode: 0.02 lux @F1.6 (50IRE)
Sensitivity (20TL)	Color mode: 0.04 lux @ F1.6 (AGC ON) B/W mode: 0.005 lux @ F1.6 (AGC ON)
Sensitivity (30TH)	Color mode: 0.5 lux (1/30s, F1.4 (wide), 50%, AGC-Gain: 35dB) 0.1 lux (1/4s, F1.4 (wide), 50%, AGC-Gain: 35dB) B/W mode: 0.005 lux (1/4s, F1.4 (wide), 50%, AGC-Gain: 35dB)
Sensitivity (30TS)	Color mode: 0.5 lux (1/30s, 50%, high sensitivity mode on) 0.08 lux (1/4s, 1/3s, 50%, high sensitivity mode on) B/W mode: 0.095 lux (1/30s, 50%, high sensitivity mode on) 0.005 lux (1/4s, 1/3s, 30%, high sensitivity mode on)
Sync System	Internal
Iris	Auto, Manual, M/A
Focus	Auto, Manual, M/A

Shutter	18TH: Auto (1/30s~1/10000s) 20TH: Auto (1/1.5s~1/30,000s) 20TL: Auto (1/25s~1/10000s) 30TH: Auto (1/4s~1/10000s) 30TS: Auto (1/1s~1/10000s)
DSS	Available (for 20TH, 20TL, 30TH, 30TS)
Image	
Max. Resolution	18TH/30TH: 1280×720@30fps 20TH/20TL/30TS: 1920×1080@30fps
Image Mirror	18TH: Off/H-mirror 20TH/20TL/30TH/30TS: Off/H-mirror/V-mirror/HV-mirror
Image Freeze	Available (for 20TH, 30TH, 30TS)
DNR	20TL: OFF/Level 1~7 20TH/30TH: OFF/MANU/AUTO (level 1~3) 30TS: OFF/Level 1~5
White Balance	18TH/20TH/20TL/30TH: AUTO/MANU/SODI/MERC 30TS: AUTO/MANU/INDOOR/OUTDOOR/ ATW/OUTDOOR AUTO/SODI AUTO
AGC	Available
WDR	18TH/20TL: ON/OFF 20TH: OFF/WDR/WDR*/AD WDR/AD WDR* 30TH: WDR*/AD WDR* 30TS: ON/OFF/AUTO
EIS	Available (for 30TH/30TS)
BLC	ON/OFF
Defog Processing	Available
Operational	
Presets	1~255
Patterns	4
Autopans	4
Normal Tours	6 (each tour can be associated with 14 actions, including Preset 1~32, Pattern 1~4, or AutoPan 1~4)
Home Return	Available
Timed Tours	Available
Auto Scan	Available
Privacy Mask	4 areas (for 18TH, 20TH and 30TH); 6 areas (for 20TL) 24 areas (for 30TS)
Motion Detection	4 areas
Alarm	2 inputs, 1 output
Area Zoom	Available
Web Server	Available
Upgrade Online	Available
Compression	
Audio Compression	G.711
Video Compression	H.264 High profile/M-JPEG
Interface	
Audio Port	1 input (Linear level, resistance: 1000 Ohm) 1 output (Linear level, resistance: 600 Ohm)
Network Port	1 RJ-45 10M/100M self-adaptive Ethernet Port
Network	
Data Rate	Variable bit rate (vbr); Constant bit rate (cbr): 256Kbps~10Mbps
Network Delay	<300ms
Network Protocol	IPv4, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP

Technical specifications (continued)

Mechanical

Variable Speed	Pan: 0.1°~30°/s; Tilt: 0.1°~20°/s
Preset Speed	60°/s (max.)
Preset Accuracy	±0.3°
Rotation Angle	Pan: 360°; Tilt: +40° ~ -80°

Electrical

Power Supply	24VDC
Power Consumption	<72W (w/ heater)

Environmental

Atmospheric Pressure	≤1.5MPa
Operating Temp.	-40°F~140°F (-40°C~+60°C)
Storage Temp.	-4°F~140°F (-20°C~+60°C)
Operating Humidity	0~95%RH (non-condensing)
Defroster	Thermostatically controlled; Turns on below 59°F (15°C); Turns off above 68°F (20°C)

Physical

Construction	High-strength aluminum alloy, stainless steel
Environmental Rating	IP66
Mounting	Surface, wall, pole side, corner, pole top
Window Type	HD transparent glass
Window Size	2.32" × 2.32" (59mm×59mm)
Unit Weight	39.68lbs. (18kg)
Shipping Weight	46.30 lbs. (21kg)
Unit Dimensions (L×W×H)	18.11"×8.13"×19.26" (460 mm×206.6 mm×489.1 mm)
Box Dimensions (L×W×H)	23.03"×13.00"×24.21" (585 mm×330 mm×615 mm)

Certifications and Approval

Product Certifications	CE ¹ , FCC ² , UL, ISO 9001: 2008
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Certificate No.: ¹ CTL1404150727-EC; ² CTL1404150727-FCC.

Ordering information

V1492MP-18T05HE	HD 1MP Integrated high-speed IP PTZ Camera System (18X optical zoom, day/night, 1/3-inch progressive scan CCD, H.264/MJPEG, NTSC/PAL, 24VDC)
V1492MP-30T05HE	HD 1MP Integrated high-speed IP PTZ Camera System (30X optical zoom, day/night, 1/3-inch progressive scan CCD, H.264/MJPEG, NTSC/PAL, 24VDC)
V1492MP-20T25HE	HD 2MP Integrated high-speed IP PTZ Camera System (20X optical zoom, day/night, 1/2.8-inch progressive scan CMOS, H.264/MJPEG, NTSC/PAL, 24VDC)
V1492MP-20T25LE	HD 2MP Integrated high-speed IP PTZ Camera System (20X optical zoom, day/night, 1/2.8-inch progressive scan CMOS, H.264/MJPEG, NTSC/PAL, 24VDC)
V1492MP-30T25SE	HD 2MP Integrated high-speed IP PTZ Camera System (30X optical zoom, day/night, 1/2.8-inch progressive scan CMOS, H.264/MJPEG, NTSC/PAL, 24VDC)

Note: The mounting brackets and 24VDC power supply shall be ordered separately.

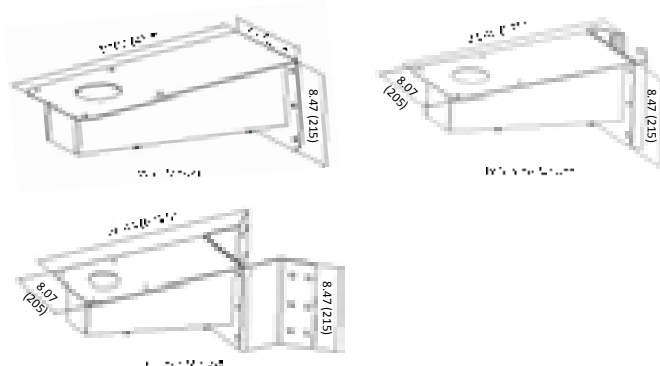
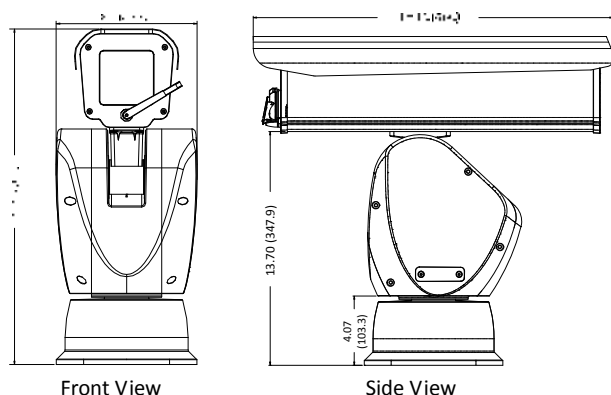
Recommended Installation Mounts

V1663-W2	Wall Mount
V1663-S2	Pole Side Mount
V1663-C2	Corner Mount

Power Supply

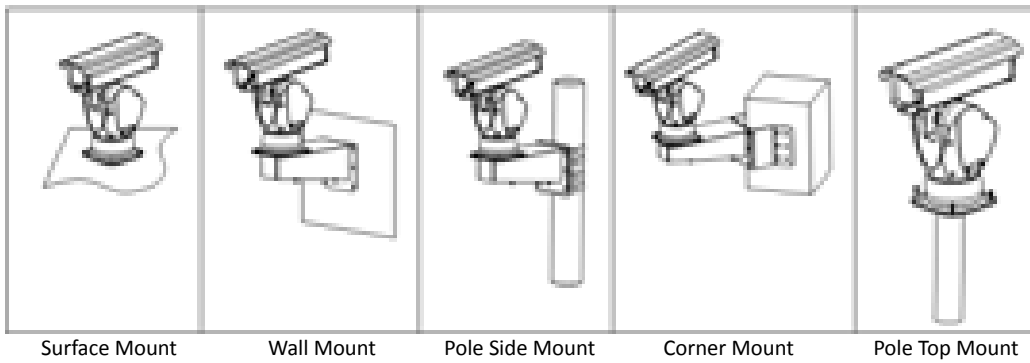
N3925-24D-3	Power Supply, 24VDC, 3.75VA, Plug-In, 110-230VAC
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Dimensions



(Unit: inch, in the parentheses is mm)

Mounting



V1492MR-T Series

HD 1MP and 2MP Integrated IP PTZ Camera with IR Illuminators

Infinova[®]
The Integrator's Manufacturer



- Built-in with 18X or 20X HD integrated camera module
- Resolution up to 1920×1080@30fps or 1280×720@30fps
- Built-in imported high efficiency IR LED (wavelength: 850 nm) for super night vision, with an IR range of 330ft. (100m)
- Automatically adjust the power consumption of IR LED as per the camera zoom level to deliver outstanding image quality
- Supports infrared light focusing, to avoid virtual focus
- Three Simultaneous Video Streams: Dual H.264 high profile & Scalable M-JPEG
- Onvif Profile S compliant
- Remote PTZ control
- Supports RS485 remote control and analog video output
- Supports area zoom and image PTZ
- Multiple white balance modes
- Supports image overlapping
- Supports defog processing
- Local recording, storage to SD card
- Supports Presets, AutoPans, Patterns, AutoScan, Timed Tour, Normal Tour and Home Return
- Privacy mask, motion detection
- Alarm function (2 alarm inputs and 1 relay output)
- Bi-directional audio, G.711
- High strength aluminum-alloy casting, heat and corrosion resistant
- Window wiper, built-in heater and window defroster
- Operational in 90mph wind conditions, withstanding wind velocity of up to 130mph
- IP66 environmental rating
- Upgrade online

V1492MR-T series HD 1MP and 2MP Integrated IP PTZ Camera with IR Illuminators features a set of full digital real-time image acquisition system to deliver clear image at high frame rate and excellent signal-to-noise ratio.

V1492MR-T series supports H.264 and M-JPEG compression formats, available with three simultaneous video streams. The PTZ cameras are compatible with 18X and 20X HD camera module, with the resolution up to 1280 × 720@30fps or 1920×1080@30fps.

The PTZ cameras offer a user-friendly GUI interface, which makes it easy to adjust the video parameters and perform the PTZ operation. In addition, functions like area zoom and image PTZ are also available.

The PTZ cameras use imported high efficiency IR LED, with wavelength of 850 nm and IR effective range up to 330ft. (100 m). The power consumption of the IR LED can be automatically adjusted as per the zoom level of the camera, so as to deliver an ideal night vision effect. Besides, the IR LEDs have high stability, which can be used for a long time, and can reduce maintenance costs.

The PTZ cameras also feature such functions as Presets, Patterns, AutoPans, AutoScan and Normal Tour.

Its powder-coated aluminum construction, absolute operating temperature range of -40°F~140°F (-40°C~60°C) and built-in heater and defroster automatically enabled at low temperatures makes it an ideal surveillance solution for both indoor and outdoor applications.

Technical specifications

Models

V1492MR-18TH, V1492MR-20TH

Lens

Optical Zoom	18X, 20X
Aperture/ Focal Length	18TH: F1.6~F2.8, f=4.7~84.6mm 20TH: F1.6~F3.5, f=4.7~94mm
Angle of View (H)	18TH: 59.7° (Wide) ~ 3.6° (Tele) 20TH: 55.2° (Wide) ~ 2.9° (Tele)

Min. Work Distance	0.01m (Wide)~ 1.0m (Tele)
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Camera

Image Sensor	18TH: 1/3" CCD 20TH: 1/2.8" CMOS
Scanning System	Progressive scanning
Effective Pixels	1.0Mpx (18TH) 2.0Mpx (20TH)
S/N Ratio	>50dB
Sensitivity (18TH)	Color mode: 0.8 lux (1/30s, F1.6, 50%, AGC-Gain: 34dB) 0.1 lux (1/4s, F1.6, 50%, AGC-Gain: 34dB) B/W mode: 0 lux (IR on)
Sensitivity (20TH)	Color mode: 0.8 lux @F1.6 (50IRE) B/W mode: 0 lux (IR on)
Sync System	Internal
Iris	Auto, Manual, M/A
Focus	Auto, Manual, M/A
Shutter	18TH: Auto (1/30s~1/10000s) 20TH: Auto (1/1.5s~1/30,000s)
DSS	Available (for 20TH)

Image

Max. Resolution	18TH: 1280×720@30fps 20TH: 1920×1080@30fps
Image Mirror	18TH: Off/H-mirror 20TH: Off/H-mirror/V-mirror/HV-mirror
Image Freeze	Available (for 20TH)
DNR	18TH: / 20TH: OFF/MANU/AUTO (level 1~3)
White Balance	AUTO/MANU/SODI/MERC
AGC	Available
WDR	18TH: ON/OFF 20TH: OFF/WDR/WDR*/AD WDR/AD WDR*
BLC	ON/OFF
Defog Processing	Available
Others	18TH: Sharpness adjustable 20TH: Sharpness adjustable, Slow AE

Operational

Presets	1~255
Patterns	4
Autopans	4
Normal Tours	6 (each tour can be associated with 14 actions, including Preset 1~32, Pattern 1~4, or AutoPan 1~4)
Home Return	Available
Timed Tours	Available
Auto Scan	Available
Motion Detection	4 areas
Privacy Mask	4 areas
Alarm	2 inputs, 1 output
Area Zoom	Available
Web Server	Available
Upgrade Online	Available

Compression

Audio Compression	G.711
Video Compression	H.264 High profile/M-JPEG

Interface

Audio Port	1 input (Linear level, resistance: 1000 Ohm) 1 output (Linear level, resistance: 600 Ohm)
Network Port	1 RJ-45 10M/100M self-adaptive Ethernet Port

Network

Data Rate	Variable bit rate (vbr); Constant bit rate (cbr): 256Kbps~10Mbps
Network Delay	<300ms
Network Protocol	IPv4, TCP, UDP, IGMP, DHCP, FTP, SNMP (V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP

Mechanical

Variable Speed	Pan: 0.1°~30°/s; Tilt: 0.1°~20°/s
Preset Speed	60°/s (max.)
Preset Accuracy	±0.3°
Rotation Angle	Pan: 360°; Tilt: +40° ~ -80°

Electrical

Power Supply	24VDC/24VAC
Power Consumption	<110W (w/ heater)

Environmental

Atmospheric Pressure	≤1.5MPa
Operating Temp.	-40°F~140°F (-40°C~+60°C)
Storage Temp.	-4°F~140°F (-20°C~+60°C)
Operating Humidity	0~95%RH (non-condensing)
Defogger	Thermostatically controlled: Turns on below 59°F (15°C); Turns off above 68°F (20°C)

Physical

Construction	High-strength aluminum alloy, stainless steel
Environmental Rating	IP66
IR LED	Wave length: 850nm; Coverage distance: 330ft (100m)
Mounting	Surface, wall, pole side, corner, pole top
Window Type	HD transparent glass
Window Size	2.32" × 2.32" (59mm×59mm)
Unit Weight	48.50lbs. (22kg)
Shipping Weight	55.12 lbs. (25kg)
Unit Dimensions (L×W×H)	19.26"×13.79"×18.11" (489.2 mm×350.2 mm×460 mm)
Box Dimensions (L×W×H)	24.21"×23.03"×13.00" (615 mm×585 mm×330 mm) (for camera) 11.42"×8.27"×5.91" (290 mm×210 mm×150 mm) (for IR LED)

Certifications and Approval

Product Certifications	CE ¹ , FCC ² , UL, ISO 9001: 2008
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Certificate No.: ¹ CTL1407151633-EC, ² CTL1407151633-FC

Ordering information

V1492MR-18T05HE	HD 1MP Integrated IP PTZ Camera with IR illuminators (18X optical zoom, day/night, 1/3-inch progressive scan CCD, H.264/MJPEG, NTSC/PAL, 24VDC)
V1492MR-20T25HE	HD 2MP Integrated IP PTZ Camera with IR illuminators (20X optical zoom, day/night, 1/2.8-inch progressive scan CMOS, H.264/MJPEG, NTSC/PAL, 24VDC)
V1492MR-18T06HE	HD 1MP Integrated IP PTZ Camera with IR illuminators (18X optical zoom, day/night, 1/3-inch progressive scan CCD, H.264/MJPEG, NTSC/PAL, 24VAC)
V1492MR-20T26HE	HD 2MP Integrated IP PTZ Camera with IR illuminators (20X optical zoom, day/night, 1/2.8-inch progressive scan CMOS, H.264/MJPEG, NTSC/PAL, 24VAC)

Note: The mounting brackets, 24VDC and 24VAC power supply unit shall be ordered separately.

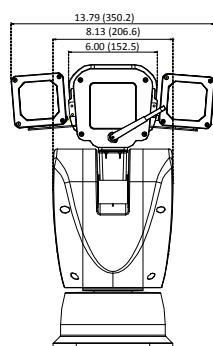
Recommended Installation Mounts

V1663-W2	Wall Mount
V1663-S2	Pole Side Mount
V1663-C2	Corner Mount

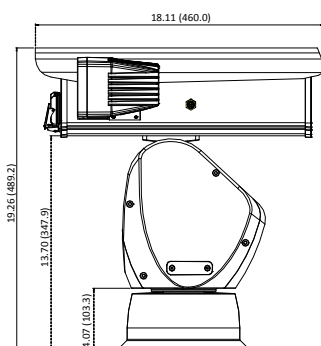
Power Supply

N3925-24D-6	Power Supply, 24VDC, 6A, Plug-In, 110-230VAC
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Dimensions



Front View



Side View



Wall Mount



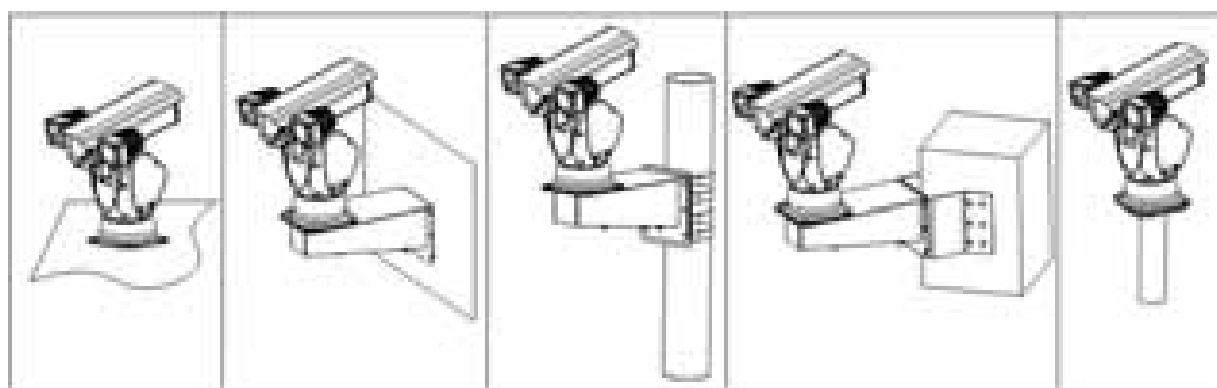
Pole Side Mount



Corner Mount

(Unit: inch, in the parentheses is mm)

Mounting



Surface Mount

Wall Mount

Pole Side Mount

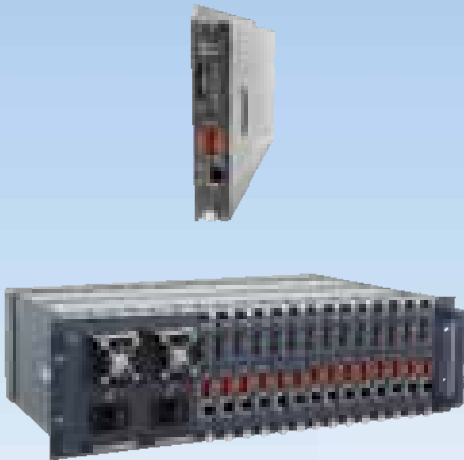
Corner Mount

Pole Top Mount

V2511-K Series

IP Video Encoder

Infinova[®]
The Integrator's Manufacturer



- **Three simultaneous video streams: dual H.264 & scalable M-JPEG**
- **UP to 4CIF@30fps with H.264 stream and M-JPEG stream**
- **Bi-directional audio, G.711**
- **Remote PTZ control**
- **Privacy mask**
- **Motion detection**
- **Supports alarm input and output**
- **Multiple ways to dispose alarms, such as sending an email, FTP upload, audible alarm**
- **Compatible with TCP/IP, HTTP, ICMP, DHCP, UDP, SMTP, RTP, RTSP, SNMP, ARP, etc. protocols**
- **Accesses and configures parameters via Web Server**

V2511-K series IP Video Encoder (card) is a brand new network video encoding terminal, integrates video & audio encoding and data transmission technologies, very suitable for remote video & audio monitoring, and can be widely used for security applications in building, traffic system, power plant and others.

V2511-K series IP Video Encoder (card) uses the powerful Digital Signal Processing (DSP) technology. A single card provides real time encoding of 4 video inputs, with H.264 /M-JPEG video encoding formats and three simultaneous video streams optional for storage or viewing.

V2511-K series IP Video Encoder (card) features powerful remote network control function, which allows configuration of video encoding parameters via Web Server or client-end software.

V2511-K series standalone video encoder is designed in single card with separate power supply, featuring in compact size and supporting wall or desk mounting. It can work together with N3913 series chassis. The N3913 series chassis is designed with multiple slots, and supports plug and play. A single chassis can accommodate 17 encoding cards at the most.

Technical specifications

Video Encoding	H.264/M-JPEG
Video Input (single card)	4, BNC (1.0 Vp-p, 75 ohm)
Video System	PAL/NTSC self-adaptive
Maximum Resolution	4CIF@H.264/M-JPEG
Optional Resolutions (Major stream)	PAL: 4CIF(704×576)/2CIF(704×288)/CIF(352×288); NTSC: 4CIF(704×480)/2CIF(704×240)/CIF(352×240)
Optional Resolutions (Minor stream)	PAL: CIF(352×288)/QCIF(176×144); NTSC: CIF(352×240)/QCIF(176×120)
Frame Rate (maximum)	PAL: 25fps; NTSC: 30fps
Data Rate	Variable bit rate (vbr); Constant bit rate (cbr): 256Kbps~2Mbps
Audio Encoding	G.711
Audio Interface	4 inputs / 1 output (single card)
Network Protocol	TCP/IP, HTTP, ICMP, DHCP, UDP, SMTP, RTP, RTSP, SNMP, ARP etc.
Network Interface	10/100Mbps Base-T, self-adaptive, RJ-45
Control Interface	1 RS-422 port
Alarm Interface	4 alarm inputs / 2 alarm outputs (single card)
Power Supply	Standalone module: 12VDC/24VAC/PoE (IEEE 802.3af Class 2); Rack style: 110VAC~230VAC

Power Consumption (single card)	≤6W
Operating Temperature	14°F ~ 122°F (-10°C ~ 50°C)
Operating Humidity	10%~90%RH (non-condensing)
Mechanical Specifications (standalone module)	
Product Size (H×W×D)	6.22" ×0.94" ×9.17" (158mm×24mm×233mm)
Package Size (H×W×D)	2.99"×9.49"×12.20" (76mm×241mm×310mm)
Net Weight	1.54lbs. (0.70kg)
Shipping Weight	2.98lbs. (1.35kg)
Mechanical Specifications (rack style)	
Chassis Size	3U standard
Net Weight	17-card single power chassis: 15.65lbs. (7.1kg) 14-card double power chassis: 14.99lbs. (6.8kg)
Mounting	19" EIA standard rack mount
Package Size (L×W×H)	20.47"×15.75"×9.84" (520mm×400mm×250mm)
Certifications and Approval	
Product Certifications	CE, FCC, ISO 9001:2008

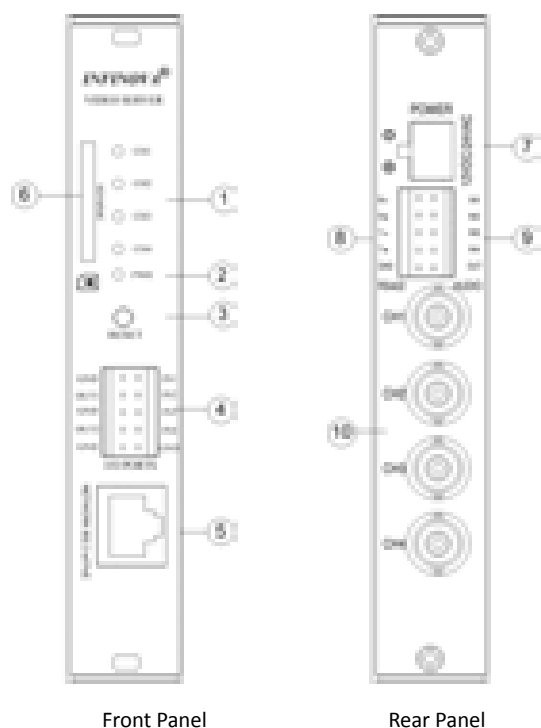
Ordering information

V2511-K4D0	IP Video Encoder, 4 video inputs, H.264 & M-JPEG, 4CIF, PoE/12VDC/24VAC
V2511-K4D	IP Video Encoder Card, 4 video inputs, H.264 & M-JPEG, 4CIF
N3913-17S	19" chassis, single power supply, 17 slots, no power supply
N3913-17S1	19" chassis, single power supply, 17 slots, power supply included
N3913-14R	19" chassis, double power supply, 14 slots, no power supply
N3913-14R1	19" chassis double power supply, 14 slots, and power supplies included
N3923-135W	135W power supply
N3910-000	Fan

Note: Please order a fan for the N3913-17S Chassis if more than 7 cards are used and one for N3913-14R Chassis if more than 6 cards are used.

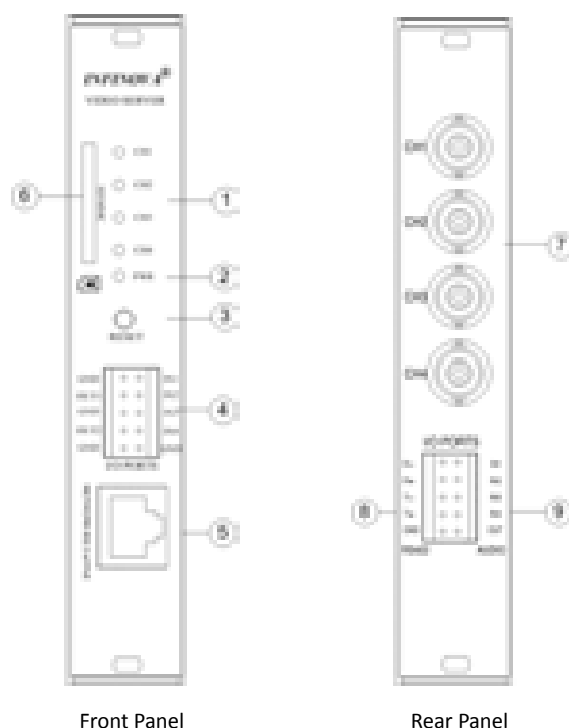
Panel diagrams

Video Encoder Panel



- (1) Video input indicators (4 videos)
- (2) Power Indicator
- (3) Reset button
- (4) Alarm input/output interface
- (5) Ethernet Interface and indicators
- (6) Reserved
- (7) Power input interface
- (8) RS422 port
- (9) Audio Input / output interface
- (10) 4 Video input interfaces

Video Encoder Card Panel

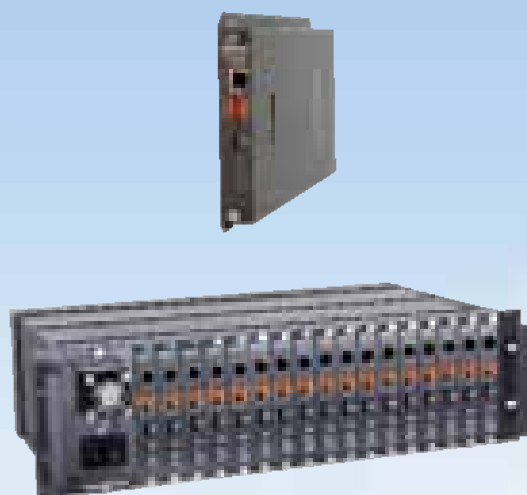


- (1) Video input indicators (4 videos)
- (2) Power Indicator
- (3) Reset button
- (4) Alarm input/output interface
- (5) Ethernet Interface and indicators
- (6) Reserved
- (7) Video input interface
- (8) RS422 port
- (9) Audio Input / output interface

V2521-N Series

IP Video Decoder

Infinova
The Integrator's Manufacturer



- **MPEG-4/H.264 SD video decoding**
- **Real time D1/4CIF/2CIF/CIF video decoding**
- **1 analog output port**
- **PAL/NTSC self-adaptive**
- **Supports TCP/IP, HTTP, SNMP, UDP, NTP, etc.**
- **Configures system parameters via Web server or V2216**
- **G.711 audio compression arithmetic**
- **Remote update via network**
- **Multiple users access simultaneously**
- **Multilevel user password protection to prevent unauthorized operation**

V2521-N Series IP Video Decoders/Decoding Cards use powerful digital signal processing technology to provide real-time MPEG-4/H.264 decoding and authentic video restoration.

V2521-N Series IP Video Decoders/Decoding Cards feature powerful remote control capability of network. Web server or client software can be used to configure video decoder's IP address, subnet mask, gateway, and video decoding parameters. Multilevel user password protection is provided to ensure system security.

V2521-N Series standalone IP video decoder is designed in single card with separate power supply, featuring in compact size, light weight, low power consumption and low heat generation.

The N3913 series chassis is designed with multiple slots, and supports plug and play. A single chassis can accommodate 17 decoding cards at the most.

Technical specifications

Video Decoding	MPEG-4/H.264
Decoding Capacity	D1/4CIF/2CIF/CIF (1-ch)
Video Output Interface	BNC (1.0 Vp-p, 75 Ohm)
Video System	PAL/NTSC, self-adaptive
Maximum Frame Rate	25fps(PAL)/30fps(NTSC)
Network Port	RJ-45, 10M/100M Base-T self-adaptive
Network Protocol	TCP/IP, HTTP, SNMP, UDP, NTP, etc.
Control Port	1, RS422
Power	Standalone module: 12VDC/24VAC/PoE (IEEE 802.3af Class 2) Rack style: 110VAC~230VAC
Power Consumption (Single Decoder Card)	PoE: <6.2W; 12VDC: <5.2W; 24VAC: <5W
Operating Temperature	14°F~122°F (-10°C~50°C)

Operating Humidity	10%~ 90%RH (non-condensing)
Mechanical Specifications (standalone module)	
Product Size (HxWxD)	6.22"×0.94"×9.17" (158mm×24mm×233mm)
Package Size (HxWxD)	2.99"×9.49"×12.20" (76mm×241mm×310mm)
Net weight	1.54 lbs. (0.70 kg)
Shipping weight	3.20 lbs. (1.45 kg)
Mechanical Specifications (rack style)	
Chassis Size	3U standard
Net Weight	17-card single power chassis: 15.65lbs. (7.1kg) 14-card double power chassis: 14.99lbs. (6.8kg)
Mounting	19" EIA standard rack mount
Package Size (LxWxH)	20.47"×15.75"×9.84" (520mm×400mm×250mm)
Certifications and Approval	
Product Certifications	CE, FCC, ISO 9001:2008

Ordering information

V2521-N1D0	IP video decoder module, MPEG-4/H.264, 1 video output, D1 resolution, PoE/12VDC/24VAC
V2521-N1D	IP video decoder card, MPEG-4/H.264, 1 video output, D1 resolution
N3913-17S	19" chassis, single power supply, 17 slots, no power supply
N3913-17S1	19" chassis, single power supply, 17 slots, power supply included
N3913-14R	19" chassis, double power supply, 14 slots, no power supply
N3913-14R1	19" chassis double power supply, 14 slots, power supplies included
N3923-135W	135W power supply
N3910-000	Fan

COMPATIBLE FRONT DEVICES

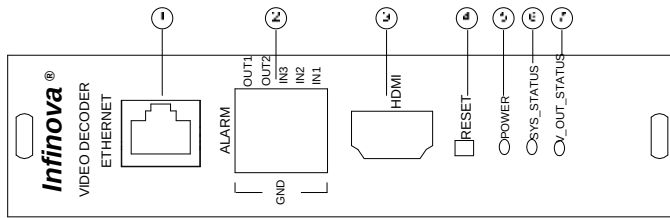
-N, -M and -T series SD products
V2511-K/V2511-N series
V3061DVR

Note: Please order a fan for the N3913-17S Chassis if more than 7 cards are used and one for N3913-14R Chassis if more than 6 cards are used.

Panel diagrams

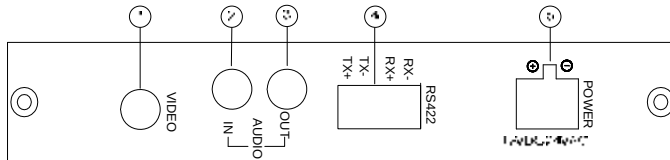
V2521-N Standalone Module

Front Panel



- (1) Ethernet port & Network status indicator
- (2) Reserved
- (3) Reserved
- (4) Reset button
- (5) Power indicator
- (6) System status indicator
- (7) Video output status indicator

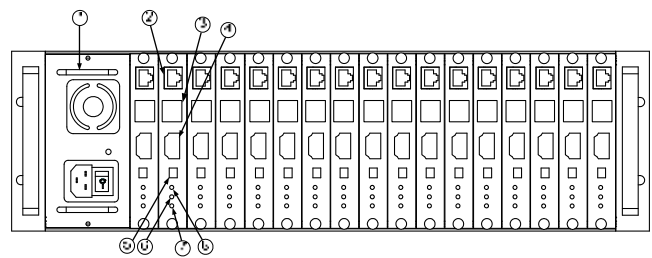
Rear Panel



- (1) Video output port
- (2) Reserved
- (3) Audio output port
- (4) RS-422 control signal port
- (5) Power Interface

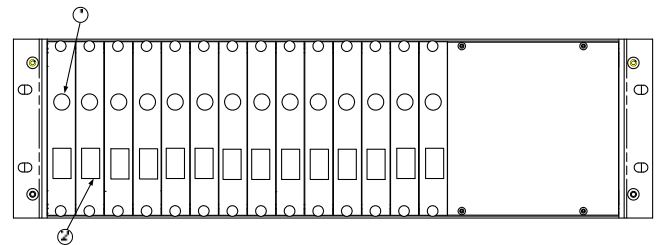
V2521-N Rack Style

Front Panel



- (1) Power supply
- (2) Ethernet port & Network status indicator
- (3) Reserved
- (4) Reserved
- (5) Reset button
- (6) Power status indicator
- (7) System status indicator
- (8) Video output status indicator

Rear Panel



- (1) Video output port
- (2) RS-422 control signal port

V2524-H1 Series

HD Video Decoder

Infinova[®]
The Integrator's Manufacturer



- **H.264 HD video decoding**
- **Real time 2048×1536/1080P/1600×1200/960P/720P/D1/ CIF/QCIF video decoding**
- **Screen division 1/4/9/16, with 1 divisional screen up to 2048×1536, 4 divisional screens up to 1080P and 9/16 divisional screens up to D1**
- **OSD character-overlapping**
- **G.711 audio decoding**
- **Supports ONVIF2.0**
- **Supports to control PTZ cameras via RS422**
- **Supports HDMI/DVI-D HD video output and BNC SD video output, with standalone module and rack style optional**
- **Configures system parameters via Web server**
- **Multiple users access simultaneously**
- **Multilevel user password protection to prevent unauthorized operation**

V2524-H1 Series HD Decoders/Decoding Cards use powerful digital signal processing technology to decode front-end devices manufactured by our company, such as -G, -T and -H series HD products, -N series SD products, V2511-K, V2511-N and V2531-S encoder and V3061 DVR, and to decode third party front-end devices (ONVIF 2.0-compliant). Besides, it provides real-time H.264 video decoding and supports real time 2048×1536/1080P/1600×1200/960P/720P/D1/ CIF/QCIF video decoding.

V2524-H1 Series HD decoder supports HDMI/DVI-D HD video output and BNC SD video output, and features powerful network remote control capability. Web server or client software can be used to configure video decoder's network channel and video decoding parameters. Besides, it supports to control PTZ cameras via RS422, and provide multilevel user password protection to ensure system security.

V2524-H1 Series standalone HD decoder is designed in single card with separate power supply, featuring in compact size, light weight, low power consumption and low heat generation.

The N3913 series chassis is designed with multiple slots, and supports plug and play.

Technical specifications

Video Decoding	H.264
Decoding Capacity	1 divisional screen supports up to 2048×1536, 4 divisional screens up to 1080P and 9/16 divisional screens up to D1
Video Output	1-ch video output, supports HDMI, DVI and CVBS
Screen Division	1/4/9/16
Audio Encoding and Decoding Standard	G.711
Audio Output	1 linear level output
Network Interface	RJ-45, 10M/100M/1000M Base-T self-adaptive
Network Protocol	TCP/IP, HTTP, SNMP, UDP, RTP, NTP etc.
Control Port	1, RS422
Power Supply	Standalone module: 12VDC/24VAC Rack style: 100VAC~240VAC
Power Consumption	Standalone module: ≤9W Rack style (full load): ≤110W
Operating Temperature	14°F~122°F (-10°C~50°C)
Storage Temperature	-4°F~140°F (-20°C~60°C)

Mechanical Specifications (standalone module)

Chassis Size (H×W×D)	6.22"×1.77"×9.17" (158mm×45mm×233mm)
Package Size (L×W×H)	11.97"×10.39"×4.09" (304mm×264mm×104mm)
Net weight	1.76 lbs. (0.80 kg)
Shipping weight	3.53 lbs. (1.6 kg)

Mechanical Specifications (rack style)

Chassis Size	3U standard
Net Weight	14-card double power chassis: 14.99lbs. (6.8kg)
Mounting	19" EIA standard rack mount
Package Size (L×W×H)	20.47"×15.75"×9.84" (520 mm×400 mm×250 mm)

Certifications and Approval

Product	CE, FCC, ISO 9001:2008
Certifications	

Ordering information

V2524-H1H4	Embedded Video Decoder, 1V out; 12VDC/24VAC
V2524-H1H	Embedded Video Decoding Card
N3913-14R1	19" chassis, double power supply, 14 slots, power supply included
N3923-135W	135W power supply
N3910-000	19" 1U fan, 120V

COMPATIBLE FRONT-END DEVICES

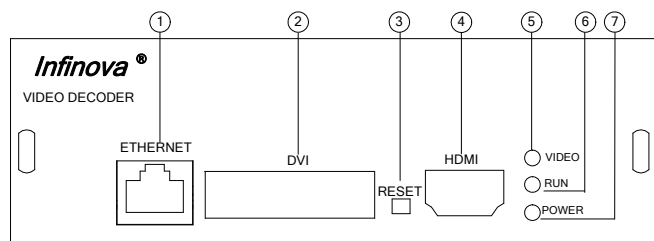
-G, -T and -H series HD products
 -N series SD products
 V2511-K, V2511-N and V2531-S encoder
 V3061 DVR
 Third party front-end devices (ONVIF 2.0-compliant)

Note: N3913-14R1 chassis should work with N3910-000 fan.

Panel diagrams

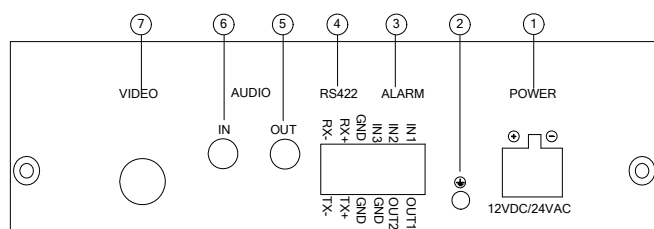
V2524-H1H4 Standalone Module

Front Panel



- (1) Ethernet port & Network status indicator
- (2) DVI port
- (3) Reset button
- (4) HDMI port
- (5) Video output status indicator
- (6) System status indicator
- (7) Power indicator

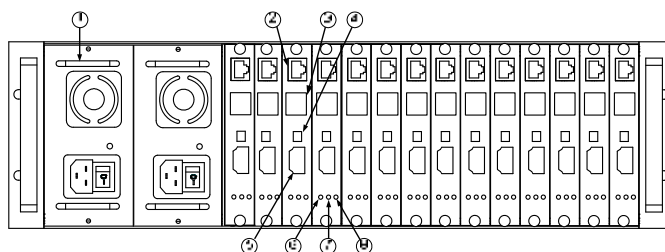
Rear Panel



- (1) Power Interface
- (2) GND interface
- (3) Alarm interface (reserved)
- (4) RS-422 control signal port
- (5) Audio output port
- (6) Audio input port (reserved)
- (7) BNC output port

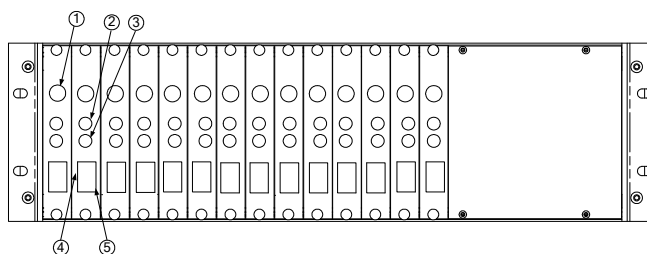
V2524-H1H Rack Style

Front Panel



- (1) Power supply
- (2) Ethernet port & Network status indicator
- (3) DVI port
- (4) Reset button
- (5) HDMI port
- (6) Power indicator
- (7) System status indicator
- (8) Video output status indicator

Rear Panel



- (1) BNC output port
- (2) Audio input port (reserved)
- (3) Audio output port
- (4) Alarm interface (reserved)
- (5) RS-422 control signal port

V2216 Series

Network Video Management Software

Infinova[®]
The Integrator's Manufacturer



V2216 network video management software is a central management platform for all kinds of network video systems. It includes two versions: V2216 Professional and V2216 Enterprise. The former is suitable for medium surveillance installation and supports a maximum of 128 video inputs, while the latter is the most powerful software which suitable for any large surveillance installation.

The V2216 digital matrix functions inherit major advantages from classic Infinova video matrix switchers, such as system tour, salvo, and alarm management. And the software allows network keyboard to control the system. The operation of V2216 is easy and convenient as that of analog video matrix. Thanks to compatibility with all Infinova digital video products and integration with all Infinova series matrix switchers and Pelco matrix switchers, the V2216 platform can perform centralized management and control over the digital video system and analog video system.

The V2216 system provides TV Wall mode. The video play window on client monitor can be used as TV wall, and the IP camera's video can be switched to the TV wall via physical keyboard or virtual keyboard. This will save the cost of decoding devices while retaining the convenience of digital matrix switching system, providing intelligent, flexible, quick and convenient services to users.

Features

System

- Multiple systems cascading, building a central management platform to a large network video system
- Supports CMS hot standby, NVR redundancy, SMT load balancing, SMT multicast and SMT multi-transmitting
- Supports digital matrix functions, such as configuration of TOUR, SALVO and Event Timer
- Two way audio talks and audio broadcasting, which can sending audio broadcasting to multiple sites simultaneously
- Supports analog keyboard
- Supports device video loss alarm and NVR hard disk (HD) error / HD expiration alarm
- Supports searching alarm information based on preset conditions, searching in a time period, and calling alarm video via the searching results
- Supports third party alarm devices: BOSCH, Honeywell, INANTER etc.
- Supports third party access control integration: DDS access control, Lenel access control, PEAK access control etc.
- Supports transmit the operating order of V2216 software to third party alarm devices
- Supports remote restarting to system devices and servers
- Supplies with SDK and supports clients to customize functions

Client and TV wall

- Major and minor code streams auto switch according to image size, so as to reduce client CPU resource consumption and improve efficiency
- Multilevel E-maps, and can remember the size and position of the video window pop-out from the E-maps
- Supports linked layers and Hawkeye function of E-map
- Supports viewing real time video by picture in picture
- Optimizes decoding performance, allowing to view 8*1080P high definition video

- Supports screen vector PTZ control and intelligent operation like zooming in the selected zone and central position adjustment by mouse click
- Supports light, wiper and user-defined control function
- Supplies with analog TV wall operations, switching videos by mouse dragging
- Supports keyboard to switch screen

Services input

- compatible with all series DVR, encoder, and camera of Dahua and Hikvision
- Integrates with analog surveillance system seamlessly to realize mutual live video calling between digital and analog systems
- Supports devices and platforms meeting the protocol of GB/T 28181
- Supports inputs of devices fitting ONVIF1.0/2.0

Intelligence (optional)

- Supports image stitching of multiple cameras, and supports up to 5*1080P panoramic stitching
- Supports linkage between dome camera and fixed camera, to realize perfect video switching
- Supports video summarizing and searching, so as to locating moving target quickly
- Supports basic behavior analysis: such as intelligent analysis of real time video and record video with the function of counting, transgression, loitering, track, item left/loss, inspection on exit and entrance
- Supports video diagnosis and detection: including quality detection of real time video and record video with the function of video occlusion and loss, definition abnormal, offset, brightness

Ordering information

V2216 PROFESSIONAL

V2216 Professional supports up to 128 video inputs.

Ordering Information

V2216-P	V2216 Professional version, supports up to 128 video inputs
V2216-P-M	V2216-P maintenance plan
V2216-P-C1	V2216 Professional License, for 1 video input
V2216-P-C1-M	V2216-P-C1 maintenance plan

V2216 ENTERPRISE

V2216 Enterprise supports up to 9999 video inputs.

Ordering Information

V2216-E	V2216 Enterprise version, supports up to 9999 video inputs
V2216-E-M	V2216-E maintenance plan
V2216-E-C1	V2216 Enterprise License, for 1 video input
V2216-E-C1-M	V2216-E-C1 maintenance plan

Optional Accessories

Hardware:

V2392-D1	Desktop PC and monitor station
V2216-R400WE	Network video management server, with Windows Server 2008 and SP2 optional

Note:

As the server of SMT and NVR, V2216-R400WE series support streaming media transfer and video storage for streams of 60ch*8M, 80ch*6M, 100ch*4M and 128ch*2M. It supports a transfer rate of up to 512Mbps.

System requirements

Recommended PC Configuration for Clients (LMC / NCT)

CPU	Intel®Core™ i7-2600 CPU @3.40GHz, 3.40GHz
Nominal CPU Frequency	≥ 2.83 GHz
Memory	≥ 4G
Network Adapter	1000Mbps, Ethernet
Display Card	≥ 256M (display memory)
Operating System	Windows XP/7, supports Chinese and English versions

Recommended PC Configuration for Servers of CMS/SMT/NVR (Professional Version)

CPU	Intel® Xeon® E3 1200 series or above
Nominal CPU Frequency	≥ 3.0GHz
Memory	4G
Network Adapter	≥ 2000Mbps, Ethernet
Operating System:	Windows 2003 Server/2008 Server, supports Chinese and English versions

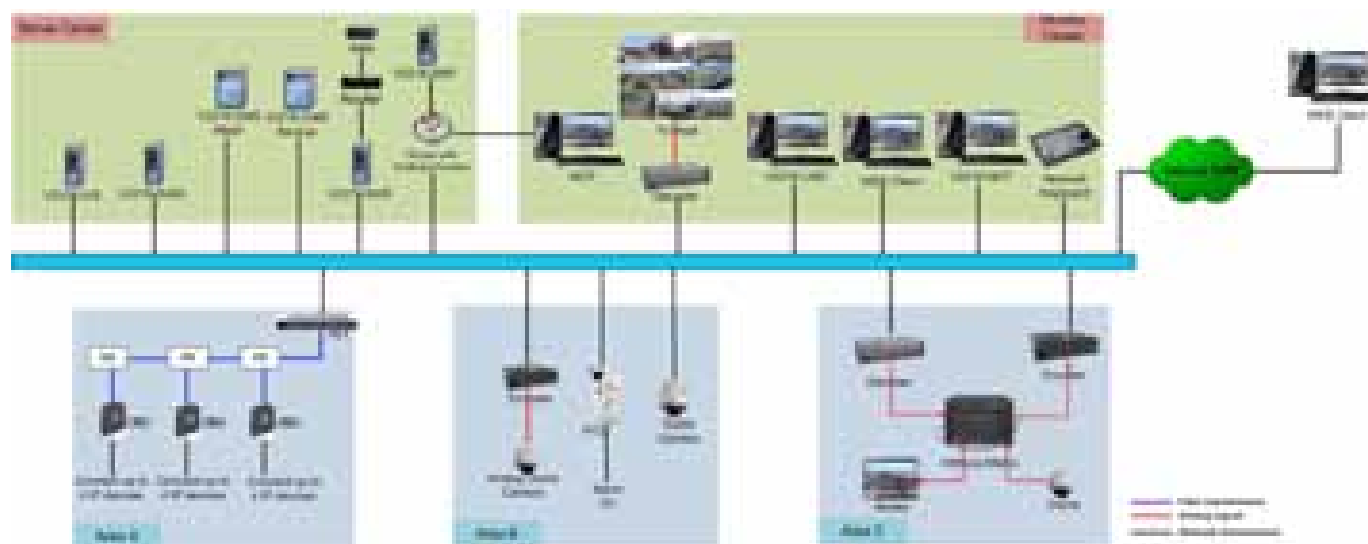
Recommended PC Configuration for Servers of CMS/SMT/NVR (Enterprise Version)

CMS	
Nominal CPU Frequency	≥ 2.4 GHz
Memory	2G
Network Adapter	1000Mbps, Ethernet
Operating System	Windows 2003 Server/2008 Server, supports Chinese and English versions

SMT/NVR	
CPU	Intel® Xeon® E3 1200 series or above
Nominal CPU Frequency	≥ 3.0 GHz
Memory	4G
Network Adapter	≥2000Mbps, Ethernet
Operating System:	Windows 2003 Server/2008 Server, supports Chinese and English versions

Note: it is strongly recommended to install CMS in a separate server, and install SMT and NVR in the same server. Multiple suits of SMT/NVR can be installed if there are many surveillance sites.

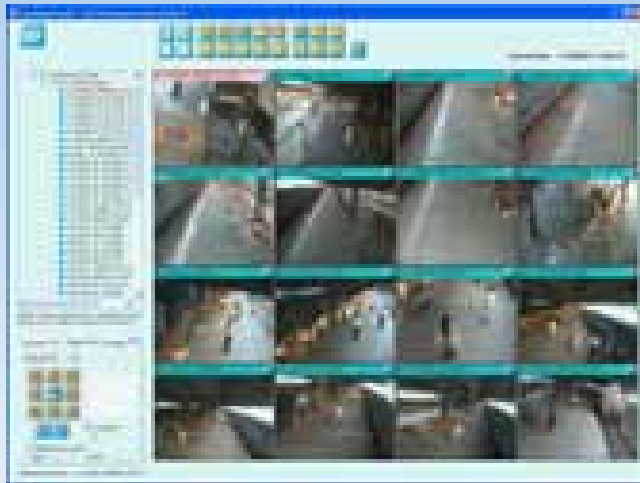
Typical system application diagram



V2217 Series

Intelligent Video Management Software

Infinova[®]
The Integrator's Manufacturer



- **Feature-rich yet cost-effective solution**
- **Software based video management System**
- **Manages external devices along with video sources**
- **Supports wide range of video sources and external devices**
- **Highly optimized system which can manage thousands of video sources and external devices**
- **Runs on industry standard hardware and network components, no custom hardware requirements**
- **Supports virtual machines and virtualization platforms**
- **Supports wide range of storage devices**
- **Option for project specific customizations**

Simultaneous Functioning

- Recording
- Alarms handling
- Client software request handling
- Live view
- Camera control
- Map view
- Video analytics
- Playback
- Configuration
- Report generation
- Failover management
- Redundant recording

Video Input

- Hybrid solution which supports analog video as well as IP video
- Video capture from wide range of IP video sources – video cameras, video encoders, video servers
- Video capture from analog cameras through wide range of video capture devices – PCI video capture cards, USB video capture cards, video capture cards supporting on-board video compression
- Video capture from DVRs
- Supports video sources compliant with ONVIF specifications
- H.264, MPEG4, MJPEG, MxPEG formats
- Mega pixel (up to 10 megapixels) cameras
- IR / thermal cameras
- Fixed cameras and PTZ cameras
- 360 degree / fish-eye cameras
- Built in video capture algorithms to minimize the bandwidth usage
- Independent FPS, resolution and bit rate settings for display stream, recording stream and video analytics stream
- Auto search / camera discovery for IP video devices
- Auto search digitized inputs from analog cameras
- Add multiple cameras, with a single button click
- Edit video capture settings for multiple cameras, with a single button click
- Add linked cameras from a single video source (like video server or DVR), with a single button click
- Recommended settings guidance for each type of video source while adding cameras
- Capture and record audio stream
- Optional GPS co-ordinate specification for every camera
- User configurable 'Channel name' for every camera
- Y-flip video to manage difference in co-ordinate systems
- Automatic restore of video connection
- Flexible architecture to quickly integrate any new cameras

Multi-stream Cameras

- Advanced algorithms for optimized handling of multiple streams from cameras
- Flexible stream selection options which assist in designing the solution, exactly as per the project requirements
- Selection of 2 streams for live video display. Best stream for each display operation is intelligently selected by the software, to keep resource utilization to minimal
- Selection of recording stream for every camera
- Selection of stream for motion detection and video analytics processing for every camera
- Selection of stream for live video display on mobile clients

360 Degree Cameras

- Full support for 360 degree panoramic view cameras (and 360 degree lenses)
- Client side (display time) de-warping of fish-eye streams for live video as well as recorded video
- Complete control on de-warping parameters like camera mounting type, de-warping mode (fish-eye, virtual PTZ, half panorama, full panorama etc), image parameters (brightness, contrast etc)
- Virtual PTZ control for de-warped video streams
- Interactive virtual PTZ on de-warped streams using mouse
- Capture different channels directly from 360 degree camera – fish-eye stream, virtual PTZ stream, half panorama, full panorama etc, if camera supports these channels

- Independently record one or more channels captured from a 360 degree camera, with independent recording configuration for each channel
- Seamless PTZ control on channels which support PTZ operations
- Independent PTZ control for each channel
- Multiple video resolution streams capture for each channel – to work with optimization algorithms
- Automatic linking of channels from a 360 degree camera
- Configure name for each linked group of channels
- Single click operation to switch to any of the linked channels

Video Sequences

- A video sequence defines list of cameras and dwell time for each camera
- During display of a video sequence, the list of cameras is iterated cyclically, each camera being displayed for the specified dwell time
- No limit on number of video sequences which can be defined
- Video sequences can be defined in the server software, and are available for all connected clients, based on the privilege definitions
- Local video sequences can be defined in client software
- All defined video sequences are available in the tree controls associated with various screens. Video sequences can be viewed using normal drag and drop operation
- Optimized processing of video sequences, to use minimal resources

External Devices

- Manage external devices like – access control cards, motion sensors, fire alarms, fence control devices, zone controllers etc
- Support for TCP/IP MODBUS communication
- Primary and secondary videos association with external devices
- Provides video evidence for alerts and logs generated by external devices
- Alarm capture from connected external devices
- Full alarm handling configuration for alarms captured from connected external devices, similar to internal alarms generated from the software
- Flexible architecture to quickly integrate any new external device

Audio Devices

- Ability to add independent audio devices
- Audio data captured from audio devices is recorded independently
- Recorded audio data can be played back, synchronized in time, with video devices and audio streams associated with video sources

Device Groups

- One or more device groups can be defined to associate related devices together.
- All defined device groups are available in the tree controls associated with various screens, as a single node and all devices added to that device group as sub-nodes
- 'Exclusive device selection' option to easily define device groups with no devices included in more than one group
- 'All devices' device group is available by default and includes all devices
- Device groups are used for user privilege assignments
- Device groups can be used for categorizing devices displayed in the tree controls, associated with various screens.

Type of Alarms

- Network loss
- Network recovery
- Video loss
- Video recovery
- Low disk space
- Disk space recovery
- Recording failure
- Recording restored
- Motion detected
- No motion
- Camera tampering detection
- Video Analytics alarms
- Alerts generated by the cameras and video servers
- Alerts generated by the integrated external devices like access control systems, fence control systems etc
- External digital alarm input
- Alarms from relay devices
- Alarms from devices supporting MODBUS protocol

Alarms Management

- User configurable alarm handling for each type of alarm
- Alarm handling rules to configure alarm handling for specific type of alarm generated from each device independently. Provides completely flexibility to configure alarm handling for each type of alarm, and to customize alarm handling for alarm generated by a specific device
- Alarms stacking / queuing
- Alarm categories – Logs, Warnings and Alerts
- User configurable colors for alarm categories. Alarms list uses these colors to indicate alarm category
- Advanced alarm acknowledgement screen displaying active alarms queue, displaying live video and alarm videos associated with each of the alarms in the queue. Quick access to multi-channel playback and video export associated with search results
- Dedicated recent alarms screen, with support for alarm video view with navigation controls. Quick access to multi-channel playback and video export associated with search results
- User configurable 'Alarm name' definition for specific type of alarms generated from specific devices. This allows operators to understand an alarm more clearly and also improves the alarm reports output.
- Wide range of alarm handling options configurable for each type of alarm from individual sources
- Video overlay indicator
- Pop up alarm acknowledge window
- Manual alarm acknowledgement
- Time threshold based automatic alarm acknowledgement
- An alarm can be acknowledged from any computer which displays the alarm acknowledgement for that alarm. Acknowledged alarm is then removed from the active alarms list of all computers
- Play sound / audio
- Indicators on map – blinking icons or alarm indication on videos embedded in map
- Start multi-channel recording
- Move one or more PTZ cameras to pre-defined presets
- Start pre-defined tours for one or more PTZ cameras
- Send digital output signal
- Pop up live video screen

- Pop up preconfigured video screen
- Send e-mail – through standard SMTP server or Microsoft Exchange Server
- Save image
- Execute user defined macros
- Send to FTP
- Send SMS – through 'Phone network gateway' application
- Initiate phone call – through 'Phone network gateway' application
- Publish as RSS feed, with options to configure the alarms to be included in the RSS feed response
- Generate test alarms for quick tests of alarm handling configurations

Motion detection

- Seamless integration of motion detection results available from cameras
- Motion detection processing from application
- Independent motion detection settings for every camera
- 'Motion detected' and 'No motion' alarms to indicate start of motion and end of motion
- Advanced motion detection algorithm with high accuracy and low resource utilization
- Record on motion
- Motion detection meta-date overlay on videos with configuration for overlay level – no overlay, only motion indicator, motion grids, full overlay
- Option to exclude motion detection alarms from alarms database entries



Video Analytics

- Video analytics on IR cameras and thermal cameras
- Support for video analytics on PTZ cameras, while the camera is in 'Home' position. Video analytics is automatically disabled when camera moves from the home position and video analytics is automatically started when camera is moved back to home position
- Seamless integration of video analytics module as video analytics is not a separate software application. No manual synchronization and maintenance is needed
- Dedicated video analytics screen to display analyzed videos from multiple cameras, with analytics meta-data overlay. Quick access to video analytics settings for each camera
- Independent video analytics settings for every camera
- Easy to manage, tightly integrated simple user interface
- Enhanced algorithms which need only few parameters to be configured to get good results from video analytics in most of the deployment situations. Advanced parameters are available, to handle special situations
- Local or remote processing of video analytics
- Availability of wide range of standard analytics features
- Intrusion detection
- Wrong direction movement, detection
- Line crossing / trip-wire
- Camera tamper / scene change detection
- Crowd detection
- Un-attended object detection
- Queue length detection
- Asset protection
- Loitering detection
- Tailgating detection
- Object stopped detection
- People counting, Vehicles counting
- Object trace / travel path
- Object speed calculation
- Digital auto-tracking
- Vibration removal
- Flexible architecture to quickly support customized video analytics features
- Option of project specific combined analytics on data generated by multiple external devices and video streams
- Option to use 3rd party video analytics libraries using their SDKs

Recording

- User configurable video resolution, frame-rate and bit-rate setting for each channel independent of other channels
- Ability to configure recording settings for a video channel group, with a single button click
- Multiple recording modes – continuous, scheduled, alarm-based, combined 'scheduled and alarm based'
- Scheduled recording – weekly schedule configuration with ability to select or de-select any hour within a week for recording
- Scheduled recording – with day specific over-rides for up to 5 dates. The original weekly schedule remains unchanged, which eliminates the risk of accidental changes and eliminate maintenance activities.
- Pre-event and post-event recording up to 99 minutes
- Option for full FPS recording on alarm, and low FPS recording in non-alarm conditions, with pre-alarm and post-alarm period configuration up to 99 minutes
- Operator activated recording

- Audio stream recording
- Video overlay text
- Available disk space and expected recording time indicators
- Recording history timeline
- Watermarking on recorded video
- Recorded data tampering detection
- Automatic storage space recycling, with user configuration for finer control on the recycling process
- User configurable thresholds for – 'recycle start threshold', 'recycle stop threshold' and 'low disk space alarm threshold'
- Option to exclude data associated with alarms, during recycling operations
- Network time server synchronization
- Multiple drives selection for recording
- All selected drives are used for recording simultaneously, to distribute the load. Each drive is processed independently
- Intelligent allocation of video channels to recording drives, to distribute the load and to maximize the recording duration for all cameras
- Manual over-ride for recording drive selection for any camera
- Ability to re-assign recording drives for all cameras, at any stage
- Supports recording on local hard disks, USB storages, Direct-attached Storage (DAS), Network-attached storage (NAS), Storage Area Networks (SAN)
- Supports iSCSI
- Supports network shared drives
- Supports RAID configured storage devices
- Fail-over recording with fully automatic data synchronization
- Redundant recording
- Option to use recorded data from video source (e.g. DVRs), and not recording it locally, to save bandwidth and storage space

Video Search

- Recorded data report for specified camera
- Any camera can be selected from the drop down menu
- Calendar displaying recorded data availability state for each day – full data available, no data available, partial data available
- Recording history timeline indicator
- 24 hour video history timeline indicating time periods for which recorded data is available
- Video timeline focus indicator – with option to select focus duration interval. Quick access next interval and previous interval buttons
- Video timeline with 1 second interval indicating recorded video availability for each second
- Video playback synchronized with timeline indicators
- Option to use original aspect ratio for video display
- Click on recording history timeline to view associated video, with video navigation control – play, pause, rewind, fast forward, slow rewind, slow forward
- Indication on timelines for currently displayed video time
- Quick access to multi-channel playback and video export
- Automated recording history cache creation for fast access to recording history information
- Option to manually re-create recording history cache for specified camera for specified duration

Playback

- Synchronized playback of multiple video channels, up to 64 video channels
- Synchronized audio playback with ability to enable / disable audio playback associated with every video channel being played back
- Video navigation - play, pause, up to 16X fast forward and up to 16X rewind
- Slow speed playback – fast forward and rewind, up to 0.25X
- Alarm based playback
- 'Go-to' specified video time
- Frame by frame playback – previous frame and next frame
- Non-synchronized playback screen – where each video can be played for independent video times

Video View Screens

- Separate live video screens and playback video screens
- Tree view of video channels, sequences, external devices
- Automatic linking of video channels from same video source
- Single click operation to switch to any of the linked channels
- Device groups
- Indicators for state of cameras and devices – online / offline
- Indicators for static cameras and PTZ cameras
- Indicators for recording status of every channel – recording on, recording off, recording error
- Drag and drop camera selection for viewing
- Double click on tree control item to view video
- Camera selection modes – locked and un-locked. In un-locked mode first empty video container is selected for displaying the video
- Virtual matrix operations
- Patrolling mode
- Several screen layout options e.g. 1X1, 2X2, 3X3, 3X4, 4X4, 5X5, 5X6, 6X6, 7X7, 8X8, 1+5, 1+7, 1+9, 1+11, 1+12, 1+15, 1+16
- Page navigation within a layout
- Multiple video view screens (up to 14)
- Independent control of video view screen size and position on the monitors
- Independent layout settings for each video screen
- View up to 144 live videos and up to 64 playback videos in single video screen
- Option to maintain aspect ratio of the video stream during display (Display square pixels)
- 'Hide user interface' / 'view videos only' mode
- Instant replay with user configurable instant replay time
- Compact layout button
- Time indication – current time and video time
- Quick access toolbar for each video window
- Several video overlay options with text font and color configuration support
- Advanced algorithms to use multiple video resolution streams from video sources for minimum resource utilization
- Double click to view high resolution video
- Option to initialize the high resolution video window with currently displayed video stream, till high resolution video stream is available from the server / camera
- High resolution video window size control – full screen or user defined size
- Right click menu on each video for quick access to various features
- Image snapshot from live video and playback video

- Copy image to clipboard
- Add video bookmark
- Single click video export
- Single click video export for all videos displayed in the video screen
- Y-flip video control for every video
- Quick switch to linked channel
- Single click 'close all videos'
- On-screen camera PTZ control using mouse
- Camera PTZ control window which can be moved to any desired location on the monitor
- Recording history calendar with access to video search screen
- Quick access to video source information
- Quick access to digital operation configuration
- Quick access to camera PTZ, preset and tours control
- Multiple monitors support
- Option to select hardware acceleration for video display operations



Video Overlay Options

- Video overlay text color configuration
- Camera name overlay
- Timestamp overlay
- Camera IP address overlay
- Bandwidth usage overlay
- Video resolution overlay
- Video frame rate overlay
- Recording state indicator overlay
- Audio play state indicator overlay
- Video loss indication
- Audio loss indication
- Server disconnection indication
- Motion detection overlay with configuration for overlay level – no overlay, only motion indicator, motion grids, full overlay

Video Screen Layout Profiles

- Layout profiles to configure different layouts on a single screen
- Layout profiles include the layout grid selection and camera selection for every video container
- Single click switching between layout profiles
- No limit on number of layout profiles that can be defined
- Layout profile sequences to change layout profile automatically after 'dwell time'
- Cyclic operation in layout profile sequence
- Pause layout profile sequence
- Move to next layout profile in the sequence

- Move to previous layout profile in the sequence
- No limit on number of layout profile sequences that can be defined

Video Panorama (Video Stitching)

- Defining relative arrangement of videos from multiple cameras, to get a single stitched video view
- Simple configuration with 2 point association. Advanced algorithm to arrange the video orientation based on 2 point association input from user
- Video panorama for live video as well as for playback video
- Full video navigation control for panorama – play, pause, fast forward, rewind, slow forward, slow rewind
- Instant replay for panorama

Camera Control

- Camera pan tilt zoom control
- Camera PTZ speed control
- Camera PTZ – auto zoom. User can select a rectangle and camera is zoomed to show the video for the selected rectangle
- PTZ priority setting for users, with PTZ lock time. Locks camera PTZ access for next user if another user with higher priority is controlling camera PTZ
- Move PTZ camera to home position
- On-screen camera PTZ using mouse
- Camera PTZ control window which can be moved to any desired location on the monitor
- Camera PTZ mode selection – manual or automatic, for cameras which support camera PTZ mode selection feature
- Iris control
- Focus control
- Image parameters control – color / black and white video, brightness, saturation, contrast, sharpness, hue
- Presets – add, remove, go-to
- Preset image capture and display for better indication of camera position in that preset
- Tours – add, modify, start, stop
- Tour configuration by specifying presets and dwell time
- Unlimited presets can be added to a tour
- Configure video stream parameters for every video channel independently
- Configure video stream parameters for a video channel group, with a single button click
- Configure on-screen display parameters for a video channel group, with a single button click
- Configure camera time for a video channel group, with a single button click
- Import camera names defined inside video sources to VMS; for a video channel group, with a single button click
- Export camera names defined inside VMS to individual video sources; for a video channel group, with a single button click

CCTV Keyboards and Joysticks

- Supports all standard USB joysticks and gaming controllers which are compliant with Microsoft Windows operating system
- Zoom direction configuration (zoom in and zoom out) with respect to joystick clock-wise or anti-clock-wise rotation, for uniform user experience independent of make and model of the joystick controller
- Supports CCTV keyboards

- Open platform architecture allows quickly supporting any new custom CCTV keyboard or Joystick
- Video screen selection
- Video camera selection in the selected video screen
- PTZ control of the selected video camera
- Communication status logs to assist during initial set up and maintenance

Digital Operations

- Digital PTZ
- On-screen digital PTZ using mouse
- Switch to home position (full video display) for digital PTZ
- Digital PTZ speed control
- Digital PTZ on paused video
- Magnification glass with zoom and size control
- Interactive digital PTZ using mouse controls
- Digital PTZ – auto zoom. User can select a rectangle and display is zoomed to show the video portion from the selected rectangle
- Digital auto-tracking. An object in the video is tracked by digitally zooming on it and continuously following it.
- Vibration removal
- Display-time (client-side) de-warping for 360 degree cameras

Users and Privileges

- Multiple user levels and privileges
- Built in standard privileges
- Ability to define custom privileges
- Ability to allow or dis-allow features for every custom privilege
- Ability to allow or dis-allow device group access for every custom privilege
- Built in standard uses
- Ability to define custom users
- Unlimited number of users can be added
- Ability to associate / change privilege for any user
- Unlimited number of users can be associated with a privilege
- Ability to disable a user. Ability to delete a user
- Administrator control to change password for any user
- User information registration e.g. name, address, phone number etc
- Active Directory integration

Video Export

- Quick export mode – starts video export for selected camera and continues till user ends the playback. Default video export parameters are used for quick export mode
- Advanced export mode – with all export parameters available for user configuration
- Video export based on time duration or alarm
- Export video for multiple cameras simultaneously
- Option for watermarking on exported video – custom text, camera name, timestamp; with option to set watermark text color
- Option to specify file name for exported video
- Standard format video export, exported video can be played in any standard media player like Windows Media Player
- Option to select the quality of video exported in standard format – high quality and standard quality. This also allows controlling the file size of the exported video file
- Native format video export along with player application

- Option to add password protection for native video export. The exported native video can be accessed only after providing correct password

Video Bookmarks

- Operators can quickly bookmark video from any camera, for a specific time-stamp, along with a comment
- Video bookmarks search to generate reports
- Search video bookmarks based on bookmark source, bookmark creator user, bookmark comment (with wild card search) and time duration
- Video bookmark search - bookmark video display with video navigation controls for play, pause, fast forward, rewind, slow play and slow rewind
- Video bookmark search - quick access to multi-channel playback and video export



Reports and Logs

- Current session logs view
- Current session alarms view
- Detailed user logs, activity reports, system logs
- Search user logs to generate reports
- User logs search based on user and time duration
- Report includes details like activity description, along with IP address of the computer which initiated the activity
- Alarms search to generate alarm reports
- Search alarms based on alarm type, alarm source, alarm name (with wild card search) and time duration
- Alarm search - alarm video display with video navigation controls
- Alarm search - quick access to multi-channel playback and video export associated with search results
- Export video for all alarms in the search result, with a single button click
- Print logs and reports
- Save logs and reports in TXT, CSV or PDF formats
- PDF format reports include associated images embedded inside PDF file
- Automated daily reports creation and save
- Automated daily reports e-mailing
- Print images
- Video bookmarks search to generate reports
- Search video bookmarks based on bookmark source, bookmark creator user, bookmark comment (with wild card search) and time duration
- Video bookmark search - bookmark video display with video navigation controls
- Video bookmark search - quick access to multi-channel playback and video export associated with search results

Status reports

- Detailed status reports which indicate system state
- 'Save report' option for all status reports displayed in the software. These saved reports are useful in offline custom analysis of the site.
- Video channel availability – online / offline status for all streams from each of the video channels
- Recording status for all channels
- Video analytics status for all channels
- Bandwidth utilization status for all streams from each of the video channels
- Storage space utilization graph – view by video channel and time interval
- Video stream parameters – resolution, FPS, bitrate etc for all streams from each of the channels
- User configurable parameters summary for all channels
- List of current client requests being processed by the server
- Phone network gateway communication status
- CCTV Keyboards and joysticks communication status

Interactive Maps

- Multiple map view screens
- Multi-level maps with hyperlinks for quick navigation between levels
- Static image maps – support industry standard image formats like BMP and JPEG
- Multiple image support
- Dynamic maps – Google Maps and Openstreet Maps
- Tree view of cameras and devices
- Drag and drop camera, device and video sequence selection
- Camera and device indicators on map
- Alarm indication on map
- Embedded live video display of multiple channels and sequences on map
- Option for high resolution video view for any camera
- Option to send camera video to predefined video screen, which can be resized and positioned anywhere
- Field of view configuration for each camera – direction, angle, range
- User configurable map overlay indicators – static camera, PTZ camera, map link, video sequences, external devices
- User configurable map overlay text – font, color, background color
- User configurable camera field of view indication for each camera – on/off, color, fill mode
- Privilege function to enable / disable map settings configuration for a logged in user
- 'Lock settings' mode to test camera configuration, as an operator with no access to map settings
- Export map configuration to server as a map configuration template
- Import map configuration template from server, for quick synchronization of map settings between multiple clients
- 'Hide user interface' mode
- Digital PTZ for map image
- Interactive digital PTZ on map image using mouse, with PTZ speed control
- Map location presets – add, edit, go-to
- Combining multi-level maps and map location presets, provides complete flexibility to define quick links to map view of any target region.

Surveillance Tasks

- Ability to configure one or more surveillance tasks which are performed as per the configured schedule
- Independent schedule configuration for every task. Schedule can be set as daily or weekly
- One or more surveillance tasks can be configured for same camera

User Interface

- Multiple monitors and video walls support
- Virtual matrix operations
- Video thumbnail display to identify the specified camera
- Full screen view of any video channel
- Quick set up wizard for easy initial configuration
- All screens can be resized to custom sizes
- Single click 'Fit to screen size' support for all screens
- Simultaneous functioning of all features
- View video channels as a list or as thumbnails
- 'Reconnect to all cameras' button
- 'Save report' option for all lists displayed in the software. These saved reports are useful in offline custom analysis of the site.
- 'Lock server' to restrict un-authorized changes to server configuration
- Tree control displaying list of devices, also indicates the device state – online / offline, recording ok / recording error, PTZ camera / fixed camera. Different images are displayed for each of these states for all devices listed in the tree control

Multi-Language Support

- Supports multiple languages
- Advanced internationalization framework, to quickly support a new language
- Supported languages – Arabic, Bengali, Bulgarian, Catalan, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Filipino, Finnish, French, German, Greek, Haitian, Creole, Hebrew, Hindi, Hmong Daw, Hungarian, Indonesian, Irish, Italian, Japanese, Kannada, Korean, Latvian, Lithuanian, Marathi, Norwegian, Persian(Farsi), Polish, Portuguese, Portuguese(Brazil), Romanian, Russian, Slovak, Slovenian, Spanish, Swahili, Swedish, Tamil, Telugu, Thai, Turkish, Ukrainian, Vietnamese

Data Management

- Archiving or deleting older recorded data
- Manual data clean up
- Scheduled data clean up, with support for daily, weekly or monthly schedule and cleaning up data older than specified number of days
- Manual data archiving
- Scheduled data archiving, with support for daily, weekly or monthly schedule and cleaning up data older than specified number of days
- Video player application is available along with the archived data for accessing archived data
- Offline data viewer screen for accessing archived data
- Option to exclude data associated with alarms, from clean up and archive operations
- Automatic storage space recycling, with user configuration for finer control on the recycling process
- User configurable thresholds for – 'recycle start threshold', 'recycle stop threshold' and 'low disk space alarm threshold'
- Option to exclude data associated with alarms, during recycling

operations

- User activity logs recycling, with user configurable options to control the recycling process

Network Configuration

- Support for configuring 3 types of networks as completely independent networks – input network, output network and storage network; to allow fully flexible network design
- Input network is network connecting cameras and the server computer, Output network is the network connecting the server computer and the client computer(s), Storage network is the network connecting the server computer and the storage device(s)
- Allows keeping input network completely free of network bandwidth utilization fluctuations due to client connections. Input network always has calculated network utilization and ensures reliable video capture from cameras.
- Allows keeping storage network completely free of network bandwidth utilization fluctuations due to client connections. Storage network always has calculated network utilization and ensures reliable data storage
- User configurable IP address selection for input network and output network
- If IP address is not available / valid, when server software is executed; it automatically switches to the available IP address, and gives notification



Fail-safe Operation

- Watchdog to continuously monitor application health
- Automatic saving all settings including user interface settings, screen sizes, screen location across multiple monitors
- Automatic full system restore after unexpected events like power loss
- System diagnostics parameters display
- Fully distributed architecture with no single-point failure
- Automatic optimization to lower resource usage, after the settings are done
- One click import and export of all settings for back up or for replicating the same set up on another computer
- Failover management server
- Redundant recording server
- Automated application maintenance and computer maintenance
- Designed to work 24X7 without requiring human inputs

Client Applications

- Standard server-client architecture
- Encrypted data communication between server and clients
- Support for port forwarding to support remote clients, when server computer is behind NAT
- User configurable 'Site name' to easily identify each site / server
- Automatic time synchronization with server computer
- Windows PC client for operator workstations
- Integrated web server which supports HTTP client – support for standard browsers Internet Explorer, Mozilla FireFox, Google Chrome, Apple Safari
- Smart Phone client, with real time alert notification with sound alarm, and ability to view alert camera video
- Support for Apple Safari browser on iPhone and iPad, as HTTP client
- Settings to control video quality and bandwidth utilization for HTTP client and Smart Phone client video requests

Workstation Client Application

- Windows PC client application for operator workstations, which supports full operator features like viewing, browsing, report generation
- Connect to server using IP address or server computer domain name
- Can connect to server software running on a computer in same network as client computer
- Can connect to server software running on a computer which is behind NAT and available through port forwarding
- Client software can be download from server URL
- Automatic version check and client software version upgrade, if required
- 'Site book' feature which can list multiple servers with the connection information. Without typing complete connection information every time, client can quickly connect to a server available in the site book
- Multi-site monitor - connect to multiple servers and view combined data
- Simultaneously view live videos from multiple servers
- Simultaneously view time synchronized playback videos from multiple servers
- Automatic time synchronization between multiple connected server computers
- Quick configuration wizard for one time configurations
- Multiple screens concept which includes one main screen and

optional one or more additional screens

- Main screen has compact user interface, including tree control listing all devices, camera control console, video display layout, alarms history list, alarm acknowledgement console and menus to access various client functions
- Option to set main screen as live video screen or playback video screen
- Alarms history list supports right click menus to quickly export alarm video, to display alarm video in playback video screen, to clear alarms list
- Supports multiple monitors
- Ability to configure number of live video screens, number of playback video screens, number of map screens, maximum number of cameras in a live screen and maximum number of cameras in a playback screen – to control resources utilization and restricting operators for performing operations which may affect resource utilization
- Client specific CCTV keyboard and joystick configurations
- Client specific alarms handling configuration
- Option to reset server features and server application from client application, if privileges are available for the user logged in to the client application

Failover Management

- Failover management server which can monitor one or more main servers – supports 1:1 failover configuration and 1:N failover configuration
- Fully automated failover operations, no human inputs are needed after one time failover management configuration is done
- Automated VMS configurations synchronization between failover server and main servers
- When one of the monitored main server fails, processing is switched to the failover management server
- Client applications are redirected to failover server automatically
- When main server is online, processing is switched back to main server. Failover server starts monitoring all the main servers again
- Client applications are redirected to main server automatically
- Data recorded during failover processing is synchronized with main server automatically; with best possible bandwidth utilization for the synchronization operation to ensure primary VMS activities are not affected
- Failover management server can be configured in 2 modes – shared storage and non-shared storage
- In case of shared-storage, the physical location of the storage is shared between the failover server and the main server, hence no data synchronization is needed after failover processing cycle
- Some of the storage devices do not support shared access to the storage space from 2 computers. Non-shared storage mode is used in these cases

Redundant Recording

- Redundant recording server can be associated with every main server
- Fully automated redundant recording operations, no human inputs are needed after one time configuration is done
- Automated VMS configurations synchronization between redundant recording server and main server

- Redundant recording server replicates the main server and runs as a copy of main server and ensures that copy of recording is available all the time

Calculators and Tools

- Storage space calculator
- Storage throughput test application
- Bandwidth requirement calculator
- Network throughput test application
- Computer resource monitoring and reporting tool
- Camera ping / availability test tool
- Camera parameters manager tool
- VMS health check and reporting tool
- VMS resource configuration manager tool
- Diagnostic check tool, with auto repair functionality

Quick and Smooth Deployments

- Simplest and fool-proof software installation, with all dependencies automatically detected and communicated to the user
- No external software dependency, hence no synchronization and maintenance for external softwares
- Integrated single server application which includes all components – video management, hybrid NVR/DVR, video analytics, video streamer and gateway
- Simple and intuitive user interface
- Advanced user interface options to fulfill deployment site specific requirements
- Minimal learning curve for first time users. No formal training required
- Quick configuration wizards
- System notifications window which indicates warning and errors for situations which need attention. Some notifications are user acknowledgeable and some are not. Notifications are automatically removed when warning / error condition is resolved
- Computer resources monitoring and reports generation in form of graphs and tables.
- Resource monitoring includes total CPU utilization, CPU core utilization for all cores, memory utilization, network utilization, hard disk utilization, number of threads, number of handles, number of GDI objects, CPU utilization by the VMS application, hard disk space
- Advanced resource utilization fine tuning options to handle all deployment situations
- Advanced background operations priority configuration options, to ensure main VMS operations always get highest priority and have required resources available all the time
- Diagnostic check tool which analyzes the software configuration, computer configuring and complete system, to suggest possible improvements
- Automated application maintenance and computer maintenance
- Automated daily back up of configuration, on storage drive

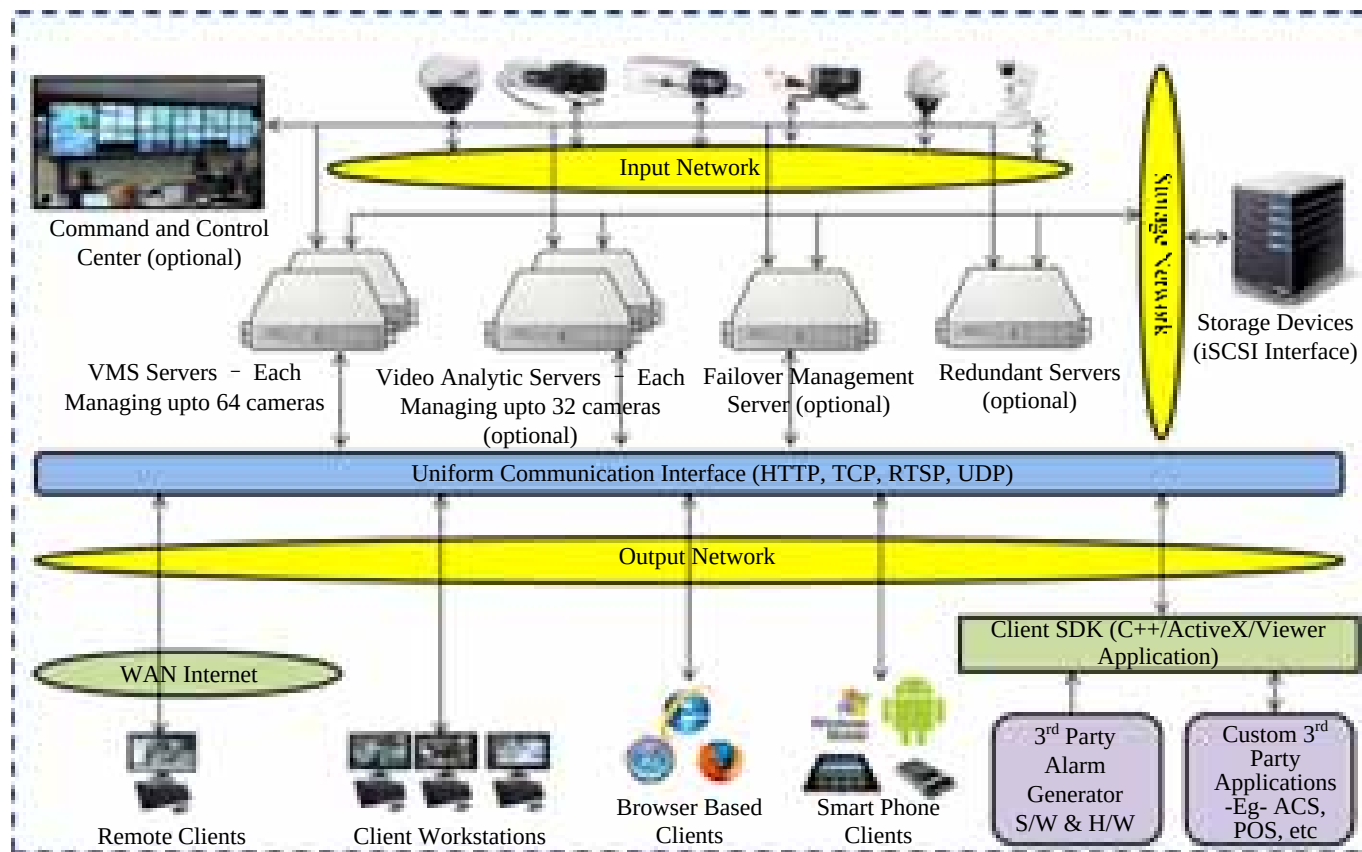
Integration & SDK

- Security management System Client SDK - for other software systems to communicate with VMS. This SDK can be used to create a full featured customized client software
- Security management System Client SDK versions – OCX SDK and C++ SDK
- OCX SDK provides ActiveX control which can be embedded in any Windows application including .Net applications, native VC++ applications, web pages etc for quick integration and video access from external systems
- Basic functional integration using OCX SDK requires calling only 1 method from ActiveX control, hence integration can be realized very quickly. Based on the calling application's requirements, other methods can be integrated for further control of the ActiveX
- Security management System Alarm Communication SDK - for integrating external devices. The external device manufacturer can use this SDK to send alarms to the VMS
- Security management System Image Access API – to query live or recorded image from any camera available in the Security management System
- Security management System XML Based Alarm Communication API - for integrating external devices. The external manufacturer can use this SDK to send alarms to the VMS
- Security management System Remote Configuration SDK

Hardware Requirements

- Minimum hardware requirement for server software – Intel P4 processor, 2GB RAM, 200 GB hard disk space for 32 channels system
 - Minimum hardware requirement for client software – Intel P4 processor, 2GB RAM, 1GB graphics card, 200 GB hard disk space for 32 channels system.
 - Operating System – Windows XP (SP3), Windows Vista, Windows 7, Windows 8, Windows Server 2003, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012
- Supports both 32 bit and 64 bit Windows OS versions

VMS Architecture



- Open platform system
- Fully distributed architecture
- Integrated single server application which includes all components – video management, hybrid NVR/DVR, video analytics, video streamer and gateway
- No single point failure. System continues to function even if all other servers go offline and single server is active
- Built-in video analytics module with seamless user interface
- Advanced algorithms to use multiple resolution streams supported by the cameras for automated system optimization and minimum resource utilization
- Optimized for multi core processors
- Scalable and expandable architecture. Cameras, server and clients can be added without affecting existing functional system.
- Fully backward compatible software upgrades

V3070-8 Series

Network Video Recorder

Infinova[®]
The Integrator's Manufacturer



- **H.264 high quality decoding**
- **Up to 16-ch D1/720P/1080P video recording**
- **IP channel supports protocols self-defined**
- **1 VGA and 1 HDMI HD video outputs, supporting synchronizing VGA/HDMI outputs**
- **16-ch D1/720P or 8-ch 1080P videos simultaneous playback**
- **Digital zoom in live view and playback**
- **Support for searching, playback and backup of the videos based on events**
- **Support for images local playback and searching**
- **Audios and alarms**
- **Functions of user management, storage, network monitoring, multi-screen display mode**
- **Transparent Transmission interfaces like RS232 (RS-422), RS485 (RS-485)**
- **Remote NVR configuration and priority management via Ethernet**
- **Records stored to defined devices or memory**
- **8 SATA interfaces, up to 32TB**
- **Flexible backup via network, USB2.0 or eSATA interfaces**

V3070-8 series are high performance Network Digital Video Recorders (NVR). The NVR features local preview, video multi-screen display, and real-time local storage of the records. The NVR supports easy operations via mouse and tele-controller, with remote management and control functions.

V3070-8 supports both centralized and distributed storage deployments. The front-end monitoring points can be at any places in the network, without area limitations. The NVR, networking with other front-end cameras, network video servers and with the assistance of professional video surveillance software, can form a powerful security surveillance system. In the network of V3070-8 series, the center and monitoring points can be connected by one network cable, no video cable, audio cable needed, which makes the installation easier, reducing the wiring and maintenance cost. V3070-8 series can be widely used in public security, water conservancy, traffic, education etc. fields.

Technical Specifications

Video

Video Compression	H.264
Decoding Capability	Maximum 16*D1/720, or 8*1080P
Video Input	16 IP compressed video inputs
Video Output	1-ch VGA analog video output
HD Media Output	1-ch HDMI video output
Multi-screen Display	1/4/8/9/16 multi-screen display
Playback	Max. 16-ch synchronous playback

Audio

Audio Compression	G.711A
Audio Input	1-ch audio input
Audio Output	1-ch audio output

Alarm

Alarm Input	16-ch alarm inputs
Alarm Output	6-ch alarm outputs; Relay output, relay (DC 30V/1A, AC 125V/0.5A (associated output)), one controllable DC +12V output

Port

RS232 Serial Port (RS-422)	1*RS232 serial port for debugging and data transparent transmission
RS485 Port (RS-485)	1*RS485 port for control of the PTZ camera control system, supporting multi-protocols
USB Port	4*external USB2.0 ports
Network Port	2*RJ45 10/100/1000Mbps Ethernet port, self-adaptive

Storage

SATA	8 built-in SATA interfaces, each up to 4TB
eSATA	1 external eSATA interface

Others

Power Switch	1 power switch, on rear panel
Power Button	1 power button, on front panel
IR Tele-control Receiving Eye	1 Infrared tele-control receiving eye, on front panel
Clock	Built-in real-time clock
Indicator	16 recording status indicators, 1 system running status indicator, 1 tele-controller indicator

Operational

Operating System	Embedded Linux operating system
System Resources	Maximum access bandwidth 160M; Maximum transfer bandwidth 128M; Support 20 users login at the same time, with each channel access time delay controlled in 500ms.
Operating Interface	WEB, GUI

Electrical

Power Input	1 power port, AC100-240V 50+2% Hz
Power Consumption	<40W (No hard disk)

Mechanical

Dimension	17.3" × 18.1" × 3.5" (440mm × 460mm × 89mm)
Weight	12.13lbs ~ 14.3lbs (5.5kg ~ 6.5kg) (No hard disk)
Mounting	Desktop

Environmental

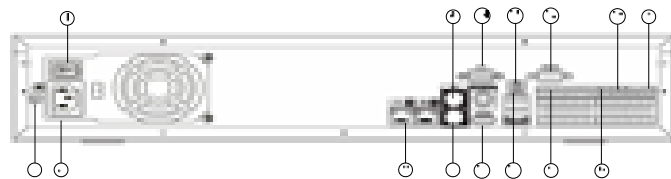
Working Temperature	32°F ~ 122 °F (0°C ~ 50°C)
Working Humidity	10% ~ 90%
Atmosphere	86kpa ~ 106kpa

Ordering Information

V3070 Series 16 Channel Network Video Recorders	
V3070-8	Embedded Network Video Recorder, Support up to 16 Channels (1080P/720P/D1) of Video Recording, No hard disks
Hard Disks Ordering Information	
V3091-2000-W	SATA HD, 2TB
V3091-3000-W	SATA HD, 3TB
V3091-4000-W	SATA HD, 4TB

Panel View

Rear Panel View



- | | |
|-----------------------------|--|
| 1. Power Switch | 9. Ethernet Port |
| 2. Power Input | 10. eSATA Port |
| 3. Audio Input | 11. USB2.0 Port |
| 4. Audio Output | 12. RS232 Serial Port |
| 5. Alarm Input | 13. HDMI Media Port |
| 6. Alarm Output | 14. VGA Video Output |
| 7. Grounding Terminal | 15. CTRL 12V (Controllable 12V Output) |
| 8. RS485 Communication Port | |

Analog Product Family

V5111-A2 & V5112-A2 Series

Electronic Day/Night & Day/Night Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" SONY HAD CCD sensor**
- **Resolution: 480 TVL**
- **Electronic Day/Night functionality (V5111-A2 series)**
- **Automatic Day/Night functionality with ICR filter (V5112-A2 series)**
- **High sensitivity, anti-blooming and S/N ratio**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Auto White Balance/Manual White Balance (ATW/MWB), Flickerless (F.L.), Backlight Compensation (BLC)**
- **Back Focus adjustment**
- **Supports both DC-Drive and VIDEO-Drive lens**
- **LEVEL adjustment**
- **12VDC/24VAC power supply**

V5111-A2 & V5112-A2 series fixed cameras feature a high resolution 1/3" SONY HAD CCD sensor. Advanced Digital Signal Processing (DSP) provides 480 TV lines of resolution and excellent S/N ratio of more than 48 dB.

The V5111-A2 series have electronic Day/Night functionality. While the V5112-A2 series have automatic Day/Night functionality thanks to built-in ICR filter. High quality images with the smallest details are available even in low light conditions. These cameras are the perfection solution for a 24x7 around-the-clock surveillance.

The V5111-A2 & V5112-A2 series cameras are made of aluminum alloy construction and have an operating temperature of 14°F ~ 122°F (-10°C ~ 50°C). These cameras are the ideal surveillance solution for shopping malls, banks, office buildings, parking lots, city streets and other applications.

Technical specifications

Image Sensor	1/3" SONY HAD CCD
Effective Pixels	NTSC: 768(H) × 494(V); PAL: 752(H) × 582(V)
Scanning System	2:1 interlacing
Resolution	480 TVL
Sensitivity	V5111-A2: Color mode: 0.5 lux @ F1.2 (30IRE, AGC ON), B/W mode: 0.3 lux @ F1.2 (30IRE, AGC ON); V5112-A2: Color mode: 0.5 lux @ F1.2 (30IRE, AGC ON), B/W mode: 0.02 lux @ F1.2 (30IRE, AGC ON)
S/N Ratio	> 48 dB (AGC OFF)
Auto Electronic Shutter	ON/OFF, NTSC: 1/60~1/100,000s, PAL: 1/50~1/100,000s
Auto Iris	DC Drive or VIDEO Drive
Lens Mount	C or CS mount (adjustable)
Gamma Correction	0.45
White Balance	ATW/MWB
Color Temperature Range	2400K~8000K
Auto Gain Control	ON/OFF
Backlight Compensation	ON/OFF

Flickerless Mode	ON/OFF, NTSC: 1/100s, PAL: 1/120s
Sync. System	Internal/ Line Lock
Video Output	1.0 Vp-p (75 Ohm), BNC connector
Power Supply	12 VDC/24 VAC
Power Consumption	V5111-A2: 4W (maximum); V5112-A2: 5W (maximum)
Operating Temperature	14° F ~ 122° F (-10° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×W×L)	2.36" x 1.97" x 5.12" (60 mm × 50 mm × 130 mm)
Box Dimensions (L×W×H)	7.28" x 4.13" x 3.78" (185 mm × 105 mm × 96 mm)
Unit Weight	0.79 lbs. (0.36 kg)
Shipping Weight	1.10 lbs. (0.50 kg)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B ² , ISO 9001:2008

Certificate No.: ¹ BCT10LC-2145E; ² BCT10LC-2146E.

Ordering information

V5111-A2004	Analog fixed camera, 1/3 inch CCD, Electronic day/night, 480TVL, NTSC, 12VDC/24VAC
V5111-A2014	Analog fixed camera, 1/3 inch CCD, Electronic day/night, 480TVL, PAL, 12VDC/24VAC
V5112-A2004	Analog fixed camera, 1/3 inch CCD, Day/night, 480TVL, NTSC, 12VDC/24VAC
V5112-A2014	Analog fixed camera, 1/3 inch CCD, Day/night, 480TVL, PAL, 12VDC/24VAC

RECOMMENDED ACCESSORIES

For V5111-A2, Vari-Focal Lenses – (Fixed and Zoom Lenses are also available)

V1122-308	Lens, f=3.0-8mm, F/1.0, DC auto iris, 1/3 inch, CS
V1122-2812	Lens, f=2.8-12mm, F/1.4, DC auto iris, 1/3 inch, CS
V1122-550	Lens, f=5-50mm, F/1.4, DC auto iris, 1/3 inch, CS

For V5112-A2, Vari-Focal IR Lenses – (Fixed and Zoom Lenses are also available)

V1132-3085	Lens, IR correction, f=3.0-8.5mm, F/1.0, DC auto iris, 1/3 inch, CS, Aspherical
V1132-2812	Lens, IR correction, f=2.8-12mm, F/1.2, DC auto iris, 1/3 inch, CS, Aspherical
V1132-7550	Lens, IR correction, f=7.5-50mm, F/1.3, DC auto iris, 1/3 inch, CS, Aspherical

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120 VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230 VAC

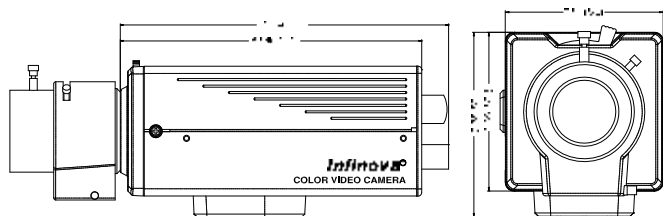
Indoor Adjustable Mounts for Ceiling and Wall

V1551-7	Fixed camera direct mount; 7 inch
V1551-10	Fixed camera direct mount; 10 inch

Indoor/Outdoor Wall Mount Housings are available

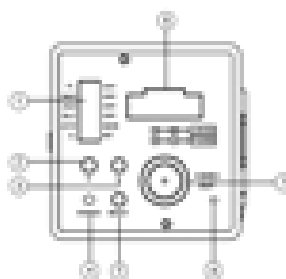
V1400 Series	Fixed Camera Housing, Optional Heater and Blower
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Dimensions



(Unit: inch, in the parentheses is mm)

Back panel

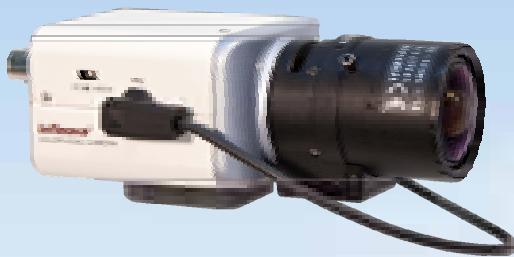


- (1) DIP Switch
- (2) Color Temperature (Red)/Phase-Adjust Key
- (3) Color Temperature (Blue)/Phase + Adjust Key
- (4) Power LED Indicator
- (5) Reset
- (6) Power Input Terminal
- (7) Video Output
- (8) Anti-falling Screw

V5131-A7 & V5132-A7 Series

Infinova[®]
The Integrator's Manufacturer

Mini High-resolution Electronic Day/Night & Day/Night Camera



- **1/3" SONY high-resolution Exview HAD II CCD sensor**
- **Resolution: 700TVL**
- **Electronic Day/Night functionality (V5131-A7 series)**
- **IR-Cut Removable (ICR) Filter for Day/Night switching, settable multiple DAY/NIGHT modes (V5132-A7)**
- **Compact structure and elegant appearance**
- **Multi-language OSD menu for easy video parameter adjustment**
- **2D digital noise reduction, with high S/N ratio**
- **Highlight Compensation (HLC)**
- **Motion detection**
- **Privacy mask**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Backlight Compensation (BLC)**
- **Superior color rendering with high definition**
- **Multiple white balance modes for complicated illumination**
- **Image mirror**
- **12VDC/24VAC power supply**

Infinova's V5131-A7 & V5132-A7 series are recently launched mini high-resolution cameras, featuring a high resolution 1/3" SONY Exview HAD II CCD sensor. Advanced Effio Digital Signal Processor (DSP) provides 700 TV lines of resolution and excellent S/N ratio of more than 54dB. Excellent low light performance, superior color rendering ability and digital noise reduction function ensures these cameras provide you with high-quality images even in low light conditions.

Privacy mask and motion detection are available. Users can set up to four masks during surveillance so as to protect the private areas from being seen by operators.

These cameras offer user-friendly OSD menu, which makes it easy to adjust the video parameters; elegant appearance, compact structure and ease of installation make it an ideal surveillance solution for shopping malls, banks, office buildings, parking lots, city streets and other applications.

Technical specifications

Image Sensor	1/3" SONY Exview HAD II CCD
Video System	NTSC/PAL
Effective Pixels (H×V)	NTSC: 976×494, 480K; PAL: 976×582, 570K
Scanning System	2:1 interlacing
Resolution	700TVL
Day/Night Functionality	V5131-A7: Electronic Day/Night; V5132-A7: ICR
Sensitivity	V5131-A7: 0.1 lux @ F1.2 (50IRE, AGC HIGH); V5132-A7: Color mode: 0.1 lux @ F1.2 (50IRE, AGC HIGH), B/W mode: 0.005 lux @ F1.2 (50IRE, AGC HIGH)
S/N Ratio	>54dB (AGC OFF)
Video Output	1.0Vp-p, BNC connector
Auto Electronic Shutter	AUTO; MANU: NTSC: 1/60~1/100,000s, PAL: 1/50~1/100,000s
Iris Control	Manual/Auto
Auto Iris	DC Drive/VIDEO Drive
Lens Mount	C/CS mount (adjustable)
Gamma Correction	0.45
White Balance	ATW/PUSH/USER 1/USER 2/ANTI-CR/ MANUAL/PUSH LOCK
Color Temperature Range	1800K~10500K

Auto Gain Control	Available, 0~42dB (8-level adjustable)
BLC/HLC	Available
Privacy Mask	4 programmable masks
Motion Detection	4 programmable areas
Picture Adjustment	Horizontal Mirror, Brightness, Contrast, Sharpness, Hue, Color Gain
Noise Reduction	2D
Sync. System	Internal/Line Lock
Video Output	1.0 Vp-p (75 Ohm), BNC connector
Power Supply	12VDC/24VAC
Power Consumption	4W (Max)
Operating Temperature	14°F ~ 122°F (-10°C ~ 50°C)
Storage Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×W×L)	2.13"×2.68"×3.39" (54mm×68mm×86mm)
Box Dimensions (L×W×H)	5.12"×4.33"×3.93" (130mm×110mm×100mm)
Unit Weight	0.57lbs. (0.26kg)
Shipping Weight	0.73lbs. (0.33kg)

Certifications and Approval

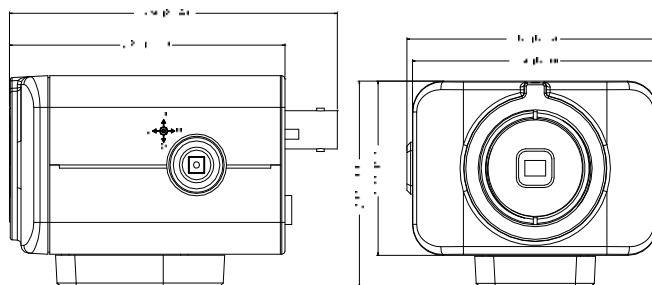
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , ISO 9001:2008
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Certificate No.: ¹CTL1404150726-EC; ²CTL1404150726-FC.

Ordering information

V5131-A7104	Mini analog fixed camera, 1/3 inch CCD, Electronic day/night, OSD, 700TVL, NTSC, 12VDC/24VAC
V5131-A7114	Mini analog fixed camera, 1/3 inch CCD, Electronic day/night, OSD, 700TVL, PAL, 12VDC/24VAC
V5132-A7104	Mini analog fixed camera, 1/3 inch CCD, Day/night, OSD, 700TVL, NTSC, 12VDC/24VAC
V5132-A7114	Mini analog fixed camera, 1/3 inch CCD, Day/night, OSD, 700TVL, PAL, 12VDC/24VAC

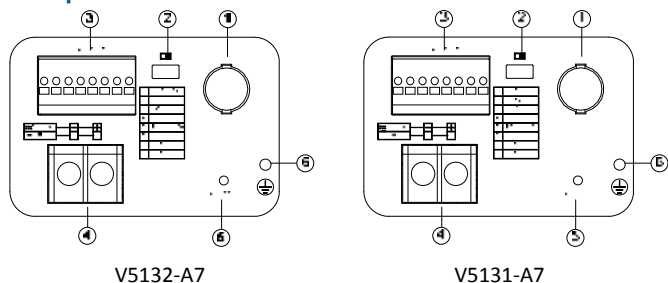
Dimensions



(Unit: inch, in the parentheses is mm)

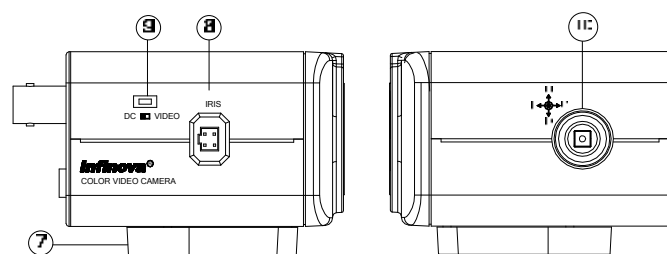
Parts

Back panel



- (1) Analog Video Output
- (2) Sync DIP Switch
- (3) Input/Output Port
- (4) Power Input Terminal
- (5) Power LED Indicator
- (6) GND

Side panel



- (7) Camera Mounting Block
- (8) Auto Iris Port
- (9) Lens Drive Selection
- (10) OSD Button

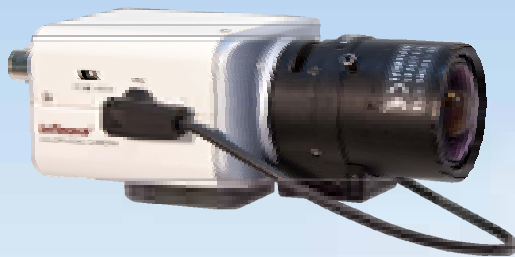
Pin Definition of (3) Input/Output Port

Pin	Mark	Functions
1	V5132: DN_IN	External input signal for day/night status control
	V5131: NC	Reserved
2	V5132: GND	Grounding
	V5131: NC	Reserved
3	V5132: DN_OUT	Output signal of day/night status
	V5131: NC	Reserved
4	GND	Grounding
5	MD_ALM	Motion detection alarm output signal
6	GND	Grounding
7	NC	Reserved
8	NC	Reserved

V5134-A7 Series

Mini High-resolution WDR Day/Night Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" SONY Super HAD II CCD sensor**
- **Resolution: 700TVL**
- **Super wide dynamic range: 75dB**
- **IR-Cut Removable (ICR) Filter for Day/Night switching, automatically controlled or externally controlled**
- **2D/3D digital noise reduction, with high S/N ratio**
- **Privacy Mask, Motion Detection Alarm**
- **Image Freeze and Flip function available**
- **Electronic stabilizer**
- **Highlight Compensation (HLC)**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Auto Tracking White Balance (ATW), Auto Iris control**
- **Digital Slow Shutter (DSS)**
- **OSD menu for easy video parameter adjustment**
- **Supports RS-485 remote control, with protocols auto-sensing**
- **Compact structure and elegant appearance**

V5134-A7 series are recently launched mini WDR day/night cameras, featuring a high-sensitivity 1/3" SONY Super HAD II CCD sensor. Advanced Digital Signal Processor (DSP) provides 700 TV lines of resolution and excellent S/N ratio of more than 65dB. These cameras provide enhanced color, clarity and details under extremely challenging lighting conditions.

In addition, advanced DSS (Digital Slow Shutter) technology effectively improves the low light performance. User-friendly OSD menu is offered for easy camera parameters adjustment; motion detection alarm function is also available for improvement of use efficiency of surveillance system; moreover, 15 programmable spherical privacy zones are provided for effectively protecting the private scene.

V5134-A7 series have the Day/Night functionality, with the day/night switching modes settable for 24-hour consecutive monitoring.

Besides, such parameters as auto gain control, backlight compensation, image mirror, CCD blemish, electronic stabilizer and E-ZOOM can be adjusted for best video view.

Technical specifications

Image Sensor	1/3" SONY Super HAD II CCD
Video System	NTSC/PAL
Effective Pixels	NTSC: 976(H) × 494(V), 480K; PAL: 976(H) × 582(V), 570K
WDR	75dB
Resolution	700 TVL
Sensitivity	Color mode: 0.01 lux@ (F1.2, AGC ON); B/W mode: 0.001 lux@ (F1.2, AGC ON)
S/N Ratio	>65dB
Video Output	1.0Vp-p, BNC connector
Picture Adjustment	Brightness, Sharpness, Hue, Saturation Auto;
Gain Control	Manual: 6dB, 12dB, 18dB, 24dB, 30dB, 36dB, 42dB, 45dB
Day/Night Modes	Auto, Color, B/W, External Trigger
White Balance	AWB/ATW/USER 1/USER 2/ANTI-CR/ MANUAL/PUSH LOCK
Privacy Mask	On/Off, position setting, up to 15 areas
Motion Detection	On/Off, position setting, up to 4 areas, with alarm out
Backlight Compensation	On/Off
Digital WDR	On/Off
Flickerless Mode	On/Off
	AUTO;
Electronic Shutter	MANU: NTSC: 1/60~1/100,000s, PAL: 1/50~1/100,000s
Auto Iris	DC Drive/VIDEO Drive
Lens Mount	C/CS mount (adjustable)
Color Temperature Range	1800K~10500K
Electronic Zoom	X256

DSS	X512
DNR	3D/2D
Image Mirror	H-FLIP/V-FLIP /H+V-FLIP
Image Freeze	On/Off
Camera ID	Character settings (up to 52 characters allowed), position adjustment
Blemish Compensation	CCD
RS485 Remote Control	Protocols: INFINOVA, PELCO-P/D; Baud Rate: 2400/4800/9600bps; Address: INFINOVA protocol supports up to 127 addresses, PELCO-P/D protocol supports up to 254 addresses
Sync. System	Internal/Line Lock
Power Supply	12VDC/24VAC
Power Consumption	4W (Max)
Operating Temperature	14°F ~ 122°F (-10°C ~ 50°C)
Storage Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×W×L)	2.13"×2.68"×3.39" (54mm×68mm×86mm)
Box Dimensions (L×W×H)	5.12"×4.33"×3.93" (130mm×110mm×100mm)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class B ² , ISO 9001:2008

Certificate No.: ¹CTL1406251448-EC; ²CTL1406251448-FC.

Ordering information

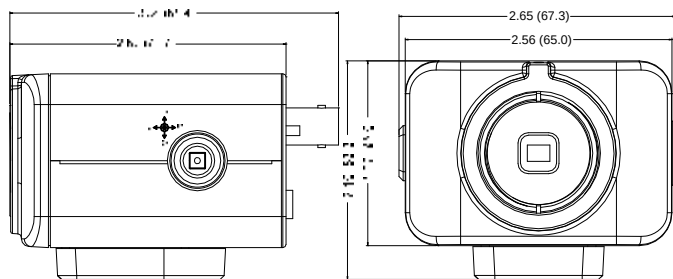
V5134-A7104	Mini analog WDR fixed camera, 1/3 inch CCD, Day/night, OSD, 700TVL, NTSC, 12VDC/24VAC
V5134-A7114	Mini analog WDR fixed camera, 1/3 inch CCD, Day/night, OSD, 700TVL, PAL, 12VDC/24VAC

ACCESSORIES

Power Supplies

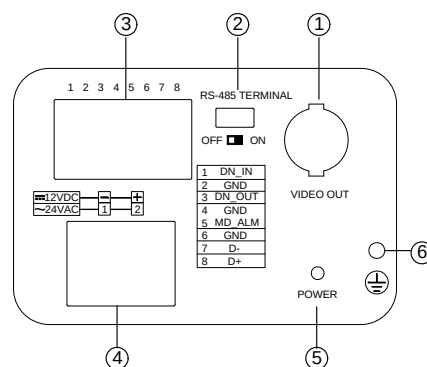
N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC

Dimensions



(Unit: inch, in the parentheses is mm)

Back panel



- (1) Video Output
- (2) RS485 Terminal DIP Switch
- (3) Input/Output Port
- (4) Power Input Terminal
- (5) Power LED Indicator
- (6) GND

V1242 Series

Day/Night Zoom Camera

Infinova[®]
The Integrator's Manufacturer



- **1/4" SONY CCD**
- **Digital Signal Processor (DSP) chip-set for image control**
- **22X/30X/23X/36X optical zoom, digital zoom available**
- **Excellent low light illumination**
- **High sensitivity, high resolution, and high S/N ratio**
- **Auto Electronic Shutter (AES), Auto/Manual Iris, Auto/Manual Focus, Auto/Manual Gain Control**
- **Multiple White Balance modes**
- **Backlight Compensation (BLC)/Highlight Compensation (HLC)**
- **Supports WDR**
- **Supports noise reduction**
- **Motion detection**
- **Up to 8 definable privacy masks**
- **Supports RS485 remote control, with protocol and baud rate auto-sensing**
- **Supports camera title setting, up to 13 characters**
- **English/ Chinese OSD menu optional**
- **12VDC/24VAC power supply**

Infinova's V1242 series zoom camera employs high resolution CCD and Digital Signal Processor (DSP) chip-set for image control, which provides clear high-resolution images and perfect function. Focal length and focusing are adjustable via the buttons on the back panel of the camera. And special functions, such as white balance, auto gain, backlight compensation and day/night switching can be performed via the menu.

The lens control input interface is built in the camera to be used with decoder and matrix switcher. It is also compatible with INFINOVA, PELCO-P/D protocols. The camera can be directly controlled through the RS485 interface to achieve multi-level and long-distance communications.

Technical specifications

Model	V1242-22A, V1242-23A, V1242-30A, V1242-36A
Optical Zoom	22X, 23X, 30X, 36X
Zoom Speed	V1242-22A: <3s V1242-23A: 1.6s V1242-30A: <3.5s V1242-36A: 5.7s
Digital Zoom	V1242-22A: 20X V1242-23A: 16X V1242-30A: 20X V1242-36A: 20X
Video Type	PAL (D/N)
Scanning System	2:1 Interlaced scanning
Image Sensor	1/4" CCD
Effective Pixels (H×V)	V1242-22A: 976 × 582 V1242-23A: 752 × 582 V1242-30A: 976 × 582 V1242-36A: 976 × 582
Lens	V1242-22A: F1.4~close, f=3.9~86.6mm V1242-23A: F1.6~close, f=3.5~80.5mm V1242-30A: F1.4~close, f=3.3~99.4mm V1242-36A: F1.4~F4.2, f=3.3~119mm
Angle of View (Horizontal)	V1242-22A: 49.16° (WIDE)~ 2.38° (TELE) V1242-23A: 55.5° (WIDE)~ 1.83° (TELE) V1242-30A: 57.25° (WIDE) ~ 2.08° (TELE) V1242-36A: 60.2° (WIDE) ~ 1.7° (TELE)
M.O.D	V1242-22A: 10cm (WIDE) ~ 150cm (TELE) V1242-23A: 150cm (TELE) V1242-30A: 10cm (WIDE) ~ 150cm (TELE) V1242-36A: 10cm (WIDE)
Sensitivity	V1242-22A: Color mode:0.18Lux (F1.4, 50IRE); B/W mode:0.05Lux (F1.4, 50IRE) V1242-23A: Color mode: 0.12Lux (F1.6, 50IRE);B/W mode: 0.06Lux (F1.6, 50IRE) V1242-30A: Color mode:0.30Lux (F1.4, 50IRE);B/W mode: 0.08Lux (F1.4, 50IRE) V1242-36A: Color mode: 0.22Lux (F1.4, 50IRE, AGC_HIGH) (typical); B/W mode: 0.05Lux(F1.4, 50IRE, AGC_HIGH) (typical)
Horizontal Resolution	V1242-22A: 650TVL; V1242-23A: 560TVL V1242-30A: 650TVL; V1242-36A: 650TVL
S/N Ratio	V1242-22A: >62dB; V1242-23A: >62dB V1242-30A: >62dB; V1242-36A: >62dB
Sync System	Internal
Video Output	1.0 ±0.2Vp-p Composite (75 Ohm), BNC connector
Focus	Auto/Manual, focus speed adjustable
Iris	Auto/Manual
Shutter Speed	Auto/Manual
Gain Control	Auto/Manual
NR	2D (22A, 36A); 2D/3D (22A, 30A)

BLC	V1242-22A: OFF/BLC/HLC V1242-23A: OFF/BLC/HLC V1242-30A: OFF/BLC/HLC V1242-36A: OFF/BLC-M/BLC-H
DSS	V1242-22A: X2~X128; V1242-23A: X2~X512 V1242-30A: X2~X128 V1242-36A: X1~X512
Stabilizer	V1242-22A: ON/OFF V1242-23A: / V1242-30A: ON/OFF V1242-36A: ON/OFF
WDR	Available
White Balance	ATW/ONE PUSH/MANU/INDOOR/OUTDOOR
Motion Detection	Available
Privacy Mask	Available, up to 8 masks
Image Set	Brightness, contrast, saturation and sharpness adjustment
RS485 Control	Protocol: INFINOVA/ PELCO-P/ PELCO-D/ AUTO Camera ID: 1~255 Baud rate: 2400/4800/9600/19200bps/AUTO
OSD	English/ Chinese OSD menu optional Supports camera title setting, up to 13 characters
Power Supply	12VDC/24VAC
Power Consumption	V1242-22A: < 3W V1242-23A: < 4W V1242-30A: < 3W V1242-36A: < 3W
Operating Temperature	14°F ~ 122°F (-10°C~+50°C)
Storage Temperature	-4°F ~ 140°F (-20°C~+60°C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×W×L)	3.15"×2.56"×5.69" (80mm×65mm×144.6mm)
Box Dimensions (L×W×H)	7.68"×4.72"×3.94" (195mm×120mm×100mm)
Net Weight	V1242-22A: 1.16lbs(0.527kg) V1242-23A: 1.15lbs(0.523kg) V1242-30A: 1.21lbs(0.550kg) V1242-36A: 1.27lbs(0.575kg)
Transportation Weight	V1242-22A: 1.43lbs(0.647kg) V1242-23A: 1.42lbs(0.643kg) V1242-30A: 1.48lbs(0.670kg) V1242-36A: 1.53lbs(0.695kg)

Certifications and Approval

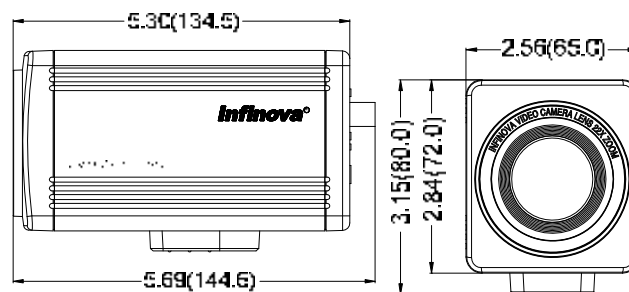
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC PART 15 Subpart B Class A ² , ISO 9001:2008
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Certificate No.: ¹CTL1402200218-EC; ²CTL1402200218-FC.

Ordering information

V1242-22A14	1/4" day/night zoom camera, PAL, 650TVL, 22X optical zoom, 20X digital zoom, 12VDC/24VAC
V1242-23A14	1/4" day/night zoom camera, PAL, 560TVL, 23X optical zoom, 16X digital zoom, 12VDC/24VAC
V1242-30A14	1/4" day/night zoom camera, PAL, 650TVL, 30X optical zoom, 20X digital zoom, 12VDC/24VAC
V1242-36A14	1/4" day/night zoom camera, PAL, 650TVL, 36X optical zoom, 20X digital zoom, 12VDC/24VAC

Dimensions



(Unit: inch, in the parentheses is mm)

V5410-A2 Series

Indoor Electronic Day/Night Fixed Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" SONY HAD CCD sensor**
- **Resolution: 480 TVL**
- **Electronic day/night functionality**
- **Aspherical IR corrected auto-iris vari-focal lens**
- **Digital Signal Processor (DSP) for high quality image**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Auto White Balance (ATW), Flickerless (F.L.), Backlight Compensation (BLC)**
- **Surface Mount, 2-axis adjustment**
- **12VDC/24VAC power input**

V5410-A2 series indoor electronic day/night fixed minidome cameras feature a high-resolution 1/3" CCD sensor and excellent low light operation. They are available in resolutions of 480 lines. They are equipped with a 4.0~9.0mm auto-iris, vari-focal lens. The cameras are designed for surface mount with 2-axis adjustment and require 12VDC/24VAC for power. The cameras provide excellent image quality along with ease of installation.

Technical specifications

Image Sensor	1/3" SONY HAD CCD
Video Type	PAL
Effective Pixels	752(H)×582(V)
Resolution	480 TVL
Sensitivity	0.5 lux @ F1.4 (50IRE, AGC ON); 0.2 lux @ F1.4 (30IRE, AGC ON)
Scanning Frequency	15.625kHz (Line), 50Hz (Field)
S/N Ratio	> 48 dB (AGC OFF)
Auto Electronic Shutter	ON/OFF, 1/50~1/100,000s
Gamma Correction	0.45
Lens	Vari-Focal: F1.4, f=4.0~9.0 mm
Camera Angle Adjustment	X (Panning): 0°~360°; Y (Tilting): 0°~85°
Flickerless Mode	ON/OFF, 1/120s
Backlight Compensation	ON/OFF
Auto Gain Control	ON/OFF
Auto White Balance	ATW
Color Temperature Range	2400K~8000K

Sync. System	Internal
Video Output	1.0 Vp-p (75 Ohm), BNC connector
Power Supply	12VDC/24VAC
Power Consumption	12 VDC: 3 W; 24 VAC: 4 W
Operating Temperature	14° F ~ 122° F (-10° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	3.84"×5.04" (97.5 mm×128 mm)
Box Dimensions (L×W×H)	5.51"×5.51"×4.72" (140 mm×140 mm×120 mm)
Unit Weight	0.60 lbs. (0.27 kg)
Shipping Weight	1.04 lbs. (0.47 kg)

Certifications and Approval

Product Certifications	CE/EMC: EN 61000-6-3, EN 61000-6-1, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B ² , ISO 9001:2008
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Certificate No.: ¹ BCT08FC-475E; ² BCT08FC-476E.

Ordering information

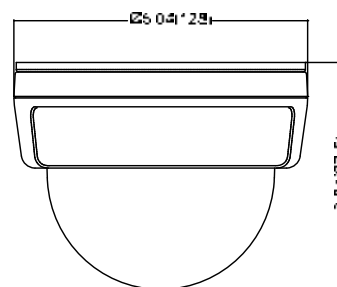
V5410-A2014SK Analog minidome camera, 2-axis, Indoor,
1/3 inch CCD, Electronic day/night, 480TVL, PAL,
12VDC/24VAC, Surface mount, 4.0~9.0mm
vari-focal lens

ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC
N3928 Series	Power Supply, 24VAC with 4, 8 or 16 Outputs

Dimensions

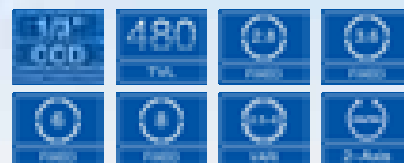


(Unit: inch, in the parentheses is mm)

V5411-A2 Series

Indoor Color Fixed Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" SONY HAD CCD sensor**
- **Resolution/Sensitivity: 480 TVL at 0.3 lux**
- **Fixed lens; Aspherical IR corrected auto-iris vari-focal lens**
- **Digital Signal Processor (DSP) for high quality image**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Auto White Balance (ATW), Flickerless (F.L.), Backlight Compensation (BLC)**
- **Surface Mount, 2-axis adjustment**
- **12VDC/24VAC power input**

V5411-A2 series indoor color fixed minidome cameras feature a high-resolution 1/3" CCD sensor and excellent low light operation. They are available in resolutions of 480 TV lines at 0.3 lux. They are built-in a fixed lens or an auto-iris vari-focal lens. The cameras are designed for surface mount with 2-axis adjustment and require 12VDC/24VAC for power. The cameras provide excellent image quality along with ease of installation.

Technical specifications

Image Sensor	1/3" SONY HAD CCD
Effective Pixels	NTSC: 768(H)×494(V); PAL: 752(H)×582(V)
Resolution	480 TVL
Sensitivity	0.3 lux @ F1.2 (30IRE, AGC ON)
S/N Ratio	> 48 dB (AGC OFF)
Scanning Frequency	15.625kHz (Line), 50Hz (Field)
Auto Electronic Shutter	ON/OFF, NTSC: 1/60~1/100,000s, PAL: 1/50~1/100,000s
Gamma Correction	0.45
Lens	Fixed: F2.0, f=2.8mm, 3.6 mm, 6mm or 8mm; Vari-Focal: F1.2, f=2.5~6 mm
Camera Angle Adjustment	X (Panning): 0°~360°; Y (Tilting): 0°~85°
Flickerless Mode	ON/OFF, NTSC: 1/100s, PAL: 1/120s
Backlight Compensation	ON/OFF
Auto Gain Control	ON/OFF
Auto White Balance	ATW
Color Temperature Range	2400K~8000K

Sync. System	Internal
Video Output	1.0 Vp-p (75 Ohm), BNC connector
Power Supply	12VDC/24VAC
Power Consumption	12 VDC: 3 W; 24 VAC: 4 W
Operating Temperature	14° F ~ 122° F (-10° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	3.84"×5.04" (97.5 mm×128 mm)
Box Dimensions (L×W×H)	5.51"×5.51"×4.72" (140 mm×140 mm×120 mm)
Unit Weight	0.60 lbs. (0.27 kg)
Shipping Weight	1.04 lbs. (0.47 kg)
Certifications and Approval	
Product Certifications	CE/EMC: EN 61000-6-3, EN 61000-6-1, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B ² , ISO 9001:2008

Certificate No.: ¹ BCT08FC-475E; ² BCT08FC-476E.

Ordering information

V5411-A2004ST	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, NTSC, 12VDC/24VAC, Surface mount, 2.8mm fixed lens
V5411-A2004SU	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, NTSC, 12VDC/24VAC, Surface mount, 3.6mm fixed lens
V5411-A2004SW	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, NTSC, 12VDC/24VAC, Surface mount, 6mm fixed lens
V5411-A2004SX	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, NTSC, 12VDC/24VAC, Surface mount, 8mm fixed lens
V5411-A2004SB	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, NTSC, 12VDC/24VAC, Surface mount, 2.5-6mm vari-focal lens
V5411-A2014ST	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, PAL, 12VDC/24VAC, Surface mount, 2.8mm fixed lens

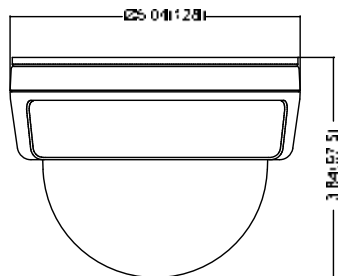
V5411-A2014SU	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, PAL, 12VDC/24VAC, Surface mount, 3.6mm fixed lens
V5411-A2014SW	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, PAL, 12VDC/24VAC, Surface mount, 6mm fixed lens
V5411-A2014SX	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, PAL, 12VDC/24VAC, Surface mount, 8mm fixed lens
V5411-A2014SB	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Color only, 480TVL, PAL, 12VDC/24VAC, Surface mount, 2.5-6mm vari-focal lens

ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC
N3928 Series	Power Supply, 24VAC with 4, 8 or 16 Outputs

Dimensions



(Unit: inch, in the parentheses is mm)

V5411-A8 Series

Indoor Electronic Day/Night Fixed Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" SONY high-resolution Exview HAD II CCD sensor**
- **Resolution: 700TVL**
- **Electronic day/night functionality**
- **Compact structure, elegant design, easy to install**
- **OSD menu in multiple languages**
- **2D digital noise reduction, high S/N ratio, clear image**
- **Highlight Compensation (HLC)**
- **Motion detection**
- **Privacy mask**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Backlight Compensation (BLC)**
- **Multiple white balance modes and superior color rendering ability**
- **CCD blemish compensation**
- **Mirror, Hue, and Color Gain adjustable**
- **12VDC/24VAC power supply**
- **Internal/ Line Lock Sync. System**

V5411-A8 series indoor electronic day/night fixed minidome cameras feature a high-resolution 1/3" SONY Exview HAD II CCD sensor. Advanced Effio Digital Signal Processor (DSP) provides 600 TV lines of resolution, excellent low light performance, and superior color rendering ability and digital noise reduction and Electronic day/night functionality, which ensures high-quality videos under extremely difficult light conditions.

V5411-A8 series provides privacy mask which effectively protects certain private areas from being seen and motion detection which provides higher security for your surveillance.

V5411-A8 series offers user-friendly OSD menu, easy to adjust the video parameters. In addition, its elegant design and compact structure makes it an ideal surveillance solution for shopping malls, banks, office buildings, parking lots, city streets and other applications.

Technical specifications

Image Sensor	1/3" SONY Exview HAD II CCD
Video Type	NTSC/PAL
Effective Pixels	NTSC: 976 (H) × 494(V), 480K; PAL: 976(H) × 582(V), 570K
Scanning System	2:1 interlaced scanning
Resolution	700TVL
Sensitivity	0.01 lux @ F1.2 (50 IRE, AGC HIGH)
S/N Ratio	>54dB (AGC OFF)
Lens	F2.0, f=2.8mm, 3.6mm, 8mm
Auto Iris	DC Drive
Camera Angle Adjustment	X (Panning): 0°~360°; Y (Tilting): 0°~85°
Auto Electric Shutter	Auto; Manual: NTSC: 1/60~1/100,000s, PAL: 1/50~1/100,000s
Gamma Correction	0.45
White Balance	ATW/PUSH/USER 1/USER 2/ANTI-CR/ MANUAL/PUSH LOCK
Color Temperature Range	1800K~10500K
Auto Gain Control	Available, 0~42dB (8-level adjustable)
BLC/HLC	Available

Privacy Mask	Up to 4 programmable masks
Motion Detection	Up to 4 programmable areas
Picture Adjustment	Horizontal Mirror, Brightness, Contrast, Sharpness, Hue, Color Gain
Noise Reduction	2D
Sync. System	Internal/ Line Lock
Video Output	1.0 Vp-p (75 Ohm), BNC connector
Power Supply	12VDC/24VAC
Power Consumption	4 W (maximum)
Operating Temperature	14° F ~ 122° F (-10° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×W×D)	3.84"×5.04" (97.5 mm×128 mm)
Box Dimensions (L×W×H)	5.51"×5.51"×4.72" (140 mm×140 mm×120 mm)
Unit Weight	0.60 lbs. (0.27 kg)
Shipping Weight	1.04 lbs. (0.47 kg)

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , ISO 9001:2008
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Certificate No.: ¹ CTL1407111592-EC; ² CTL1407111592-FC.

Ordering information

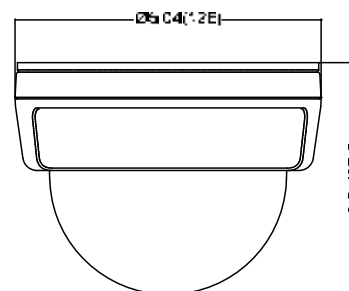
V5411-A8004ST	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Electronic day/night, 700TVL, NTSC, 12VDC/24VAC, Surface mount, 2.8mm fixed lens
V5411-A8014ST	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Electronic day/night, 700TVL, PAL, 12VDC/24VAC, Surface mount, 2.8mm fixed lens
V5411-A8004SU	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Electronic day/night, 700TVL, NTSC, 12VDC/24VAC, Surface mount, 3.6mm fixed lens
V5411-A8014SU	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Electronic day/night, 700TVL, PAL, 12VDC/24VAC, Surface mount, 3.6mm fixed lens
V5411-A8004SX	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Electronic day/night, 700TVL, NTSC, 12VDC/24VAC, Surface mount, 8mm fixed lens
V5411-A8014SX	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Electronic day/night, 700TVL, PAL, 12VDC/24VAC, Surface mount, 8mm fixed lens

ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC

Dimensions



(Unit: inch, in the parentheses is mm)

V5412-A7 Series

Indoor Day/Night Fixed Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" SONY high-resolution Exview HAD II CCD sensor**
- **Resolution: 700TVL**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Compact structure, elegant design, easy to install**
- **OSD menu in multiple languages**
- **2D digital noise reduction, high S/N ratio, clear image**
- **Highlight Compensation (HLC)**
- **Motion detection**
- **Privacy mask**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Backlight Compensation (BLC)**
- **Multiple white balance modes and superior color rendering ability**
- **CCD blemish compensation**
- **Mirror, Hue, and Color Gain adjustable**
- **12VDC/24VAC power supply**
- **Internal/ Line Lock Sync. System**

V5412-A7 series indoor day/night fixed minidome cameras feature a high-resolution 1/3" SONY Exview HAD II CCD sensor. Advanced Effio Digital Signal Processor (DSP) provides 700 TV lines of resolution, excellent low light performance, and superior color rendering ability and digital noise reduction function, which ensures high-quality videos under extremely difficult light conditions.

V5412-A7 series provides privacy mask which effectively protects certain private areas from being seen and motion detection which provides higher security for your surveillance.

V5412-A7 series has the day/night functionality, which can automatically switch the color and B/W modes.

V5412-A7 series offers user-friendly OSD menu, easy to adjust the video parameters. In addition, its elegant design and compact structure makes it an ideal surveillance solution for shopping malls, banks, office buildings, parking lots, city streets and other applications.

Technical specifications

Image Sensor	1/3" SONY Exview HAD II CCD
Video Type	NTSC/PAL
Effective Pixels	NTSC: 976 (H) × 494(V), 480K; PAL: 976(H) × 582(V), 570K
Scanning System	2:1 interlace
Resolution	700TVL
Day/Night Functionality	ICR
Sensitivity	Color mode: 0.01 lux @ F1.2 (50 IRE, AGC HIGH); B/W mode: 0.001 lux @ F1.2 (50 IRE, AGC HIGH)
S/N Ratio	>54dB (AGC OFF)
Lens	F1.2, f=2.5~6 mm or F1.4, f=3.3~12 mm
Auto Iris	DC Drive
Camera Angle Adjustment	X (Panning): 0°~360°; Y (Tilting): 0°~85°
Auto Electric Shutter	Auto; Manual: NTSC: 1/60~1/100,000s, PAL: 1/50~1/100,000s
Gamma Correction	0.45
White Balance	ATW/PUSH/USER 1/USER 2/ANTI-CR/ MANUAL/PUSH LOCK
Color Temperature Range	1800K~10500K
Auto Gain Control	Available, 0~42dB (8-level adjustable)
BLC/HLC	Available

Privacy Mask	4
Motion Detection	4
Picture Adjustment	Horizontal Mirror, Brightness, Contrast, Sharpness, Hue, Color Gain
Noise Reduction	2D
Sync. System	Internal/ Line Lock
Video Output	1.0 Vp-p (75 Ohm), BNC connector
Power Supply	12VDC/24VAC
Power Consumption	4 W (maximum)
Operating Temperature	14° F ~ 122° F (-10° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×W×D)	3.84"×5.04" (97.5 mm×128 mm)
Box Dimensions (L×W×H)	5.51"×5.51"×4.72" (140 mm×140 mm×120 mm)
Unit Weight	0.60 lbs. (0.27 kg)
Shipping Weight	1.04 lbs. (0.47 kg)

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , ISO 9001:2008
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Certificate No.: ¹ CTL1407111590-EC; ² CTL1407111590-FC.

Ordering information

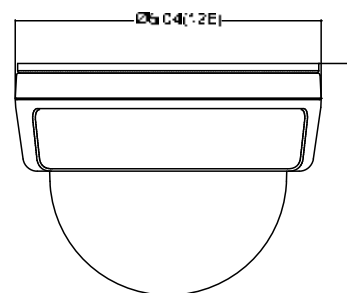
V5412-A7004SB	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Day/night, 700TVL, NTSC, 12VDC/24VAC, Surface mount, 2.5-6mm vari-focal lens
V5412-A7014SB	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Day/night, 700TVL, PAL, 12VDC/24VAC, Surface mount, 2.5-6mm vari-focal lens
V5412-A7004SE	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Day/night, 700TVL, NTSC, 12VDC/24VAC, Surface mount, 3.3-12mm vari-focal lens
V5412-A7014SE	Analog minidome camera, 2-axis, Indoor, 1/3 inch CCD, Day/night, 700TVL, PAL, 12VDC/24VAC, Surface mount, 3.3-12mm vari-focal lens

ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC
N3928 Series	Power Supply, 24VAC with 4, 8 or 16 Outputs

Dimensions



(Unit: inch, in the parentheses is mm)

V5821-A7 & V5822-A7 Series

Infinova[®]
The Integrator's Manufacturer

Vandal Resistant Electronic Day/Night & Day/Night Fixed Minidome Camera



- **1/3" SONY high-resolution Exview HAD II CCD sensor**
- **Resolution: 700TVL**
- **Electronic Day/Night functionality (V5821-A7 series)**
- **Automatic Day/Night functionality with ICR filter, settable AUTO/ DAY/ NIGHT mode (V5822-A7 series)**
- **Supports OSD menu display**
- **2D digital noise reduction**
- **Highlight Compensation (HLC)**
- **Motion detection**
- **Privacy mask**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Backlight Compensation (BLC), Flickerless Mode (F.L.)**
- **Multiple white balance modes for complicated illumination**
- **Aspherical, auto-iris, vari-focal lens with IR correction**
- **12VDC/24VAC power input, centralized power-supply mode**
- **Surface or Recessed Mount, Vandal Resistant, 3-axis adjustment**

V5821-A7 & V5822-A7 series minidome cameras feature a high-resolution 1/3" SONY Exview HAD II CCD sensor and advanced Effio Digital Signal Processor (DSP). These cameras provide 700 TV lines of resolution, improved color rendering and digital noise reduction, which ensure excellent video in extremely difficult illumination conditions.

The cameras offer user-friendly OSD menu. They can designate 4 privacy masks in a surveillance screen, which effectively protects certain area from being seen by operator. Motion detection provides higher security of your surveillance system.

V5821-A7 & V5822-A7 series deploy vandal resistant dome housing, making them the ideal choice for the hazardous surveillance environments. The cameras provide easy installation, designed for surface or recessed mount with 3-axis adjustment.

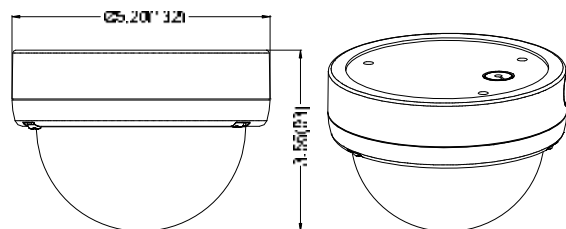
Technical specifications

Image Sensor	1/3" SONY Exview HAD II CCD
Video Type	NTSC/PAL
Effective Pixels	NTSC: 976(H) × 494(V), 480K; PAL: 976(H) × 582(V), 570K
Scanning System	2:1 interlace
Resolution	700TVL
Sensitivity	V5821-A7: 0.1 lux @ F1.2 (50IRE, AGC HIGH); V5822-A7: Color mode: 0.1 lux @ F1.2 (50IRE, AGC HIGH), B/W mode: 0.005 lux @ F1.2 (50IRE, AGC HIGH)
S/N Ratio	>54dB (AGC OFF)
Lens	F1.2, f=2.5~6 mm or F1.4, f=3.3~12 mm
Auto Iris	DC Drive
Camera Angle Adjustment	X (Panning): 0°~350°; Y (Tilting): 0°~75°; Z (Rotating): 0°~350°
Auto Electric Shutter	Auto; Manual: NTSC: 1/60~1/100,000s, PAL: 1/50~1/100,000s
Gamma Correction	0.45
White Balance	ATW/ MANUAL /INDOOR/ OUTDOOR/ FLUORES/ PUSHLOCK
Color Temperature Range	1800K~10500K
Auto Gain Control	HIGH/ MEDIUM-H/ MEDIUM-M/ MEDIUM-L/ LOW-H/ LOW-M/ LOW-L/ OFF
Backlight Compensation	HLC/ BLC/ OFF
Flickerless Mode	ON/ OFF

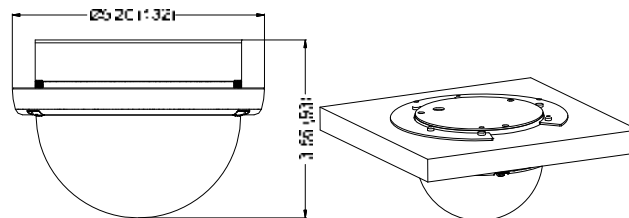
Privacy Mask	4 programmable masks
Motion Detection	4 programmable areas
Picture Adjustment	Horizontal Mirror, Brightness, Contrast, Sharpness, Hue, Color Gain
Noise Reduction	2D
Alarm	Available, MD-OUT/ OFF
Sync. System	Internal/Line Lock
Video Output	1.0 Vp-p (75 Ohm), BNC connector
Power Supply	12VDC/ 24VAC
Power Consumption	3W (maximum)
Operating Temperature	14 °F ~ 122 °F (-10 °C ~ 50 °C)
Storage Temperature	-4 °F ~ 140 °F (-20 °C ~ 60 °C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	3.66"×5.20" (93mm×132mm)
Box Dimensions (L×W×H)	6.89"×6.89"×6.30" (175mm×175mm×160mm)
Unit Weight	Surface: 1.65 lbs. (0.75 kg); Recessed: 1.21 lbs. (0.55 kg)
Shipping Weight	Surface: 2.09 lbs. (0.95 kg); Recessed: 1.65 lbs. (0.75 kg)
Certifications and Approval	
Product Certifications	IEC61373, CISPR22/24 ¹ , CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B Class A ² , ISO 9001:2008

Certificate No.: ¹BCTQDZ11050443; ²CTL1407111591-EC; ³CTL1407111591-FC.

Dimensions



Surface mount



Recessed mount

(Unit: inch, in the parentheses is mm)

Ordering information

V5821-A7004SE	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Electronic day/night, 700TVL, NTSC, 12VDC/24VAC, Surface mount, 3.3-12mm vari-focal lens
V5821-A7014SE	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Electronic day/night, 700TVL, PAL, 12VDC/24VAC, Surface mount, 3.3-12mm vari-focal lens
V5822-A7004SB	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 700TVL, NTSC, 12VDC/24VAC, Surface mount, 2.5-6mm vari-focal lens
V5822-A7004SE	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 700TVL, NTSC, 12VDC/24VAC, Surface mount, 3.3-12mm vari-focal lens
V5822-A7004RB	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 700TVL, NTSC, 12VDC/24VAC, Recessed mount, 2.5-6mm vari-focal lens
V5822-A7004RE	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 700TVL, NTSC, 12VDC/24VAC, Recessed mount, 3.3-12mm vari-focal lens

V5822-A7014SB	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 700TVL, PAL, 12VDC/24VAC, Surface mount, 2.5-6mm vari-focal lens
V5822-A7014SE	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 700TVL, PAL, 12VDC/24VAC, Surface mount, 3.3-12mm vari-focal lens
V5822-A7014RB	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 700TVL, PAL, 12VDC/24VAC, Recessed mount, 2.5-6mm vari-focal lens
V5822-A7014RE	Analog minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 700TVL, PAL, 12VDC/24VAC, Recessed mount, 3.3-12mm vari-focal lens

ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC
N3928 Series	Power Supply, 24VAC with 4, 8 or 16 Outputs

V5822IR-A3 Series

Vandal Resistant IR Minidome Camera

Infinova[®]
The Integrator's Manufacturer



- **1/3" SONY Super HAD II CCD sensor**
- **Resolution: 520 TVL**
- **IR-Cut Removable (ICR) Filter for Day/Night switching**
- **Built-in IR illuminators, 25m illumination distance**
- **Adjustable power consumption of IR illuminators**
- **Super imaging performance at nighttime**
- **Auto Electronic Shutter (AES), Auto Gain Control (AGC), Backlight Compensation (BLC)**
- **Aspherical, auto-iris, vari-focal lens with IR correction**
- **LEVEL adjustment**
- **Surface Mount, 3-axis adjustment**

V5822IR-A3 series IR minidome cameras feature a high-sensitivity 1/3" SONY Super HAD II CCD sensor. Advanced Digital Signal Processor (DSP) provides 520 TV lines of resolution and authentic images. The built-in IR illuminators provide 25m illumination distance. These cameras are the perfection solution for a 24x7 around-the-clock surveillance.

V5822IR-A3 series IR minidome cameras employ vandal resistant minidome housing, making them the ideal choice for the hazardous surveillance environments. The cameras provide easy installation, with 3-axis adjustment.

Technical specifications

Image Sensor	1/3" SONY Super HAD II CCD
Video System	NTSC/PAL
Scanning System	2:1interlace scanning
Effective Pixels	NTSC: 768(H)×494(V), 380K; PAL: 752(H)×582(V), 440K
Resolution	520 TVL
Sensitivity	Color mode: 0.2 lux @ F1.2 (30 IRE, AGC HIGH); B/W mode: 0 lux (IR ON)
IR Wavelength	850nm
IR Illumination Distance	25m
S/N Ratio	> 48 dB (AGC OFF), Black burst
Lens	F1.4, f=3.3~12 mm
Camera Angle Adjustment	X (Panning): 0°~350°; Y (Tilting): 0°~75°; Z (Rotating): -85°~85°
Auto Electronic Shutter	OFF: NTSC: 1/60s, PAL:1/50s; ON: NTSC: 1/60~1/100,000s, PAL:1/50~1/100,000s
Gamma Correction	0.45
White Balance	Auto
Color Temperature Range	2400K~9600K
Auto Gain Control	High/Low

Backlight Compensation	ON/OFF
Sync. System	Internal
Video Output	1.0 Vp-p (75 Ohm), BNC connector
Power Supply	12VDC/24VAC
Power Consumption	12VDC: 4.5W; 24VAC: 5W
Operating Temperature	14° F ~ 122° F (-10° C ~ 50° C)
Storage Temperature	-4° F ~ 140° F (-20° C ~ 60° C)
Operating Humidity	0~90% RH (non-condensing)
Unit Dimensions (H×Ø)	3.66"×5.20" (93mm×132mm)
Box Dimensions (L×W×H)	6.9"×6.9"×6.3" (175mm×175mm×160mm)
Unit Weight	1.9 lbs. (0.85 kg)
Shipping Weight	2.3 lbs. (1.05 kg)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part 15 Subpart B ² , ISO 9001:2008

Certificate No.: ¹ BCT12ER-0596E; ² BCT12EC-0597E.

Ordering information

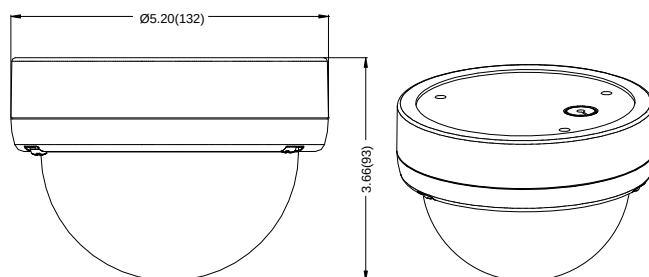
V5822IR-A3004SE	IR minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 520TVL, NTSC, 12VDC/24VAC, Surface mount, 3.3-12mm vari-focal lens
V5822IR-A3014SE	IR minidome camera, 1/3 inch CCD, Vandal-resistant, 3-axis, Day/night, 520TVL, PAL, 12VDC/24VAC, Surface mount, 3.3-12mm vari-focal lens

ACCESSORIES

Power Supplies

N3921-24A-1	Power Supply, 24VAC, 20VA, Plug-In, 120VAC
N3921-24A-2	Power Supply, 24VAC, 20VA, Plug-In, 230VAC
N3928	Power Supply, 24VAC with 4, 8 or 16 Outputs

Dimensions



(Unit: inch, in the parentheses is mm)

V1730A Series

Indoor & Outdoor Mini PTZ Dome Camera

Infinova[®]
The Integrator's Manufacturer



- **High performance 1/4" SONY CCD, clear image and natural color**
- **10×12 zoom available**
- **High-precision drive motor for smooth and quick movement**
- **360° continuous pan travel, auto flip vertically**
- **Infinova, Pelco-P/D protocols, and Up-the-Coax protocol self-adaptive**
- **No surveillance blind area**
- **Dome address setting via software or DIP switch**
- **254 presets, 4 patterns, 4 autopans, 6 tours, auto flip, autoscan and home position**
- **Motion detection function associated with relay alarm, 2 alarm inputs, 1 relay output**
- **16 video blanking sectors and 24 spherical privacy zones**
- **2 alarm inputs and 1 relay output, with alarm associated with presets**
- **Surge and lightning protection**
- **IP66 rating (except recessed mount domes)**

V1730A series indoor vandal resistant 10X mini PTZ dome is compact and light weight with an inner step motor, slip ring, rotation bearing, timing PCB and transmission gear.

V1730A series 10X mini PTZ dome features continuous 360° rotation, with super sensitivity, auto focus, auto iris, and backlight compensation. The cameras provide quality images under any lighting conditions. The OSD menu allows for the ease of installation and maintenance.

Technical specifications

Lens

Optical Zoom	10X
Aperture/ Focal Length	F1.8 ~ F2.9, f=4.2mm (Wide) ~ 42.0mm (Tele)
Focal Range	0.2m (Wide) ~ 1m (Tele)
Angle of View	46.0° (Wide) ~ 4.6° (Tele)

Camera

Image Sensor	Sony 1/4-type EXview HAD CCD
Effective Pixels (H×V)	PAL/440K: 752×582; NTSC/380K: 768×494
Sensitivity	1.0 lux (F1.8, NTSC: 1/60s, PAL: 1/50s) (typical value)
S/N Ratio	>50dB
External Control	VISCA (TTL signal level)

Video

Video Type	PAL/NTSC
Horizontal Resolution	530TVL

Communication

Protocols	INFINOVA, PELCO-P/D self-adaptive
Number of Addresses	1~254
Baud Rate	2400/4800/9600bps optional

Operational

Manual Pan Speed	Pan: 1°~240°/s
Manual Tilt Speed	Tilt: 1°~100°/s
Preset Speed	Max. 350°/s
Pan Travel	360° continuous
Tilt Travel	0°~90°
Preset Accuracy	±0.3°
Presets	254
Patterns	4
Autopans	4
Video Blanking Sectors	16
Spherical Privacy Zones	24
Tours	6
Alarm Input	2
Alarm Output	1
Motion Detection	Yes
Home Return	Yes
Auto Scan	Yes
Image Mirror	ON/OFF
Digital Zoom	1~12X adjustable

Focus	Auto, Manual, M/A
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Shutter Speed	NTSC: 1/4 ~ 1/10,000s; PAL: 1/3 ~ 1/10,000s
Digital Slow Shutter	ON/OFF
Backlight Compensation	ON/OFF

Mechanical

Product Dimension (H×D)	Bracket (indoor): 7.22" × Φ5.91" (183.5mm × Φ150mm); Bracket (outdoor): 7.87" × Φ6.69" (200mm × Φ170mm) Recessed: 6.40" × Φ7.17" (162.5mm × Φ182mm); Surface: 6.48" × Φ5.91" (164.5mm × Φ150mm)
Box Dimension (L×W×H)	8.66" × 8.66" × 11.22" (220mm × 220mm × 285mm)
Shipping Weight	Bracket (indoor): 4.63lbs (2.1kg); Bracket (outdoor): 5.07lbs (2.3kg) Recessed: 5.07lbs (2.3kg); Surface: 5.51lbs (2.5kg)
Motor	Stepping motor
Mounting	Bracket, ceiling, surface
Housing Material	Cast Aluminum

Sync

Sync System	Internal
Auto Synchronization	Built-in sync generator

Electrical

Power Supply	24VAC/24VDC self-adaptive or 12VDC
Power Consumption	Indoor: 8W (12VDC; 12W (24VDC); Outdoor: 15W (24VAC); 23W (24VDC, W/Heater); 36W (24VAC, W/Heater)
Power Surge Protection	Yes

Environmental

Operating Temperature	Indoor: 14°F ~ 104°F (-10°C ~ +40°C); Outdoor: -40°F ~ 140°F (-40°C ~ +60°C)
Operating Humidity	0~90%RH (non-condensing)

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part15 Subpart B ² , ISO 9001:2008
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Certificate No.: ¹ CTL1405281198-EC; ² CTL1405281198-FC.

Ordering information

PTZ Dome Camera Part Numbering

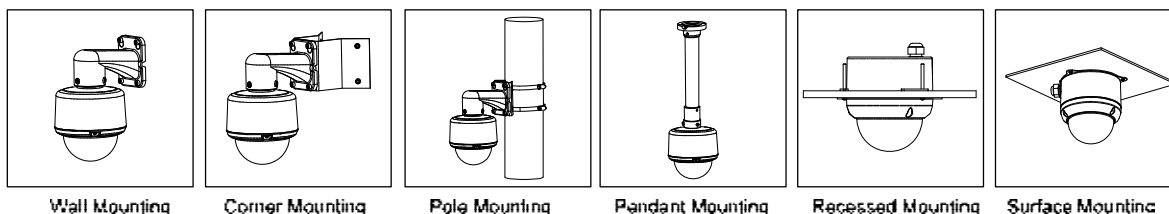
Type	Bubble	Model (NTSC)	Model (PAL)
Bracket Mount Camera 24VAC/24VDC, Indoor	Vandal-Resistant Clear	V1731A-C0C3B3	V1731A-C1C3B3
	Vandal-Resistant Smoked	V1731A-C0S3B3	V1731A-C1S3B3
Ceiling Mount Camera 24VAC/24VDC, Indoor	Vandal-Resistant Clear	V1731A-C0C3C3	V1731A-C1C3C3
	Vandal-Resistant Smoked	V1731A-C0S3C3	V1731A-C1S3C3
Surface Mount Camera 24VAC/24VDC, Indoor	Vandal-Resistant Clear	V1731A-C0C3S3	V1731A-C1C3S3
	Vandal-Resistant Smoked	V1731A-C0S3S3	V1731A-C1S3S3
Bracket Mount Camera 12VDC, Indoor	Vandal-Resistant Clear	V1731A-C0C3B5	V1731A-C1C3B5
	Vandal-Resistant Smoked	V1731A-C0S3B5	V1731A-C1S3B5
Ceiling Mount Camera 12VDC, Indoor	Vandal-Resistant Clear	V1731A-C0C3C5	V1731A-C1C3C5
	Vandal-Resistant Smoked	V1731A-C0S3C5	V1731A-C1S3C5
Surface Mount Camera 12VDC, Indoor	Vandal-Resistant Clear	V1731A-C0C3S5	V1731A-C1C3S5
	Vandal-Resistant Smoked	V1731A-C0S3S5	V1731A-C1S3S5
Bracket Mount Camera 24VAC/24VDC, Outdoor	Vandal-Resistant Clear	V1732A-C0C3B3	V1732A-C1C3B3
	Vandal-Resistant Smoked	V1732A-C0S3B3	V1732A-C1S3B3
Surface Mount Camera 24VAC/24VDC, Outdoor	Vandal-Resistant Clear	V1732A-C0C3S3	V1732A-C1C3S3
	Vandal-Resistant Smoked	V1732A-C0S3S3	V1732A-C1S3S3

Accessories

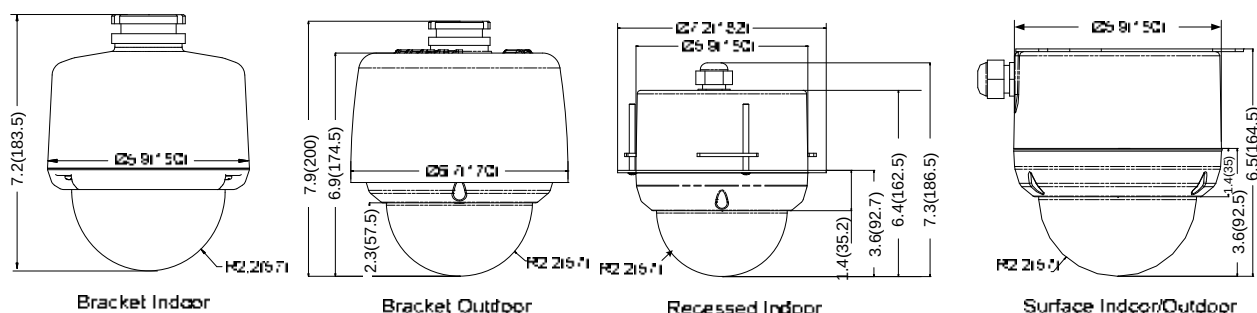
V1761MS	Wall mount, 6 inch horizontal
V1762MS	Corner mount, 6 inch horizontal
V1763MS	Pole side, 6 inch horizontal
V1764	Indoor pendant, 15 inch long vertical
V1764A	Outdoor pendant, 15 inch long vertical, side opening for wiring
V1764B	Outdoor pendant, 15 inch long vertical, top opening for wiring

For detailed information, refer to V1760 series indoor/outdoor dome mounts.

Mounting



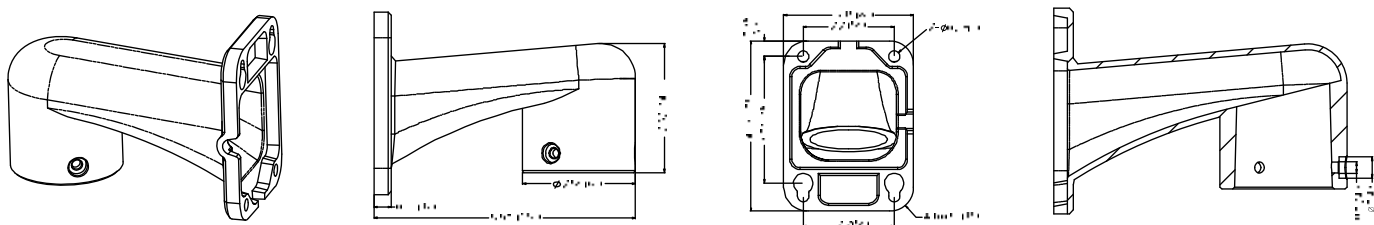
Dimensions



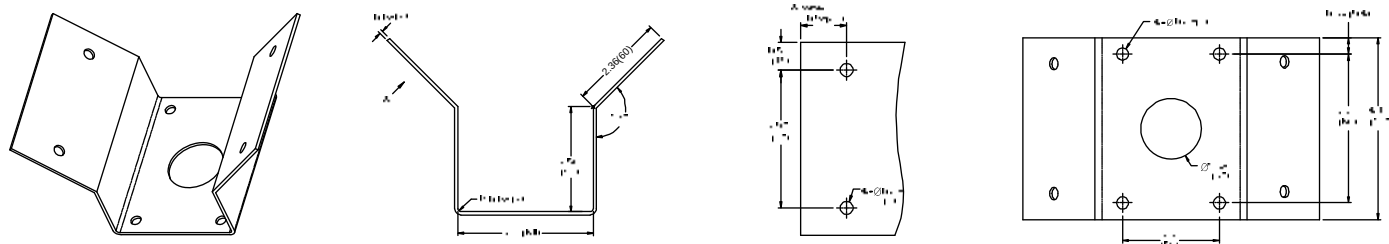
(Unit: inch, in the parentheses is mm)

Mounts & Adapters Dimensions

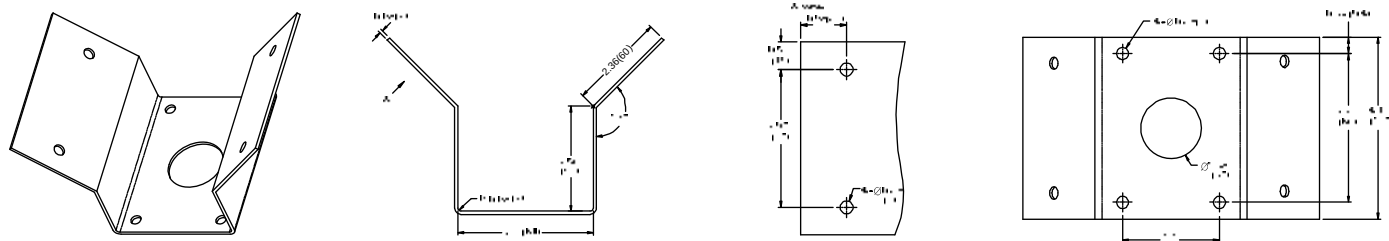
Bracket:



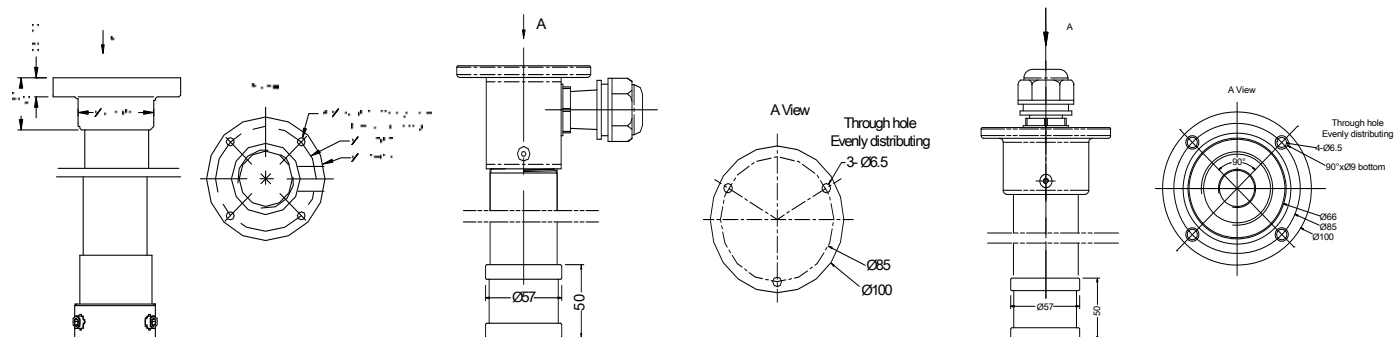
Corner Mount Adapter:



Pole Mount Adapter:



Pendant Mount Bracket:



V1720A E2 Series

Indoor Recessed Ceiling and Bracket Mount PTZ Dome Camera

Infinova[®]
The Integrator's Manufacturer



- **Infinova, Pelco-P/D protocol self-adaptive; compatible with Up-the-Coax protocol**
- **Both hard and soft addresses**
- **Smooth running, high sensitivity, low noise**
- **4 motion detection areas, associated with 2 alarm relays**
- **2 privacy mask modes**
- **254 presets, preset speed at max 400°/s, position precisely**
- **Super wide dynamic range (WDR), illumination ratio up to 128X**
- **Area zoom**
- **4 alarm inputs, 2 relay outputs, alarm associated with presets**
- **Surge and lightning protection: $\pm 2000\text{VA}$**
- **Practical anti-dropping design**

V1720A E2 series intelligent domes are the perfect combination of art and technology, leading the new trend of dome cameras. The domes feature auto focus, auto white balance, with 23X/28X/36X optical zoom and 12X digital zoom available. The domes can be controlled with the speed from 0.08°/s to 400°/s, with high sensitivity, smooth movement, and low noise.

254 presets and 4 patterns are provided, in which the presets can be called manually, or triggered by alarm inputs. Password Protection function can prevent the illegal users altering the inner parameters. Home Return function helps the users to call the scene that scheduled before without manual adjustment. The dome supports up to 16 Areas. Users can assign names and boundaries to these Areas; each Area can be a different size. The domes also feature 360° Rotation, Auto Flip, and Privacy Mask functions. On the client PC, the function of Zoom Selected Area is available.

Technical specifications

Lens

Optical Zoom	23X, 28X, 36X
Aperture/ Focal Length	23X: F1.6~F3.7; f=3.6~82.8mm 28X: F1.35~F3.7; f=3.5~98mm 36X: F1.6~F4.5; f=3.4~122.4mm
Angle of View	23X: 54° (Wide)/2.5° (Tele) 28X: 55.8° (Wide)/2.1° (Tele) 36X: 57.8° (Wide)/1.7° (Tele)
Min. Work Distance	23X: 0.01m (Wide) ~ 1.0m (Tele) 28X: 0.01m (Wide) ~ 1.5m (Tele) 36X: 0.32 m (Wide) ~ 1.5m (Tele)

Camera

Scanning System	2:1 Interlace Scanning
Image Sensor	23X: 1/4" Interlace Scan CCD 28X: 1/4" Interlace scan CCD 36X: 1/4" Progressive scan CCD
Effective Pixels (H×V)	PAL/440K: 752×582; NTSC/380K: 768×494
Sensitivity (23X)	Color Mode: 0.02 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC: 1/4s) B/W Mode: 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC: 1/4s)
Sensitivity (28X)	Color mode: 0.56 lux @ F1.35 (50IRE) (Typical); 0.09 lux (NTSC: 1/4s, PAL: 1/3s) (Typical) B/W Mode: 0.02 lux (NTSC: 1/4s, PAL: 1/3s)
Sensitivity (36X)	Color mode: 0.66 lux @F1.6 (30 IRE, PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s) B/W mode: 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s)
S/N Ratio	>50dB

Video

Video Type	PAL/NTSC (D/N)
Horizontal Resolution	23X: 540TVL 28X: 550TVL 36X: 550TVL
Video Output	1.0±0.2Vp-p

Communication

Protocols	INFINOVA, PELCO-P/D (self-adaptive), Up-the-Coax protocols optional
Number of Addresses	1~254
Baud Rate	2400/4800/9600bps optional

Operational

Manual Pan Speed	0.08°~200°/s
Manual Tilt Speed	0.2°~100°/s
Preset Speed	400°/s maximum
Pan Travel	360° continuous

Tilt Travel	-5°~90°
Preset Accuracy	±0.1°
Presets	254
Patterns	4
Autopans	4
Programmable Areas	16
Video Blanking Sectors	16
Spherical Privacy Zones	4 (23X) 24 (28X/36X)
Tours	6
Alarm Inputs	4 alarm inputs
Alarm Outputs	2 relay outputs
Motion Detection	Yes (28X/36X)
Home Return	Yes
Auto Scan	Yes
Image Mirror	Yes
WDR	23X: OFF/WDR/AD WDR/WDR*/AD WDR* 36X: OFF/DVER COMP/EXP RATIONAUTO
Stabilization	Yes (28X/36X)
FNR	23X: OFF/AUTO/MANU 28X: ON/OFF 36X: ON/OFF
Digital Zoom	1~12X adjustable
DSS	Yes
Focus	AUTO / MANU / M/A
White Balance	23X: AUTO/MANU/MERC/SODI 28X: AUTO/MANU/INDOOR/OUTDOOR/OUTDOOR AUTO/SODI/ATW 36X: AUTO/MANU/INDOOR/OUTDOOR/OUTDOOR AUTO/SODI/ATW
Shutter Speed	Auto: Default Set; Manual: 23X: PAL: 1/1.5~1/30000s, NTSC: 1/2~1/30000s; 28X: PAL: 1/1~1/10000s, NTSC: 1/1~1/10000s; 36X: PAL: 1/1~1/10000s, NTSC: 1/1~1/10000s
Iris	AUTO / MANU / M/A
Zoom Selected Area	Yes (PELCO-D)
Backlight Compensation	ON/OFF

Mechanical

Product Dimension (H×D)	Bracket: 11.5" × Φ8.6" (292mm × Φ218mm); Ceiling: 9.4" × Φ8.4" (240mm × Φ214mm)
Package Dimension (L×W×H)	19.09" × 11.02" × 11.81" (485mm × 280mm × 300mm)
Product Weight	Bracket: 7.1lbs (3.2kg), Ceiling: 6.2lbs (2.8kg)
Shipping Weight	Bracket: 10.6lbs (4.8kg), Ceiling: 9.5lbs (4.3kg)
Motor	Stepping motor
Mounting	Bracket, ceiling

Ordering information

Housing Material Cast Aluminum

Sync

Sync System Internal/Line-locked

Internal Synchronization Built-in sync generator

Line-locked Synchronization Remote V-phase adjustment

Electrical

Power Supply 12VDC, 24VAC

Power Consumption 12VDC: 18W;
24VAC: 25W

Power Surge Protection Yes

Environmental

Operating Temperature -4°F ~ 122°F (-20°C ~ +50°C)

Storage Temperature -4°F ~ 140°F (-20°C ~ +60°C)

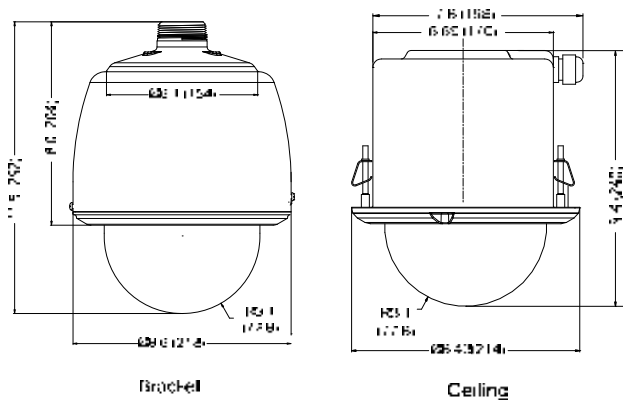
Operating Humidity 0~90%RH (non-condensing)

Certifications and Approval

Product Certifications CE/EMC: EN 55022, EN 55024, EN 61000-3-2,
EN 61000-3-3¹, FCC: Part15 Subpart B²,
ISO 9001:2008, UL

Certificate No.: ¹ BCT12HC-1418E; ² BCT12HC-1419E.

Dimensions



(Unit: inch, in the parentheses is mm)

Ordering information

PTZ Dome Camera Part Numbering

Type	Bubble	23X D/N	28X D/N	36X D/N
Indoor Recessed Ceiling Mount NTSC Camera 24VAC	Vandal-Resistant Clear	V1727A-C0C3C6E2	V1728A-C0C3C6E2	V1723A-C0C3C6E2
	Vandal-Resistant Smoked	V1727A-C0S3C6E2	V1728A-C0S3C6E2	V1723A-C0S3C6E2
Indoor Recessed Ceiling Mount PAL Camera 24VAC	Vandal-Resistant Clear	V1727A-C1C3C6E2	V1728A-C1C3C6E2	V1723A-C1C3C6E2
	Vandal-Resistant Smoked	V1727A-C1S3C6E2	V1728A-C1S3C6E2	V1723A-C1S3C6E2
Indoor Pendant Mount NTSC Camera 24VAC	Vandal-Resistant Clear	V1727A-C0C3B6E2	V1728A-C0C3B6E2	V1723A-C0C3B6E2
	Vandal-Resistant Smoked	V1727A-C0S3B6E2	V1728A-C0S3B6E2	V1723A-C0S3B6E2
Indoor Pendant Mount PAL Camera 24VAC	Vandal-Resistant Clear	V1727A-C1C3B6E2	V1728A-C1C3B6E2	V1723A-C1C3B6E2
	Vandal-Resistant Smoked	V1727A-C1S3B6E2	V1728A-C1S3B6E2	V1723A-C1S3B6E2

Part Number Extensions for Power Input Selection

12VDC	24VAC	EX: 12VDC Input	EX: 24VAC Input
5	6	V1727A-C0C3C5E2	V1727A-C0C3C6E2

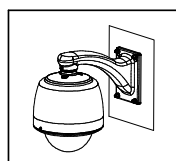
Accessories

V1761 Wall Mount, 10 inch horizontal, 1.5 inch NPT
V1761L Wall Mount, 17 inch horizontal, 1.5 inch NPT
V1762 Corner Mount, 10 inch horizontal, 1.5 inch NPT
V1763 Pole Mount, 10 inch horizontal, 1.5 inch NPT

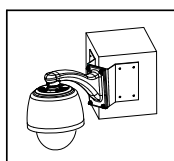
V1764 Pendant Mount, 15 inch long vertical, 1.5 inch NPT, indoor
V1766 Indoor Drop Ceiling Panel, 2 feet × 2 feet, pre-cut

For detailed information, refer to V1760 series indoor/outdoor dome mounts.

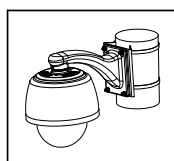
Mounting



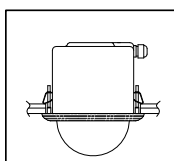
Wall Mounting



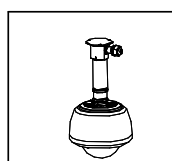
Corner Mounting



Pole Mounting



Indoor ceiling mount



Pendant Mounting

V1740A E2 Series

Outdoor Bracket Mount PTZ Dome Camera

Infinova[®]
The Integrator's Manufacturer



- **Infinova, Pelco-P/D protocol self-adaptive; compatible with Up-the-Coax protocol**
- **Both hard and soft addresses**
- **Smooth movement, high sensitivity, low noise**
- **4 motion detection areas, associated with 2 alarm relays**
- **2 privacy mask modes**
- **254 presets, preset speed at max 400°/s, position precisely**
- **Super wide dynamic range (WDR), illumination ratio up to 128X**
- **Area zoom**
- **4 alarm inputs, 2 relay outputs, alarm associated with presets**
- **Surge and lightning protection: $\pm 2000\text{VA}$**
- **IP 66 rating, built-in heater and air cycle system, freeze-proof**
- **Practical anti-dropping design**

V1740A E2 series intelligent domes are the perfect combination of art and technology, leading the new trend of dome cameras. The domes feature auto focus, auto white balance, with 23X/28X/36X optical zoom and 12X digital zoom available. The domes can be controlled with the speed from 0.08°/s to 400°/s, with high sensitivity, smooth movement, and low noise.

254 presets and 4 patterns are provided, in which the presets can be called manually, or triggered by alarm inputs. Password Protection function can prevent the illegal users altering the inner parameters. Home Return function helps the users to call the scene that scheduled before without manual adjustment. The dome supports up to 16 Areas. Users can assign names and boundaries to these Areas; each Area can be a different size. The domes also feature 360° Rotation, Auto Flip, and Privacy Mask functions. On the client PC, the function of Zoom Selected Area is available.

Technical specifications

Lens

Optical Zoom	23X, 28X, 36X
Aperture/ Focal Length	23X: F1.6~F3.7; f=3.6~82.8mm 28X: F1.35~F3.7; f=3.5~98mm 36X: F1.6~F4.5; f=3.4~122.4mm
Angle of View	23X: 54° (Wide)/2.5° (Tele) 28X: 55.8° (Wide)/2.1° (Tele) 36X: 57.8° (Wide)/1.7° (Tele)
Min. Work Distance	23X: 0.01m (Wide) ~ 1.0m (Tele) 28X: 0.01m (Wide) ~ 1.5m (Tele) 36X: 0.32 m (Wide) ~ 1.5m (Tele)

Camera

Scanning System	2:1 Interlace Scanning
Image Sensor	23X: 1/4" Interlace Scan CCD 28X: 1/4" Interlace scan CCD 36X: 1/4" Progressive scan CCD
Effective Pixels (H×V)	PAL/440K: 752×582; NTSC/380K: 768×494
Sensitivity (23X)	Color Mode: 0.02 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC: 1/4s) B/W Mode: 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC: 1/4s)
Sensitivity (28X)	Color mode: 0.56 lux @ F1.35 (50IRE) (Typical); 0.09 lux (NTSC: 1/4s, PAL: 1/3s) (Typical) B/W Mode: 0.02 lux (NTSC: 1/4s, PAL: 1/3s)
Sensitivity (36X)	Color mode: 0.66 lux @F1.6 (30 IRE, PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s) B/W mode: 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s)
S/N Ratio	>50dB

Video

Video Type	PAL/NTSC (D/N)
Horizontal Resolution	23X: 540TVL 28X: 550TVL 36X: 550TVL
Video Output	1.0±0.2Vp-p

Communication

Protocols	INFINOVA, PELCO-P/D (self-adaptive), Up-the-Coax protocol optional
Addresses	1~254
Baud Rate	2400/4800/9600bps optional

Operational

Manual Pan Speed	0.08°~200°/s
Manual Tilt Speed	0.2°~100°/s
Preset Speed	400°/s maximum
Pan Travel	360° continuous
Tilt Travel	-5°~90°

Preset Accuracy	±0.1°
Presets	254
Patterns	4
Autopans	4
Programmable Areas	16
Video Blanking Sectors	16
Spherical Privacy Zones	4 (23X) 24 (28X/36X)
Tours	6
Alarm Inputs	4 alarm inputs
Alarm Outputs	2 relay outputs
Motion Detection	Yes (28X/36X)
Home Return	Yes
Auto Scan	Yes
Image Mirror	Yes
WDR	23X: OFF/WDR/AD WDR/WDR*/AD WDR* 36X: OFF/DVER COMP/EXP RATIONAUTO
Stabilization	Yes (28X/36X)
FNR	23X: OFF/AUTO/MANU 28X: ON/OFF 36X: ON/OFF
Digital Zoom	1~12X adjustable
DSS	Yes
Focus	AUTO / MANU / M/A
White Balance	23X: AUTO/MANU/MERC/SODI 28X: AUTO/MANU/INDOOR/OUTDOOR/OUTDOOR AUTO/SODI/ATW 36X: AUTO/MANU/INDOOR/OUTDOOR/OUTDOOR AUTO/SODI/ATW
Shutter Speed	Auto: Default Set; Manual: 23X: PAL: 1/1.5~1/30000s, NTSC: 1/2~1/30000s; 28X: PAL: 1/1~1/10000s, NTSC: 1/1~1/10000s; 36X: PAL: 1/1~1/10000s, NTSC: 1/1~1/10000s
Iris	AUTO / MANU / M/A
Zoom Selected Area	Yes (PELCO-D)
Backlight Compensation	ON/OFF

Mechanical

Product Dimension (H×D)	11.5" × Φ9.4" (292mm × Φ240mm)
Package Dimension (L×W×H)	19.09" × 11.02" × 11.81" (485mm × 280mm × 300mm)
Product Weight	8.4lbs (3.8kg)
Shipping Weight	11.9lbs (5.4kg)
Motor	Stepping motor
Mounting	Bracket
Housing Material	Cast Aluminum

Technical specifications (continued)

Sync

Sync System	Internal/Line-locked
Internal Synchronization	Built-in sync generator
Line-locked Synchronization	Remote V-phase adjustment

Electrical

Power Supply	12VDC, 24VAC
Power Consumption	12VDC: 24W (with heater); 24VAC: 40W (with heater)
Power Surge Protection	Yes

Environmental

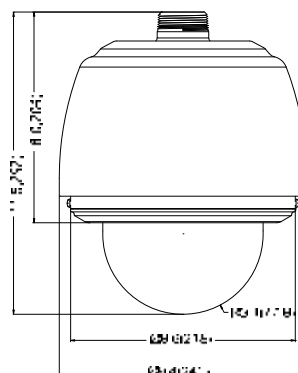
Operating Temperature	-40°F ~ 140°F (-40°C ~ +60°C)
Storage Temperature	-4°F ~ 140°F (-20°C ~ +60°C)
Operating Humidity	0~90%RH (non-condensing)
Rating	IP66

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ , FCC: Part15 Subpart B ² , ISO 9001:2008, UL
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Certificate No.: ¹ BCT12HC-1418E; ² BCT12HC-1419E.

Dimensions



Outdoor bracket

(Unit: inch, in the parentheses is mm)

Ordering information

PTZ Dome Camera Part Numbering

Type	Bubble	23X D/N	28X D/N	36X D/N
Outdoor Pendant Mount NTSC Camera 24VAC	Vandal-Resistant Clear	V1747A-C0C3B6E2	V1748A-C0C3B6E2	V1743A-C0C3B6E2
	Vandal-Resistant Smoked	V1747A-C0S3B6E2	V1748A-C0S3B6E2	V1743A-C0S3B6E2
Outdoor Pendant Mount PAL Camera 24VAC	Vandal-Resistant Clear	V1747A-C1C3B6E2	V1748A-C1C3B6E2	V1743A-C1C3B6E2
	Vandal-Resistant Smoked	V1747A-C1S3B6E2	V1748A-C1S3B6E2	V1743A-C1S3B6E2

Part Number Extensions for Power Input Selection

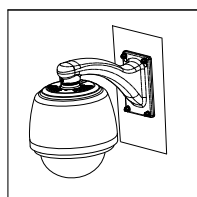
12VDC	24VAC	EX: 12VDC Input	EX: 24VAC Input
5	6	V1747A-C0C3C5E2	V1747A-C0C3C6E2

Accessories

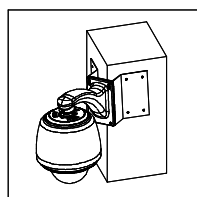
V1761	Wall Mount, 10 inch, 1.5 inch NPT	V1764B	Outdoor Pendant Mount, 15 inch, top opening for wiring, 1.5 inch NPT
V1761L	Wall Mount, 17 inch, 1.5 inch NPT	V1765	Over-roof Side wall mount, 12 inch, 1.5 inch NPT
V1762	Corner Mount, 10 inch, 1.5 inch NPT	V1765A	Over-roof horizontal Surface mount accessory, use together with V1765
V1763	Pole Mount, 10 inch, 1.5 inch NPT		
V1764A	Outdoor Pendant Mount, 15 inch, side opening for wiring, 1.5 inch NPT		

For detailed information, refer to V1760 series indoor/outdoor dome mounts.

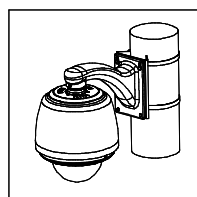
Mounting



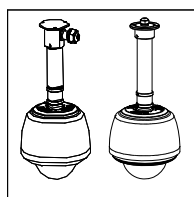
Wall Mounting



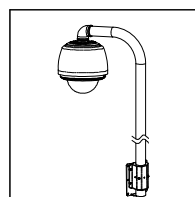
Corner Mounting



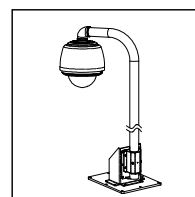
Pole Mounting



Pendant Mounting



Over-roof Side
Wall Mounting



Over-roof Horizontal
Surface Mounting

V1492 Series

Integrated High-speed PTZ Camera System

Infinova[®]
The Integrator's Manufacturer



- **Compatible with various SONY and HITACHI camera modules**
- **High-strength aluminum-alloy casting, heat-resistant, anti-corrosion**
- **Compatible with INFINOVA and PELCO-P/D protocols**
- **Up to 254 camera addresses**
- **Privacy mask**
- **Direction display**
- **360° continuous Pan rotation and +40°~-90° Tilt rotation**
- **Up to 100°/s Pan rotation speed and 30°/s Tilt rotation speed**
- **Window wiper, built-in heater and window defroster/defogger, applicable for various weather conditions**
- **Operational in 90 mph wind conditions; withstanding wind velocity of up to 130 mph**
- **IP66 environment rating**

V1492 series integrated high-speed PTZ camera system combines a decoder, a PTZ camera and housing, together with a programmable camera module and wiper. The camera module consists of an auto zoom camera and a lens. The wiper is installed directly onto the housing without affecting the camera's field of view. In addition, the wiper can be turned on/off via program control and is easily replaced.

Use of high-strength aluminum alloy materials makes V1492 series suitable for both indoor and outdoor applications. The system has an operating temperature range of -40°F~-140°F (-40°C~60°C). At a very low temperature, the built-in heater can be automatically enabled to ensure the system works normally. In addition, a built-in defroster and defogger can be enabled using program control to address harsh conditions.

The V1492 series enables the following rotation speed: 0.1°/s~50°/s for 360° continuous pan rotation; 0.1°/s~25°/s for +40°~-90° tilt rotation; 100°/s for Preset pan rotation; 30°/s for Preset tilt rotation. The cameras are powered by 24VAC/24VDC/110VAC/230VAC.

Technical specifications

Lens	
Optic Zoom	23X, 36X
Digital Zoom	1~12X Adjustable
Aperture/ Focal Length	23X: F1.6~F3.7; f=3.6~82.8mm 36X: F1.6- F4.5; f=3.4~122.4mm
Angle of View	23X: 54° (Wide)/2.5° (Tele) 36X: 57.8° (Wide)/1.7° (Tele)
Min. Work Distance	23X: 0.01m (Wide) ~ 1.0m (Tele) 36X: 0.32 m (Wide) ~ 1.5m (Tele)
Camera	
Scanning System	2:1 Interlace Scanning
Video Type	PAL/NTSC (D/N)
Image Sensor	1/4" Progressive scanning CCD
Effective Pixels (H×V)	PAL/440K: 752×582; NTSC/380K: 768×494
Sensitivity (23X)	Color Mode: 0.02 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC:1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC:1/4s) B/W Mode: 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC:1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC:1/4s)
Sensitivity (36X)	Color mode: 0.66 lux @F1.6 (30 IRE, PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s) B/W mode: 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC:1/4s)
S/N Ratio	>50dB
Sync System	Internal/External
Focus	Auto / Manual / M/A
Iris	Auto / Manual / M/A
Shutter Speed (23X)	Auto: Default Manual: PAL: 1/1.5~1/30000s; NTSC: 1/2~1/30000s
Shutter Speed (36X)	Auto: Default Manual: PAL: 1/1~1/10000s; NTSC: 1/1~1/10000s
DSS	Available
Image	
Horizontal Resolution	23X: 540TVL 36X: 550TVL
White Balance (23X))	AUTO/MANU/SODI/MERC
White Balance (36X)	AUTO/MANU/ATW/INDOOR/OUTDOOR
WDR	23X: OFF/WDR/AD WDR/WDR*/AD WDR* 36X: ON/OFF

FNR	23X: OFF/AUTO/MANU 36X: AUTO (5-level adjustable)/OFF
EIS	36X: ON/OFF
BLC	ON/OFF
Operational	
Decoder	INFINOVA, PELCO-P/D
Presets	254 (maximum)
Tours	6
Patterns	4
Auto Pan	4
Auto Scan	1
Spherical Privacy Zones	24 (36X) 4 (23X)
Video Blanking Sectors	16 areas
Interface	
Video Output	1.0±0.2Vp-p
Mechanical	
Variable Speed	Pan: 0.1°/s~50°/s; Tilt: 0.1°/s~25°/s
Preset Speed	Pan: 100°/s (max.); Tilt: 30°/s (max.)
Rotation Angle	Pan: 360°; Tilt: +40°~90°
Mounting	Surface, Wall, Pole Side, Corner, Pole Top
Physical	
Construction	High-strength aluminum alloy, stainless steel
Environmental Rating	IP66
Load	Pan: 22lbs. (10kg); Tilt: 7.7lbs. (3.5kg)
Product Weight	21.16lbs. (9.6kg)
Shipping Weight	30.86lbs (14kg)
Box Dimension (L×W×H)	22.99"×16.81"×10.00" (584mm×427mm×254mm)
Electrical	
Power Supply	24VAC/24VDC/110VAC/230VAC
Power Consumption	24VAC: 53W; 24VDC: 46W; 110VAC: 56W; 230VAC: 59W
Heater	Thermostatically controlled, Turn on at 50°F±9°F (10°C±5°C); Turn off at 86°F±9°F (30°C±5°C)
Environmental	
Atmospheric Pressure	≤1.5MPa
Operating Temp.	-40°F~140°F (-40°C~60°C)
Storage Temp.	-40°F~140°F (-40°C~60°C)
Operating Humidity	0~95%RH (non-condensing)
Certifications and Approval	
Product Certifications	CE ¹ , LVD ² , FCC ³ , ISO 9001:2008

Certificate No.: ¹ RSZ07121702-1&2; ² BCT08KC-880S; ³ RSZ07121702.

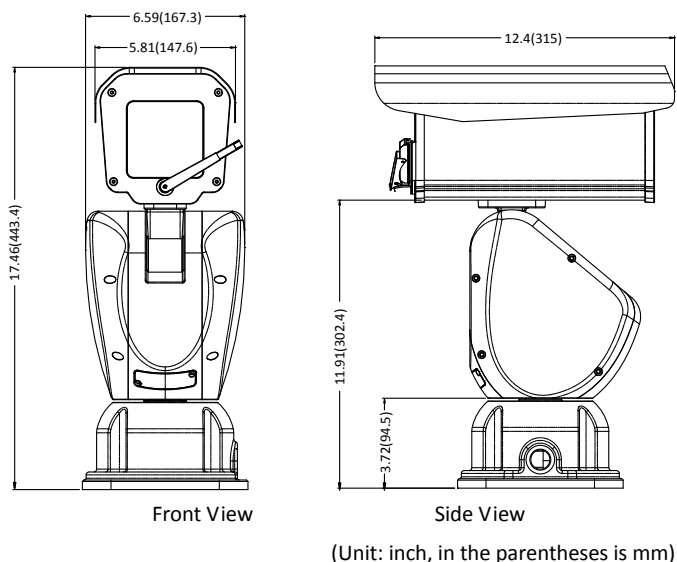
Ordering information

V1492-23A05	Integrated High-speed PTZ Camera System (23X, Day/night, NTSC, 24VDC)
V1492-36A05	Integrated High-speed PTZ Camera System (36X, Day/night, NTSC, 24VDC)
V1492-23A06	Integrated High-speed PTZ Camera System (23X, Day/night, NTSC, 24VAC)
V1492-36A06	Integrated High-speed PTZ Camera System (36X, Day/night, NTSC, 24VAC)
V1492-23A07	Integrated High-speed PTZ Camera System (23X, Day/night, NTSC, 110VAC)
V1492-36A07	Integrated High-speed PTZ Camera System (36X, Day/night, NTSC, 110VAC)
V1492-23A15	Integrated High-speed PTZ Camera System (23X, Day/night, PAL, 24VDC)
V1492-36A15	Integrated High-speed PTZ Camera System (36X, Day/night, PAL, 24VDC)
V1492-23A16	Integrated High-speed PTZ Camera System (23X, Day/night, PAL, 24VAC)
V1492-36A16	Integrated High-speed PTZ Camera System (36X, Day/night, PAL, 24VAC)
V1492-23A18	Integrated High-speed PTZ Camera System (23X, Day/night, PAL, 230VAC)
V1492-36A18	Integrated High-speed PTZ Camera System (36X, Day/night, PAL, 230VAC)

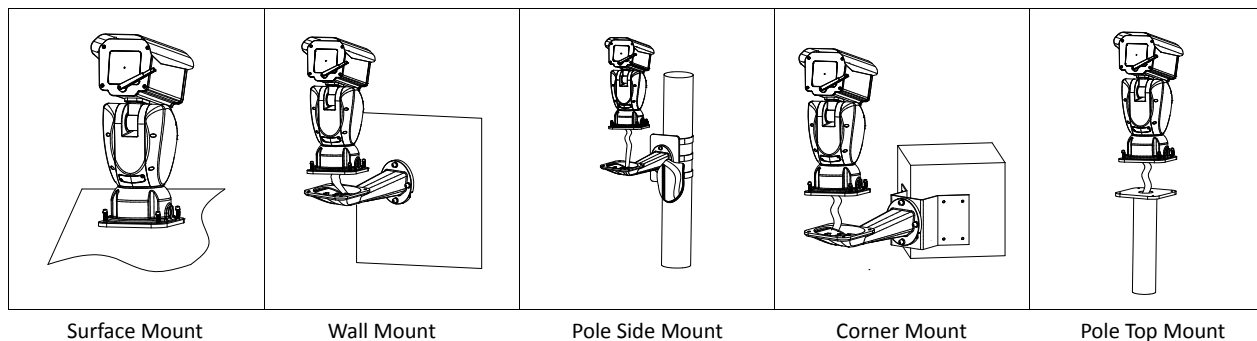
Recommended Installation Mounts

V1662-W1	Wall Mount, 15 inch
V1662-S1	Pole Side Mount, 15 inch
V1662-C1	Corner Mount, 15 inch

Dimensions



Mounting



V1492IR-1 Series

Integrated High-Speed PTZ Camera System with IR Illuminators

Infinova[®]
The Integrator's Manufacturer



- **Compatible with SONY camera module**
- **High strength aluminum-alloy casting, heat and corrosion resistant**
- **The coverage distance of LED Array up to 330 ft. (100 m) for nighttime viewing even in total darkness**
- **IR illuminator automatically turned on or off as per the ambient light, also under manual control**
- **Integrated with INFINOVA, PELCO-P/D protocol (Autosensing) and Up-the-coax protocol**
- **Sets address and baud rate via software or DIP switch, up to 254 selectable addresses**
- **254 presets, 6 tours, 4 patterns, 4 Auto-Pan and 1 Auto-Scan**
- **Home return**
- **Privacy mask**
- **Direction display**
- **16 programmable zones with 16 characters each**
- **360° continuous pan rotation**
- **Unobstructed +40° ~ -90° Vertical Tilt Range**
- **Window wiper, built-in heater and window defroster/defogger included**
- **Operational in 90 mph wind conditions; withstanding wind velocity of up to 130 mph**
- **IP 66 rating**

V1492IR-1 series integrated high-speed PTZ camera systems with IR illuminators represent a state-of-the-art line of indoor or outdoor cameras ideal for a variety of applications. The cameras feature a powder-coated, aluminum construction, and an integrated camera sled assembly. A built-in heater, window defroster/ defogger with wiper and sun shield are standard features on the V1492IR-1 series.

With a light wavelength of 850nm, the camera's coverage distance of LED array reaches 330 ft. (100 m) for nighttime viewing, even in total darkness. Low power consumption and a unique temperature control technology ensure a long IR illuminator service life. In addition, the system employs reinforcement seals to achieve high anti-vibration, dustproof and rain-proof standards.

The integrated camera module includes an auto focusing camera and a lens. The wiper is integrated directly onto the housing without affecting the camera's field of view. In addition, the wiper can be turned on/off via program control and is easily replaced.

Use of high-strength aluminum alloy materials makes it suitable for both indoor and outdoor applications. The system has an operating temperature range of -40°F~140°F (-40°C~60°C). At a very low temperature, the built-in heater can be automatically enabled to ensure the system works normally. In addition, a built-in defroster and defogger can be enabled using the program control to address harsh conditions.

The cameras are powered by 24VAC / 24VDC / 110VAC / 230VAC.

Technical specifications

Lens

Optic Zoom	23X, 36X
Digital Zoom	1~12X Adjustable
Aperture/ Focal Length	23X: F1.6~F3.7; f=3.6~82.8mm 36X: F1.6- F4.5; f=3.4~122.4mm
Angle of View	23X: 54° (Wide)/2.5° (Tele) 36X: 57.8° (Wide)/1.7° (Tele)
Min. Work Distance	23X: 0.01m (Wide) ~ 1.0m (Tele) 36X: 0.32 m (Wide) ~ 1.5m (Tele)

Camera

Scanning System	2:1 Interlace Scanning
Video Type	PAL/NTSC (D/N)
Image Sensor	1/4" Progressive scanning CCD
Effective Pixels (H×V)	PAL/440K: 752×582; NTSC/380K: 768×494
Sensitivity (23X)	Color Mode: 0.02 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC:1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC:1/4s) B/W Mode: 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/50s, NTSC:1/60s) 0.01 lux @F1.6 (30 IRE. AGC max. PAL: 1/3s, NTSC:1/4s) IR Mode: 0 lux
Sensitivity (36X)	Color mode: 0.66 lux @F1.6 (30 IRE, PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s) B/W mode: 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC:1/4s) IR Mode: 0 lux
S/N Ratio	>50dB
Sync System	Internal/External
Focus	Auto / Manual / M/A
Iris	Auto / Manual / M/A
Shutter Speed (23X)	Auto: Default Manual: PAL: 1/1.5~1/30000s; NTSC: 1/2~1/30000s
Shutter Speed (36X)	Auto: Default Manual: PAL: 1/1~1/10000s; NTSC: 1/1~1/10000s
DSS	Available

Image

Horizontal Resolution	23X: 540TVL 36X: 550TVL
White Balance (23X))	AUTO/MANU/SODI/MERC
White Balance (36X)	AUTO/MANU/ATW/INDOOR/OUTDOOR
WDR	23X: OFF/WDR/AD WDR/WDR*/AD WDR* 36X: ON/OFF

FNR	23X: OFF/AUTO/MANU 36X: AUTO (5-level adjustable)/OFF
EIS	36X: ON/OFF
BLC	ON/OFF

Operational

Decoder	INFINOVA, PELCO-P/D
Presets	254
Tours	6
Patterns	4
Auto Pan	4
Auto Scan	1
Address	1~254
Spherical Privacy Zones	24 (36X) 4 (23X)
Video Blanking Sectors	16 areas

Interface

Video Output	1.0±0.2Vp-p
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Mechanical

Variable Speed	Pan: 0.1°/s~50°/s; Tilt: 0.1°/s~18°/s
Preset Speed	Pan: 100°/s (max.); Tilt: 30°/s (max.)
Rotation Angle	Pan: 360°; Tilt: +40°~90°
Mounting	Surface, Wall, Pole Side, Corner

Physical

Construction	High-strength aluminum alloy, stainless steel
Environmental Rating	IP66
IR LED	Wave length: 850nm; Coverage distance: 330ft (100m)
Load	Pan: 22lbs. (10kg); Tilt: 7.7lbs. (3.5kg)
Product Weight	24.25 (11kg)
Shipping Weight	31.31 lbs (14.2kg)
Box Dimension (L×W×H)	22.99"×16.81"×10.00" (584mm×427mm×254mm)

Electrical

Power Supply	24VAC/24VDC/110VAC/230VAC
Power Consumption	144W (max.)
Heater	Thermostatically controlled, Turn on at 50°F±9°F (10°C±5°C); Turn off at 86°F±9°F (30°C±5°C)

Environmental

Atmospheric Pressure	≤1.5MPa
Operating Temp.	-40°F~140°F (-40°C~60°C)
Storage Temp.	-40°F~140°F (-40°C~60°C)
Operating Humidity	0~95%RH (non-condensing)

Certifications and Approval

Product Certifications	CE, LVD, FCC, ISO 9001:2008
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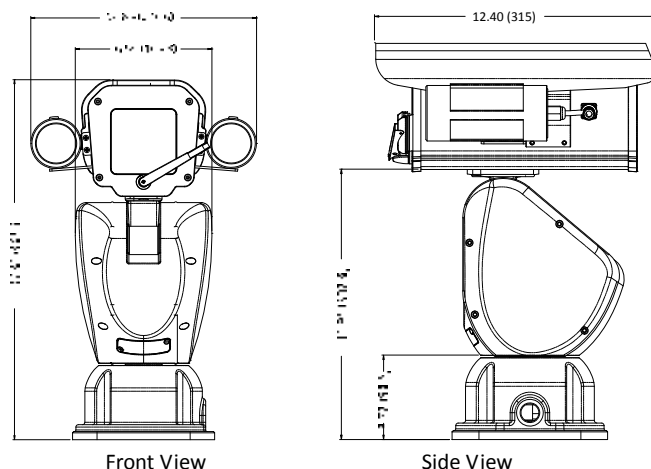
Ordering information

V1492IR-23A05-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 23X optical zoom, Day/night, NTSC, 24VDC
V1492IR-36A05-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 36X optical zoom, Day/night, NTSC, 24VDC
V1492IR-23A06-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 23X optical zoom, Day/night, NTSC, 24VAC
V1492IR-36A06-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 36X optical zoom, Day/night, NTSC, 24VAC
V1492IR-23A07-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 23X optical zoom, Day/night, NTSC, 110VAC
V1492IR-36A07-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 36X optical zoom, Day/night, NTSC, 110VAC
V1492IR-23A15-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 23X optical zoom, Day/night, PAL, 24VDC
V1492IR-36A15-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 36X optical zoom, Day/night, PAL, 24VDC
V1492IR-23A16-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 23X optical zoom, Day/night, PAL, 24VAC
V1492IR-36A16-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 36X optical zoom, Day/night, PAL, 24VAC
V1492IR-23A18-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 23X optical zoom, Day/night, PAL, 230VAC
V1492IR-36A18-1	Analog Integrated High-speed PTZ Camera System with IR Illuminators, 36X optical zoom, Day/night, PAL, 230VAC

Recommended Installation Mounts

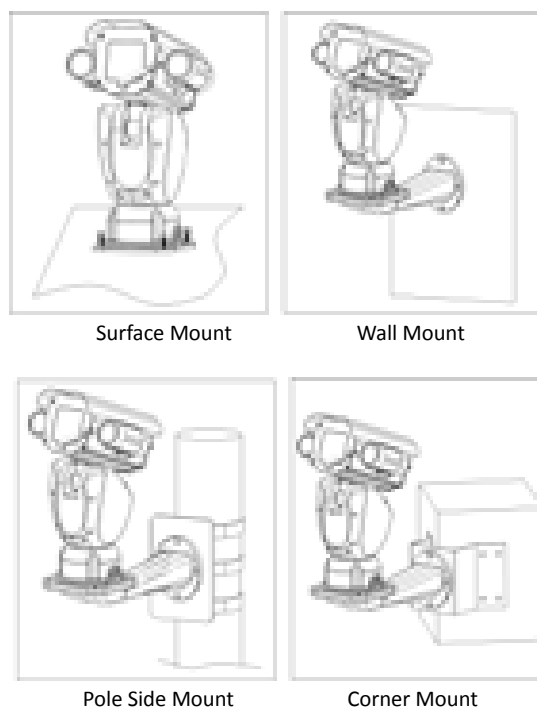
V1662-W1	Wall Mount, 15 inch
V1662-S1	Pole Side Mount, 15 inch
V1662-C1	Corner Mount, 15 inch

Dimensions



(Unit: inch, in the parentheses is mm)

Mounting



Camera Accessories

V1112 Series

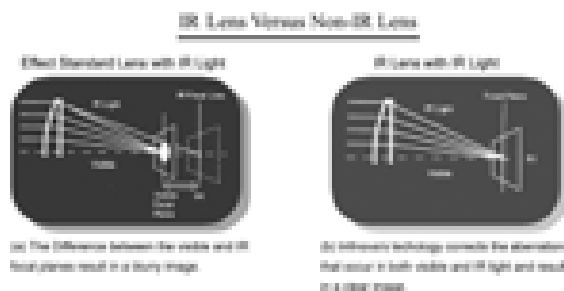
IR Fixed-Focal 1/3" Lenses w/DC Auto Iris

Infinova[®]
The Integrator's Manufacturer



- **4.0 mm and 8.0 mm focal lengths**
- **DC auto iris**
- **Functions in both visible and IR wavelength ranges, and is well suited for day/night cameras**
- **Dynamic auto aperture range from F/1.2 ~ F/360 under visible light conditions**
- **Multi-coated**
- **Locking mechanism built into rings**
- **Built-in slip mount mechanism**
- **Environmentally conscious design**
- **Light weight and compact chassis**

V1112 series IR fixed-focal 1/3" lenses w/DC auto iris correct aberrations that occur in both visible light and infrared (IR) light, producing a clear image under either type of lighting. The lenses are multi-coated to reduce ghosting and flare caused by backlighting, ensuring high contrast even under such adverse conditions. They are available in 4.0 mm and 8.0 mm focal lengths.



Technical specifications

Image Size	1/3"
Mount	CS
Focal Length	V1112-4: 4.0 mm; V1112-8: 8.0 mm
Aperture	F/1.2 ~ F/360
Angle of View (Horizontal × Vertical)	V1112-4: 65.6°×49.7°; V1112-8: 34.5°×25.7°
Iris	DC auto iris
Focus	Manual

Minimum Object Distance	0.66 ft. (0.2 m)
Maximum Barrel Diameter	1.36" (34 mm Ø)
Length	1.38" (35 mm)
Weight	0.088 lbs. (40 g)
Certifications and Approval	
Product Certifications	CE, ISO 9001: 2008

Ordering information

V1112-4	Lens, IR correction, f=4.0mm, F/1.2, DC auto iris, 1/3 inch, CS
V1112-8	Lens, IR correction, f=8.0mm, F/1.2, DC auto iris, 1/3 inch, CS

V1122 Series

Vari-Focal 1/3" Lenses w/DC Auto Iris

Infinova[®]
The Integrator's Manufacturer



- **3~8 mm, 2.8~12 mm and 5~50 mm vari-focal**
- **Available in DC auto iris**
- **Dynamic auto aperture down to F/360 under visible light conditions**
- **Aspherical technology provides high image quality**
- **Multi-coated**
- **Locking mechanism built into rings**
- **Built-in slip mount mechanism**

V1122 series vari-focal 1/3" lenses w/DC auto irises provide tremendous installation flexibility by allowing a wide range of adjustment to get exactly the coverage required. The lenses are multi-coated to reduce ghosting and flare caused by backlighting, ensuring high contrast even under such adverse conditions. They are available in 3~8 mm, 2.8~12 mm and 5~50 mm vari-focal lengths.

Technical specifications

Image Size	1/3"
Mount	CS
Focal Length	V1122-308: 3.0~8 mm; V1122-2812: 2.8~12 mm; V1122-550: 5.0~50 mm
Aperture	V1122-308: F/1.0 ~ F/360; V1122-2812: F/1.4 ~ F/360; V1122-550: F/1.4 ~ F/360
Angle of View (Horizontal × Vertical)	V1122-308: 91.0°×66.6° (Wide), 35.9°×26.9° (Tele); V1122-2812: 97.4°×72.5° (Wide), 24.1°×18.1° (Tele); V1122-550: 53.6°×40.3° (Wide), 5.6°×4.2° (Tele)
Iris	DC auto iris
Focus	Manual

Zoom	Manual
Minimum Object Distance	V1122-308: 0.66 ft. (0.2 m); V1122-2812: 1.0 ft. (0.3 m); V1122-550: 3.28 ft. (1.0 m)
Maximum Barrel Diameter	V1122-308: 1.30" (33 mm Ø); V1122-2812: 1.61" (41 mm Ø); V1122-550: 1.57" (40 mm Ø)
Length	V1122-308: 1.65" (42 mm); V1122-2812: 2.32" (59 mm); V1122-550: 2.32" (59 mm)
Weight	V1122-308: 0.104 lbs. (47 g); V1122-2812: 0.157 lbs. (71 g); V1122-550: 0.185 lbs. (84 g)

Certifications and Approval

Product Certifications	CE, ISO 9001: 2008
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Ordering information

V1122-308	Lens, f=3.0-8mm, F/1.0, DC auto iris, 1/3 inch, CS
V1122-2812	Lens, f=2.8-12mm, F/1.4, DC auto iris, 1/3 inch, CS
V1122-550	Lens, f=5-50mm, F/1.4, DC auto iris, 1/3 inch, CS

V1132 Series

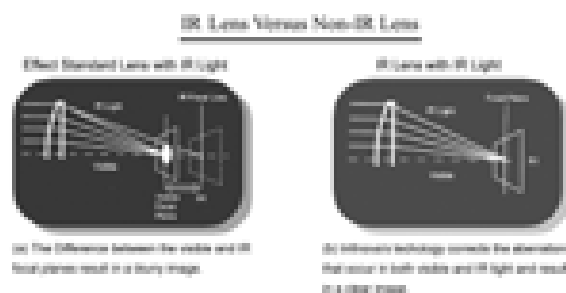
IR Vari-Focal 1/3" Lenses w/DC Auto Iris

Infinova[®]
The Integrator's Manufacturer



- **3.0~8.5 mm, 2.8~12 mm and 7.5~50 mm vari-focal**
- **Available in DC auto iris**
- **Functions in both visible and IR wavelength range are well suited for day/night cameras**
- **High quality image based on aspherical technology**
- **Multi-coated**
- **Environmentally conscious design**

V1132 series IR vari-focal 1/3" lenses w/DC auto irises provide tremendous installation flexibility by allowing a wide range of adjustment to get exactly the coverage required. They also correct aberrations that occur in both visible light and infrared (IR) light, producing a clear image under either type of lighting. The lenses are multi-coated to reduce ghosting and flare caused by backlighting, ensuring high contrast even under such adverse conditions. They are available in 3.0~8.5 mm, 2.8~12 mm and 7.5~50 mm vari-focal lengths.



Technical specifications

Image Size	1/3"
Mount	CS
Focal Length	V1132-3085: 3.0~8.5 mm; V1132-2812: 2.8~12 mm; V1132-7550: 7.5~50 mm
Back Focus	V1132-3085: 7.94~13.96 mm; V1132-2812: 8.1~20.2 mm; V1132-7550: 11.96~9.61 mm
Mechanical Bf	V1132-3085: 7.94 mm; V1132-2812: 8.1 mm; V1132-7550: 8.1 mm
Iris Range	V1132-3085: F/1.0~ F/360; V1132-2812: F/1.2~ F/360; V1132-7550: F/1.3~ F/360
Focus Range	V1132-3085: 0.2 m~ infinity; V1132-2812: 0.2 m~ infinity; V1132-7550: 0.4 m~ infinity
Zoom Range	V1132-3085: 3.0~8.5 mm; V1132-2812: 2.8~12 mm; V1132-7550: 7.5~50 mm
Front/Rear Aperture	V1132-3085: Ø 20.1 mm / Ø 9.0 mm; V1132-2812: Ø 20.9 mm / Ø 8.9 mm; V1132-7550: Ø 25.7 mm / Ø 9.8 mm

Angle of View (Horizontal × Vertical)	V1132-3085: 90.5°×67.2° (Wide), 33.6°×25.2° (Tele); V1132-2812: 98.5°×73° (Wide), 23.8°×17.8° (Tele); V1132-7550: 36.6°×27.4° (Wide), 5.64°×4.26° (Tele)
Iris	DC auto iris
Focus	Manual
Zoom	Manual
Dimensions (ØW×H×L)	V1132-3085: 1.38"×1.87"×1.81" (35 mm×47.4 mm×46 mm); V1132-2812: 1.38"×1.89"×2.10" (35 mm×47.9 mm×53.3 mm); V1132-7550: 1.50"×1.97"×2.17" (38 mm×50.1 mm×55.2 mm)
Driving Coil / Damping Coil	V1132-3085: 190 Ohm / 855 Ohm; V1132-2812: 190 Ohm / 855 Ohm; V1132-7550: 190 Ohm / 1310 Ohm
Certifications and Approval	
Product Certifications	CE, ISO 9001: 2008

Ordering information

V1132-3085	Lens, IR correction, f=3.0-8.5mm, F/1.0, DC auto iris, 1/3 inch, CS, Aspherical
V1132-2812	Lens, IR correction, f=2.8-12mm, F/1.2, DC auto iris, 1/3 inch, CS, Aspherical
V1132-7550	Lens, IR correction, f=7.5-50mm, F/1.3, DC auto iris, 1/3 inch, CS, Aspherical

V1162 Series

Motorized Zoom 1/3" Lenses w/DC Auto Iris

Infinova[®]
The Integrator's Manufacturer



- **6~60 mm focal length**
- **Available in DC auto iris**
- **Built-in slip mount mechanism, and detachable connection design for easy installation**
- **Multi-coated**
- **Environmentally conscious design**

V1162 series high definition motorized zoom lenses provide a 10:1 ratio zoom, allowing surveillance personnel to quickly and dependably adjust the camera view. They also correct aberrations that occur in visible light, producing a clear image. The lenses are multi-coated to reduce ghosting and flare caused by backlighting, ensuring high contrast even under such adverse conditions. They have a 6~60 mm focal length.

Technical specifications

Image Size	1/3"
Mount	CS
Focal Length	6~60 mm
Aperture	F/1.4~ F/360
Angle of View (Horizontal × Vertical)	43.4°x32.7° (Wide); 4.5°x3.4° (Tele)
Iris	DC auto iris
Focus	Motorized
Zoom	Motorized
Minimum Object Distance	3.94 ft. (1.2 m)
Maximum Barrel Diameter	2.8" W, 2.8" H (70 mm, 70 mm)
Filter Dimension	2.05" (52 mm)
Length	4.41" (112 mm)
Weight	0.84 lbs. (380 g)
Certifications and Approval	
Product Certifications	CE, ISO 9001: 2008

Ordering information

V1162-6x10	Motorized zoom Lens, f=6-60mm, F/1.4, DC auto iris, 1/3 inch, CS
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V1182-3108R Series

HD 3MP IR Vari-Focal 1/2.7" Lenses w/DC Auto Iris

Infinova[®]
The Integrator's Manufacturer



- **3 Mega pixels**
- **DC auto iris**
- **Wide aperture of F1.2, optimizing the performance at low lighting intensity**
- **Broad range of f3.1~8mm, adapting various applications**
- **Precise Focus Adjustment**
- **IR corrected optics is suitable for day/night cameras**
- **Compact, light weight and robust design**

V1182-3108R series HD 3MP IR lenses adopt the latest IR corrected, aspherical and ED (Extra-low Dispersion) optics, offering precise focus adjustment. Focus ring adjusting range can reach 180°.

The lenses are able to correct the chromatic aberrations that occur in both visible light and infrared (IR) light, producing superb images under all kinds of light conditions. They can present clear images even the IR wavelength is 950nm. Unique HD optical design provides larger image circle for exceptional brightness and clarity in corners and throughout image plane.

Technical specifications

Image Size		1/2.7"
Mount		CS
Focal Length		3.1~8mm
Aperture		F1.2~F360C
Angle of View	D	123.1° ~ 48.3°
	H	105.4° ~ 42.2°
	V	57.9° ~ 23.8°
Iris		Auto (DC drive)
Focus		Manual
Zoom		Manual
Focusing Range		0.3m~∞
Effective Lens Aperture	Front	Ø20.9mm
	Rear	Ø10.5mm
Back Focal Length	Tele	7.8mm
	Wide	7.8mm
Flange Back Length		12.5mm
Weight		0.13 lbs. (59g)
Dimensions (Ø×L×W)		1.46"×2.17"×1.90" (37mm×55mm×48.2mm)
Coil	Drive	190 Ohm
Resistance	Damping	855 Ohm
Operating Current		76 mA (Max.) at DC 4V
Operating Temperature		14°F~122°F (-10°C ~ 50°C)

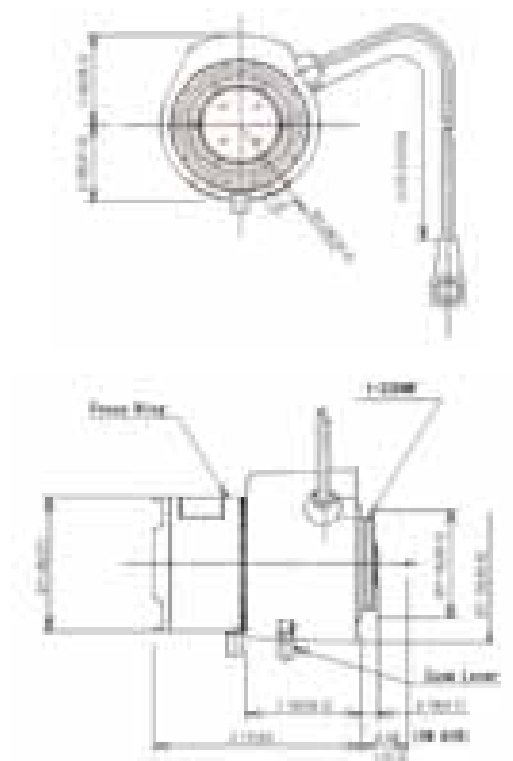
Certifications and Approval

Product Certifications	CE, ISO 9001: 2008
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Ordering information

V1182-3108R Lens, 3 Mega pixels, IR correction, f=3.1-8mm,
F/1.2, DC auto iris, 1/2.7 inch, CS, Aspherical

Dimensions



(Unit: inch, in the parentheses is mm)

V1182-1250R Series

HD 3MP IR Vari-Focal 1/2.7" Lenses w/DC Auto Iris

Infinova[®]
The Integrator's Manufacturer



- **3 Mega pixels**
- **DC auto iris**
- **Wide aperture of F1.4, optimizing the performance at low lighting intensity**
- **Broad range of f12.5~50mm, adapting various applications**
- **Precise Focus Adjustment**
- **IR corrected optics is suitable for day/night cameras**
- **Compact, light weight and robust design**

V1182-1250R series HD 3MP IR lenses feature high accuracy aspherical, IR corrected and ED (Extra-low Dispersion) optics, which optimize focusing and imaging. The lenses are able to correct the chromatic aberrations that occur in both visible light and infrared (IR) light, producing superb images under all kinds of light conditions. Besides, excellent coating technology is help to eliminate ghosting and flare.

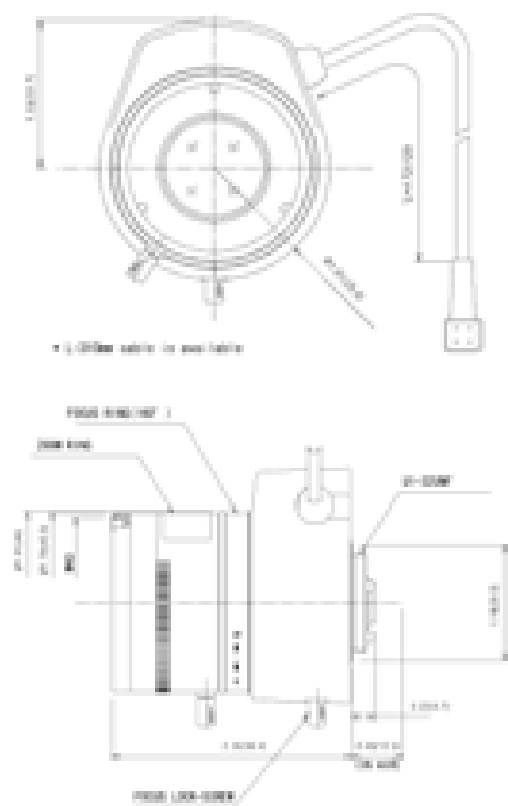
Technical specifications

Image Size		1/2.7"
Focal Length		12.5~50mm
Aperture		F1.4~F360C
Max. Image Format		3.2mm × 5.8mm(φ 6.6mm)
Angle of View	D	30.3° ~ 7.7°
	H	26.3° ~ 6.7°
	V	14.5° ~ 3.8°
Iris		Auto (DC drive)
Focus		Manual
Zoom		Manual
Focusing Range		1.0m~∞
Effective Lens Aperture	Front	Ø21.7mm
	Rear	Ø9.1mm
Back Focal Length	Tele	7.3mm
	Wide	11.6mm
Flange Back Length		12.5mm
Mount		CS
Filter Size		M43 P=0.75mm
Weight		0.18 lbs. (83g)
Dimensions (Ø×L×W)		1.81"×2.30"×2.34" (46mm×58.4mm×59.3mm)
Coil	Drive	190 Ohm
Resistance	Damping	855 Ohm
Operating Temperature		14°F~122°F (-10°C ~ 50°C)
Certifications and Approval		
Product Certifications		CE, ISO 9001: 2008

Ordering information

V1182-1250R Lens, 3 Mega pixels, IR correction, f=12.5-50mm, F/1.4, DC auto iris, 1/2.7 inch, CS, Aspherical

Dimensions



(Unit: inch, in the parentheses is mm)

V1182-2812R Series

HD 2MP IR Corrected Lens

Infinova[®]
The Integrator's Manufacturer



- **4.3X vari-focal mega CS mount lens**
- **DC iris**
- **1/2.7" 2M/1080P HD sensor**
- **2.8~12mm focal length**
- **1:1.2 max., aperture of ratio (F/#1.2)**
- **Compact structure, easy to install**

V1182-2812R series HD 2MP IR corrected lens can be fitted into such a compact package, like superb color reproduction and smooth images under moving objects. It's an innovative lens design technology and covers every detail in surveillance market.

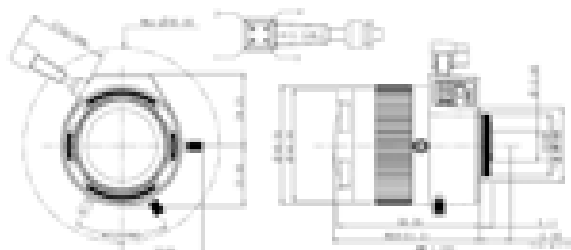
Technical specifications

General Specification	Sensor	1/2.7" HD Sensor (2M)
	Mount Type	CS Mount
Optical Specification	Focal Length	2.8mm(W)~12mm(T) (Comply to OV2715 1/2.7" 2M CMOS)
	Max. Aperture Ratio	1:1.2 (F/#1.2 +/-5%)
	Field of View	Wide: H: 118.3 ° ; V: 63.6 ° ; D:139.1 ° Tele: H: 29.1 ° ; V: 16.5° ; D: 33.4°
	Total Length (TTL)	70.62mm(W)~47.89mm(T) (from 1st surface of lens to image sensor ; CG=0.5mm)
	Maximum Chief Ray Angle	<10°
	Back Focal Length (BFL)	Wide: 8.04mm (with 0.5mm CG) Tele: 17.66m (with 0.5mm CG)
	Focus Range	1.5m ~ INF
	Front Barrel size	46 mm
	Wavelength Range	440nm~1000nm
	IRIS/IR Cut	DC Motor IRIS
	RoHS/Green Design/WEEE	Comply
Certifications and Approval		
Product Certifications		CE, FCC, ISO 9001: 2008

Ordering information

V1182-2812R HD 2MP IR corrected lens, 1/2.7", f=2.8-12mm, DC iris, CS mount, F/1.2

Dimensions



(Unit: mm)

V1182-0550R Series

HD 1.3MP IR Vari-Focal 1/3" Lenses w/DC
Auto Iris

Infinova[®]
The Integrator's Manufacturer



- **1.3Mpx**
- **DC auto iris**
- **Able to correct the chromatic aberrations that occur in both visible light and infrared (IR) light, applicable for day/night camera**
- **Aspherical lens to offer you excellent image of high resolution and contrast**
- **Compact structure, easy to install**

Infinova's V1182-0550R series HD 1.3MP IR lenses which feature wide aperture of F1.6 and broad range of 5-50mm are particularly suitable for day/night camera. Able to correct the chromatic aberrations that occur in both visible light and infrared (IR) light, this series lens offers you superb images under all kinds of light conditions.

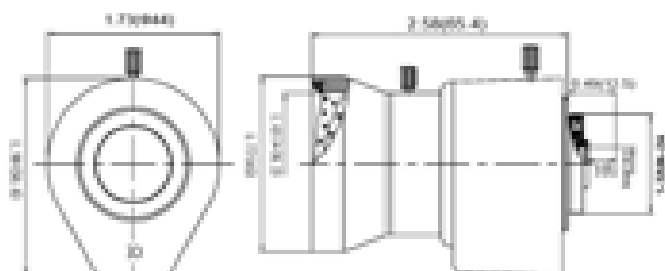
Technical specifications

Sensor		CCD/CMOS
Image Size		1/3"
Focal Length		5-50mm
Aperture (F/#)		1.6~360
Operation	Zoom	Manual
	Focus	Manual
	Iris	Auto (DC drive)
Angle of View (F.O.V.) (D/H/V)		63.5°~7.2°/50°~5.7°/36.5°~4.3°°
Back Focal Length		7.57~11.87mm
Effective Aperture	Front	Ø36.2mm
	Back	Ø8.6mm
Mount		CS
Dimensions (Ø×L×W)		1.77"×2.57"×1.99" (45mm×65.4mm×50.6mm)
M.O.D		0.2m~1.8m
Lens Construction		12-10
Certifications and Approval		
Product Certifications		CE, ISO 9001: 2008

Ordering information

V1182-0550R Lens, 1.3 Mega pixels, IR correction, f=5-50mm, F/1.6,
DC auto iris, 1/3"inch, CS, Aspherical

Dimensions



(Unit: inch, in the parentheses is mm)

V1182-3312R Series

HD 2 MP IR Vari-Focal 1/2.7" Lenses w/DC Auto Iris

Infinova[®]
The Integrator's Manufacturer



- **2.0 Mpx**
- **DC auto iris**
- **Able to correct the chromatic aberrations that occur in both visible light and infrared (IR) light, applicable for day/night camera**
- **Aspherical lens to offer you excellent image of high resolution and contrast**
- **Compact structure, easy to install**

Infinova's V1182-3312R series megapixel IR vari-focal lens which features wide aperture of F1.4 and broad range of 3.3-12mm is particularly suitable for day/night camera. Able to correct the chromatic aberrations that occur in both visible light and infrared (IR) light, this series lens offers you superb images under all kinds of light conditions.

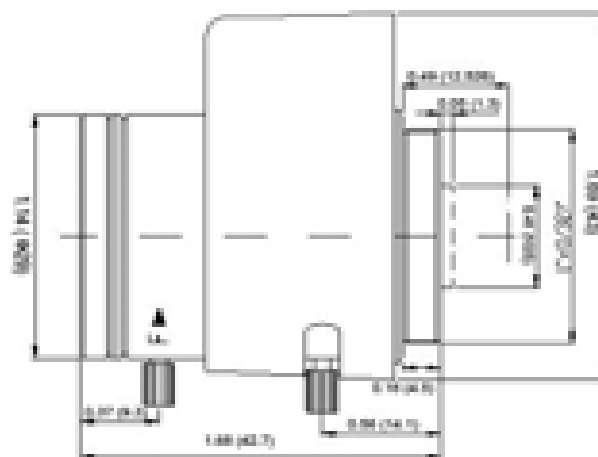
Technical specifications

Image Size		1/2.7"
Focal Length		3.3-12mm
Aperture (Max.)		1/1.4
Operation	Zoom	Manual
	Focus	Manual
	Iris	Auto (DC drive)
Angle of View (Horizontal)		79.3°~29.8°
Mount		CS
M.O.D		0.2m
Operating Voltage	C→O	0.9V~3V
	O→C	0.5V min
Coil Resistance		Driving Coil: 200 Ohm±10% ; Damping Coil : 560 Ohm±10%
Dimensions (Ø×L×W)		1.14"×1.68"×1.69" (29mm×42.7mm×43mm)
Weight		0.13lbs. (61.2g)
Certifications and Approval		
Product Certifications		CE, ISO 9001: 2008

Ordering information

V1182-3312R Lens, 2.0 Mega pixels, IR correction, f=3.3-12mm, F/1.4,
DC auto iris, 1/2.7"inch, CS, Aspherical

Dimensions



(Unit: inch, in the parentheses is mm)

V1283 Series

IR Illuminators

Infinova[®]
The Integrator's Manufacturer



- **Indoor/outdoor**
- **IR LED technology**
- **Automatic optical control**
- **Weather Resistant**
- **IR ranges of 328 ft. (100 m)**

V1283 series IR illuminators allow IR sensitive cameras to provide surveillance even in total darkness at ranges up to 328 feet.

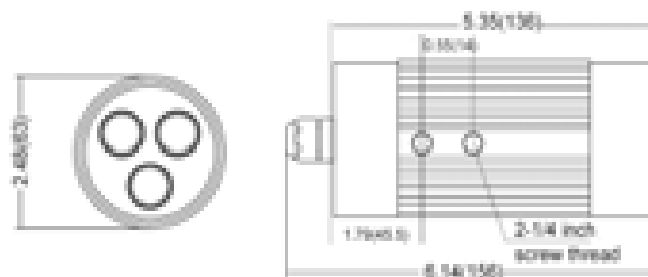
Technical specifications

Radiant Distance	328' (100 m)
Beam Angle	18°
Wavelength	850 nm
Power Supply	12 VDC
Power Consumption	6 W
Operating Temperature	-40°F ~ 140°F (-40°C ~ 60°C)
Dimensions	Ø2.48" × L5.35" (Ø63mm × L136mm)
Weight	1.380 lbs. (0.626 kg)

Ordering information

V1283-100-1 IR Illuminator, 328 feet (100 m), LED, 18 deg., 850 nm, 12 VDC

Dimensions



(Unit: inch, in the parentheses is mm)

V1405 Series

Indoor/Outdoor Mini Camera Housing

Infinova[®]
The Integrator's Manufacturer



- **Spring loaded top cover**
- **Rear lock-in latch connection**
- **Die-cast aluminum**
- **Indoor/outdoor installations**
- **IP66 standard**
- **Easy installation and maintenance**
- **Cable clamps and installation holes on the housing bottom**

The V1405 series are affordable die-cast aluminum camera housings for both indoor and outdoor installations. The V1405 housings accommodate CCD cameras with fixed or vari-focal lens. The top cover is spring loaded to facilitate installation. There are two adjustable weatherproof cable clamps on the bottom for easy installation of video and power cables. A rear lock-in latch secures the spring-loaded cover for added security. The V1405 have a set of optional accessories which can be installed at the factory, including sunshield and heater. The input voltage is available in 24 VAC. The V1405 are compatible with small to medium size cameras, and can be installed on either fixed mounts or pan/tilts.

Technical specifications

Electrical	
Input Voltage	24 VAC, 50/60 Hz
Power Consumption	25 W
Physical	
Camera Mounting	Multiple installation holes available on the camera supporting board, which is installed on the two narrow slots in the bottom groove for easy disassembly.
Internal Usable Dimensions (L×W×H)	V1405-7: 6.85"×3.54"×2.85" (174 mm×90 mm×72.5 mm) V1405-10: 9.84"×3.54"×2.85" (250 mm×90 mm×72.5 mm)
Window Thickness	0.16" (4 mm)
Window Dimensions (W×H)	2.64"×2.24" (67 mm×57 mm)
Cable Input	Two compressed cable glands with the max diameter of 0.48" (12 mm) available on the bottom
Lock-in Latch	Stainless steel; padlock (not included) can also be used to secure

Construction	Die-cast aluminum
Box Dimensions (L×W×H)	V1405-7: 19.49"×6.50"×6.26" (495 mm×165 mm×159 mm) V1405-10: 19.49"×6.50"×6.26" (495 mm×165 mm×159 mm)
Unit Weight	V1405-7: 4.19 lbs. (1.9 kg); V1405-10: 5.73 lbs. (2.6 kg)
Shipping Weight	V1405-7: 4.41 lbs. (2 kg) V1405-10: 5.95 lbs. (2.7 kg)
Environmental	
Auto Controlled Temperature	Heater: Turns on at 46°F ± 9°F (8°C ± 5°C); Turns off at 68°F ± 9°F (20°C ± 5°C)
Environment	Indoor/outdoor
Operating Temperature	23°F ~140°F (-5°C ~ 60°C); -13°F ~140°F (-25°C ~ 60°C) (w/ heater)
Certifications and Approval	
Product Certifications	CE, ISO 9001: 2008

Ordering information

V1405-7	Camera housing, indoor/outdoor, 7 inch internal
V1405-7S	Camera housing, indoor/outdoor, 7 inch internal, w/ sun shield
V1405-7SH	Camera housing, indoor/outdoor, 7 inch internal, w/ sun shield & heater, 24 VAC
V1405-10	Camera housing, indoor/outdoor, 10 inch internal
V1405-10S	Camera housing, indoor/outdoor, 10 inch internal, w/ sun shield
V1405-10SH	Camera housing, indoor/outdoor, 10 inch internal, w/ sun shield & heater, 24 VAC

Recommended Installation Mounts

Wall mount

V1571-W	Wall Mount, H/V adjustable for housing (V1405), 33.07 lbs. (15 kg) load
V1572-W	Wall Mount, Non-Adjustable for housing (V1405, V1406, V1407), 121.25 lbs. (55 kg) load
V1573	Mount Adapter, Adds H/V adjustability to V1572-W Wall Mount for housing (V1405, V1406, V1407), 44.09 lbs. (20 kg) load
V1574A	Pole Mount adapter for V1571-W
V1574B	Pole Mount adapter for V1572-W

Note: Order V1572-W and V1573 at the same time.

V1406 Series

Indoor/Outdoor Medium Camera Housing

Infinova[®]
The Integrator's Manufacturer



- **Indoor/outdoor installations with fixed mount or pan/tilt**
- **Die-cast aluminum**
- **Front opening top cover with pneumatic strut**
- **Two cable entry ports on the housing bottom**
- **Rear lock-in latch connection**
- **IP66 standard**
- **Easy installation and maintenance**
- **Optional fan, heater, sunshield and rain wiper**

The V1406 series are affordable die-cast aluminum housings for both indoor and outdoor installation. The V1406 series housings accommodate CCD cameras with fixed or vari-focal lens. A rear lock-in latch secures the top cover for added security. When the top cover is completely open, a unique pneumatic strut will support it. There are two adjustable cable clamps on the bottom for easy installation of power supply and video cable. V1406 series have an optional set of accessories which can be installed at the factory, including fan, heater, sunshield and rain wiper. The input voltage is available in 24 VAC. The V1406 series can be installed on either fixed mounts or pan/tilts.

Technical specifications

Electrical

Input Voltage	24 VAC, 50/60 Hz
Power Consumption	Blower: 8 W; Heater: 36 W; Window Wiper: 5 W

Physical

Camera Mounting	Multiple installation holes available on the camera supporting board, which is installed on the two narrow slots in the bottom groove for easy disassembly. It can be conversely installed if elevation of the camera is needed.
Internal Usable Dimensions (L×W×H)	V1406-11: 11.02"×4.92"×4.09" (280 mm×125 mm×104 mm)
Window Thickness	0.16" (4 mm)
Window Dimensions (W×H)	4.02"×3.50" (102 mm×89 mm)
Cable Input	Two compressed cable clamps with a maximum diameter of 0.48" (12 mm) available on the bottom

Lock-in Latch	Stainless steel; padlock (not included) can also be used to secure
Construction	Die-cast aluminum
Box Dimensions (L×W×H)	V1406-11: 25"×8.50"×7.01" (635 mm×216 mm×178 mm)
Unit Weight	V1406-11: 11.02 lbs. (5 kg)
Shipping Weight	V1406-11: 13.45 lbs. (6.1 kg)

Environmental

Auto Controlled Temperature	Heater: Turns on at 46°F ± 9°F (8°C ± 5°C); Turns off at 68°F ± 9°F (20°C ± 5°C) Blower: Turns on at 99°F ± 9°F (37°C ± 5°C); Turns off at 68°F ± 9°F (20°C ± 5°C)
Environment	Indoor/outdoor
Operating Temperature	23°F ~140°F (-5°C ~ 60°C); -13°F ~140°F (-25°C ~ 60°C) (w/ heater)

Certifications and Approval

Product Certifications	CE, ISO 9001: 2008
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Ordering information

V1406-11	Camera housing, indoor/outdoor, 11 inch internal, pneumatic supporting lid
V1406-11S	Camera housing, indoor/outdoor, 11 inch internal, pneumatic supporting lid, w/ sun shield
V1406-11SHB	Camera housing, indoor/outdoor, 11 inch internal, pneumatic supporting lid, w/ sun shield, heater & blower, 24 VAC
V1406W	Wiper for V1406 camera housing, 24 VAC

Recommended Installation Mounts

Wall mount

V1572-W	Wall Mount, Non-Adjustable for housing (V1405, V1406, V1407), 121.25 lbs. (55 kg) load
V1573	Mount Adapter, Adds H/V adjustability to V1572-W Wall Mount for housing (V1405, V1406, V1407), 44.09 lbs. (20 kg) load
V1574B	Pole Mount adapter for V1572-W

Note: Order V1572-W and V1573 at the same time.

V1407 Series

Indoor/Outdoor Large Camera Housing

Infinova[®]
The Integrator's Manufacturer



- **Indoor/outdoor installations with fixed mount or pan/tilt**
- **Die-cast aluminum**
- **Front opening top cover with pneumatic strut**
- **Two ports for cable glands on the housing bottom**
- **Side lock-in latch connection**
- **IP66 standard**
- **Easy installation and maintenance**
- **Optional blower, heater, sunshield and wiper**

V1407 series are large camera housings for both indoor and outdoor applications. The V1407 series are made of die-cast aluminum and meets the requirements of even the most demanding CCTV projects. All V1407 series housings can accommodate cameras with either fixed or vari-focal lenses. The housing cover can be opened through side latches. When the top cover is completely open, a unique pneumatic strut will support the cover, allowing easy access to the interior. There are two adjustable cable glands on the bottom of the housing for easy installation of power supply and video cable. There are one (V1407-16) or two (V1407-22) lock-in latches on both sides of the housing. A padlock (not provided) can be used to secure the latching system to provide enhanced access security. The V1407 series have an optional set of accessories which can be installed at the factory, including sunshield, heater, fan and rain wiper. Input power is available at 24 VAC. The V1407 series can be installed on either fixed mounts or pan/tilts.

Technical specifications

Electrical

Input Voltage	24 VAC, 50/60 Hz
Power Consumption	Blower: 8 W; Heater: 36 W; Window Wiper: 5 W

Physical

Camera Mounting	The camera supporting board is removable and can be installed upside-down.
Internal Usable Dimensions (L×W ×H)	V1407-16: 15.75"×7.87"×5.12" (400mm×200mm×130mm) V1407-22: 21.77"×7.87"×5.12" (553mm×200mm×130mm)
Window Thickness	0.16" (4 mm)
Window Dimensions (W×H)	5.28"×4.25" (134 mm×108 mm)
Cable Input	Two compressed cable clamps with a maximum diameter of 0.48" (12 mm) are located on the bottom of the housing
Lock-in Latch	Stainless steel; padlock (not included) can also be used to secure

Construction	Die-cast aluminum
Unit Weight	V1407-16: 14.33 lbs. (6.5 kg); V1407-22: 15.43 lbs. (7.0 kg)
Shipping Weight	V1407-16: 16.53 lbs. (7.5 kg); V1407-22: 17.64 lbs. (8 kg)

Environmental

Auto Controlled Temperature	Heater: Turns on at 46°F ± 9°F (8°C ± 5°C); Turns off at 68°F ± 9°F (20°C ± 5°C) Blower: Turns on at 99°F ± 9°F (37°C ± 5°C); Turns off at 68°F ± 9°F (20°C ± 5°C)
Environment	Indoor/outdoor
Operating Temperature	23°F ~140°F (-5°C ~ 60°C); -13°F ~140°F (-25°C ~ 60°C) (w/ heater)

Certifications and Approval

Product Certifications	CE, ISO 9001: 2008
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Ordering information

V1407-16	Camera housing, indoor/outdoor, 16 inch internal, pneumatic supporting lid
V1407-16S	Camera housing, indoor/outdoor, 16 inch internal, pneumatic supporting lid, w/ sun shield
V1407-16SHB	Camera housing, indoor/outdoor, 16 inch internal, pneumatic supporting lid, w/ sun shield, heater & blower, 24 VAC
V1407-22	Camera housing, indoor/outdoor, 22 inch internal, pneumatic supporting lid
V1407-22S	Camera housing, indoor/outdoor, 22 inch internal, pneumatic supporting lid, w/ sun shield
V1407-22SHB	Camera housing, indoor/outdoor, 22 inch internal, pneumatic supporting lid, w/ sun shield, heater & blower, 24 VAC
V1407W	Wiper for V1407 camera housing, 24 VAC

Recommended Installation Mounts

Wall mount

V1572-W	Wall Mount, Non-Adjustable for housing (V1405, V1406, V1407), 121.25 lbs. (55 kg) load
V1573	Mount Adapter, Adds H/V adjustability to V1572-W Wall Mount for housing (V1405, V1406, V1407), 44.09 lbs. (20 kg) load
V1574B	Pole Mount adapter for V1572-W

Note: Order V1572-W and V1573 at the same time.

V1570 Series

Housing Mounts

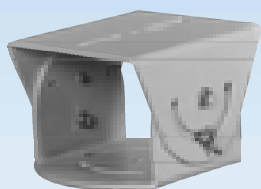
Infinova[®]
The Integrator's Manufacturer



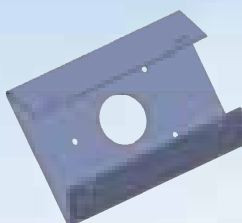
V1571-W



V1572-W



V1573



V1574A



V1574B

- **For indoor/outdoor installations**
- **Die-cast aluminum**
- **Easy installation and maintenance**

V1571-W is specially designed for use with Infinova's V1405 housing.

It features manual adjustments, 360° in horizontal direction and adjustments in vertical direction.

V1572-W is designed for V1405, V1406 and V1407 indoor/outdoor housings.

V1573 is specially designed for use with the V1572-W mounts to provide 360° horizontal adjustment and 180° vertical adjustment.

Technical specifications

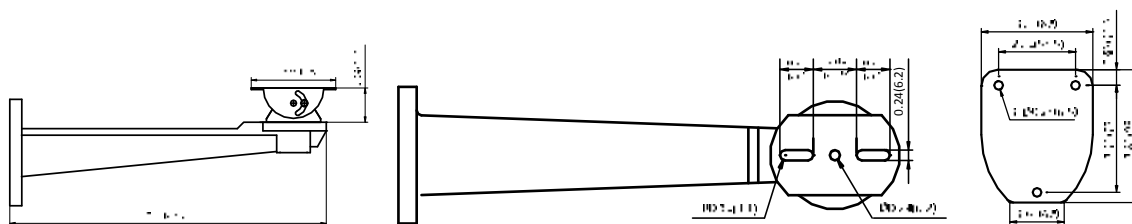
Housing Installation	V1571-W: Mounted with two M6x16 hexagon bolts; V1573: Mounted with two M6x16 hexagon bolts
Pan/Tilt Installation	V1572-W: Mount the pan/tilt with four M6x16 hexagon bolts, washer and spring washer
Weight	V1571-W: 1.43 lbs. (0.65 kg); V1572-W: 5.51 lbs. (2.5 kg); V1573: 2.43 lbs. (1.1 kg) V1574A: 1.21 lbs. (0.55 kg); V1574B: 3.24 lbs. (1.47 kg);
Loading	V1571-W: 33.07 lbs. (15 kg); V1572-W: 121.25 lbs. (55 kg); V1573: 44.09 lbs. (20 kg)
Box Dimensions (L×W×H)	V1571-W: 12.20"×4.33"×3.35" (310mm×110mm×85mm); V1572-W: 21.26"×7.48"×6.70" (540mm×190mm×170mm) V1573: 5.31"×4.72"×3.94" (135mm×120mm×100mm) V1574A/B: 12.60"×9.25"×6.10" (320mm×235mm×155mm)

Ordering information

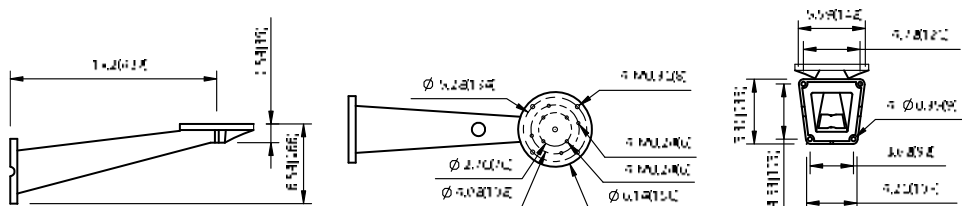
V1571-W	Wall Mount, H/V adjustable for housing (V1405), 33.07 lbs. (15 kg) load
V1572-W	Wall Mount, Non-Adjustable for housing (V1405, V1406, V1407), 121.25 lbs. (55 kg) load
V1573	Mount Adapter, Adds H/V adjustability to V1572-W Wall, Mount for housing (V1405, V1406, V1407), 44.09 lbs (20 kg) load
V1574A	Pole Mount adapter for V1571-W
V1574B	Pole Mount adapter for V1572-W

Dimensions

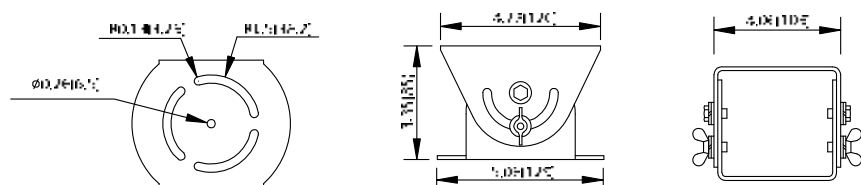
V1571-W



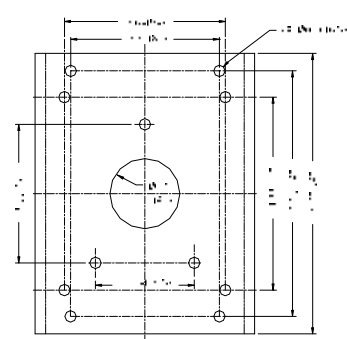
V1572-W



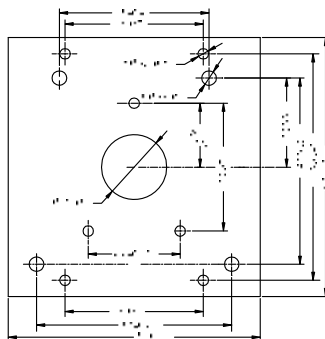
V1573



V1574-A



V1574-B

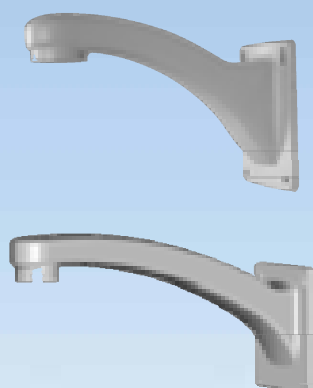


(Unit: inch, in the parentheses is mm)

V1760 Series

Indoor/Outdoor Dome Mounts

Infinova[®]
The Integrator's Manufacturer



- For indoor/outdoor installations
- Die-cast aluminum
- Easy installation and maintenance

Ordering information

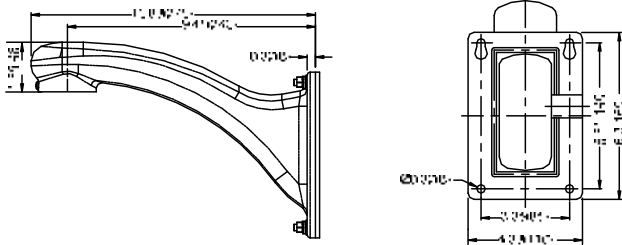
V1761	Wall Mount, 10 inch horizontal, 1.5 inch NPT	V1761S	Wall Mount, 316 Stainless Steel (only for V1750A pressurized domes)
V1761L	Wall Mount, 17 inch horizontal, 1.5 inch NPT	V1762S	Corner Mount, 316 Stainless Steel (only for V1750A pressurized domes)
V1762	Corner Mount, 10 inch horizontal, 1.5 inch NPT	V1763S	Pole Mount, 316 Stainless Steel (only for V1750A pressurized domes)
V1763	Pole Mount, 10 inch horizontal, 1.5 inch NPT	V1761MS	Wall Mount, 6 inch horizontal, 1.5 inch NPT (only for mini domes)
V1764	Pendant Mount, 15 inch long vertical, 1.5 inch NPT	V1762MS	Corner Mount, 6 inch horizontal, 1.5 inch NPT (only for mini domes)
V1764A	Pendant Mount, 15 inch long vertical, 1.5 inch NPT, outdoor, side opening for wiring	V1763MS	Pole Mount, 6 inch horizontal, 1.5 inch NPT (only for mini domes)
V1764B	Pendant Mount, 15 inch long vertical, 1.5 inch NPT, outdoor, top opening for wiring		
V1765	Parapet Mount, 12 inch horizontal, vertical attachment, 1.5 inch NPT		
V1765A	Parapet Mount, V1765 horizontal attachment adapter		
V1766	Indoor Drop Ceiling Panel, 2 feet × 2 feet, pre-cut		
V1760D	Desktop Demo Stand, 1.5 inch NPT		

Dimensions

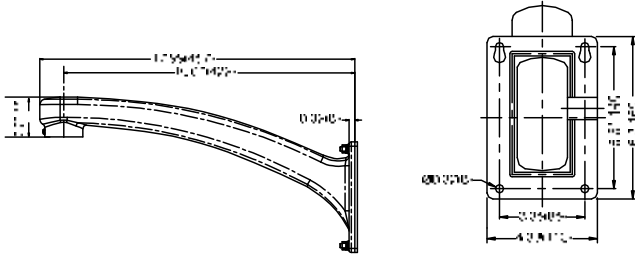
The mounts below are the aluminum brackets used to steadily mount Infinova's analog super domes, and IP domes.

Unit: inch, in the parentheses is mm

- The diagrams below show the V1761 installation dimensions for wall mount domes combined using the arm bracket.

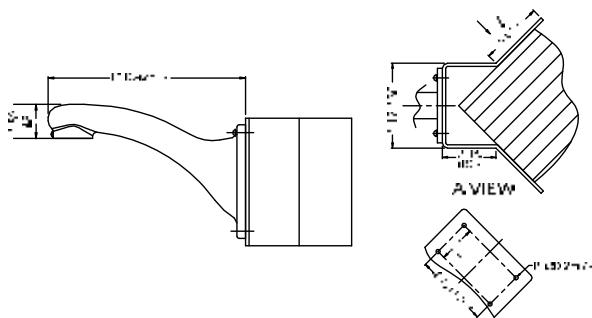


V1761 Short-arm Wall Mount



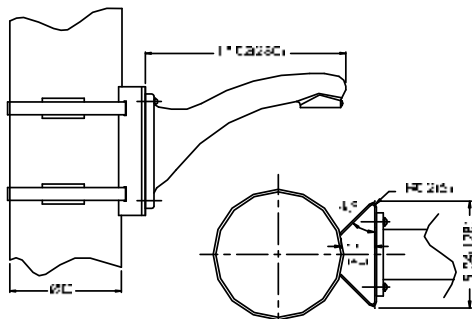
V1761L Long-arm Wall Mount

- The diagrams below show the V1762 installation dimensions for corner mount domes combined using the arm bracket.



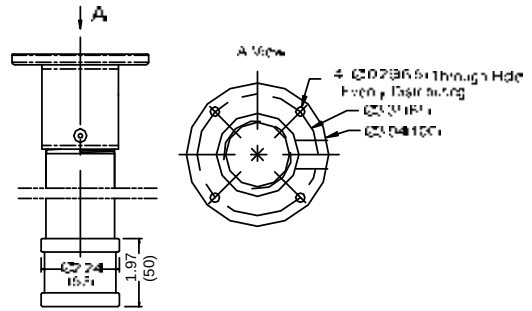
V1762 Corner Mount

- The diagrams below show the V1763 installation dimensions for pole mount domes combined using the arm bracket.

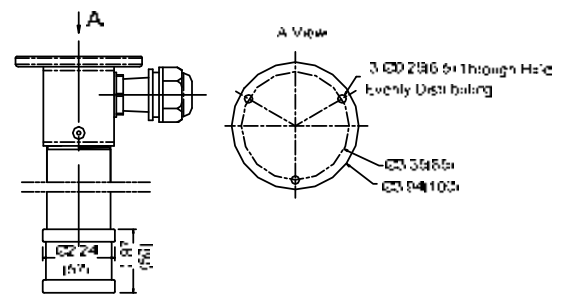


V1763 Pole Mount

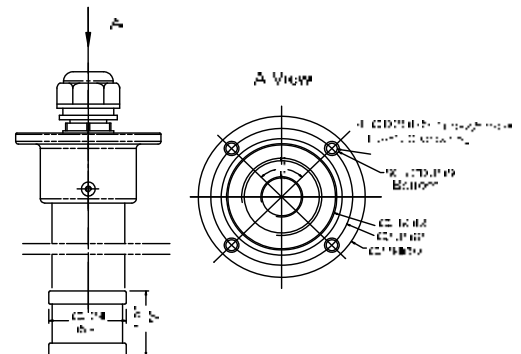
- The diagrams below show the V1764 installation dimensions for pendant mount domes.



V1764 Indoor Pendant Mount

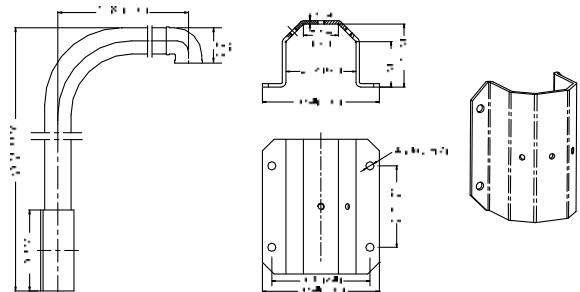


V1764A Outdoor Pendant Mount (side opening)



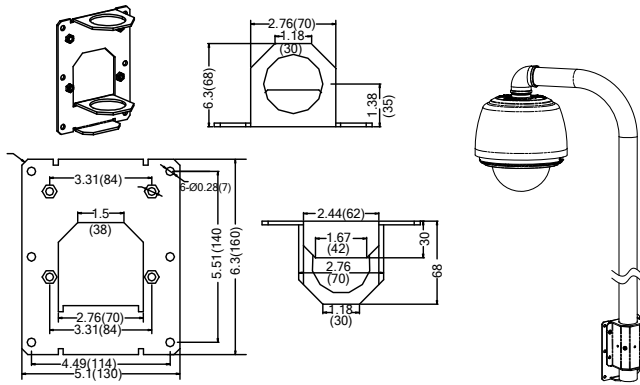
V1764B Outdoor Pendant Mount (top opening)

- The diagrams below show the V1765 installation dimensions for parapet mount domes combined with the arm brackets.



Bracket Dimensions

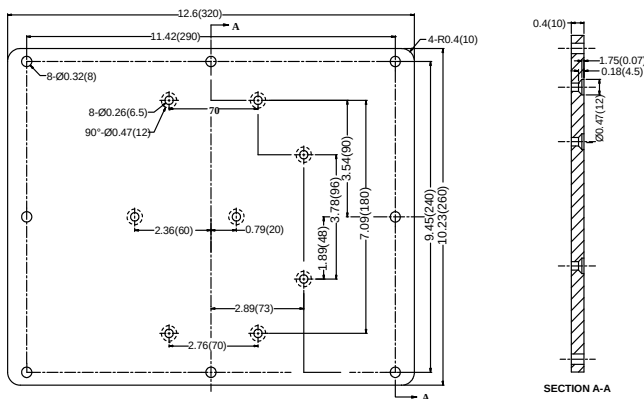
Fastening Bracket dimensions



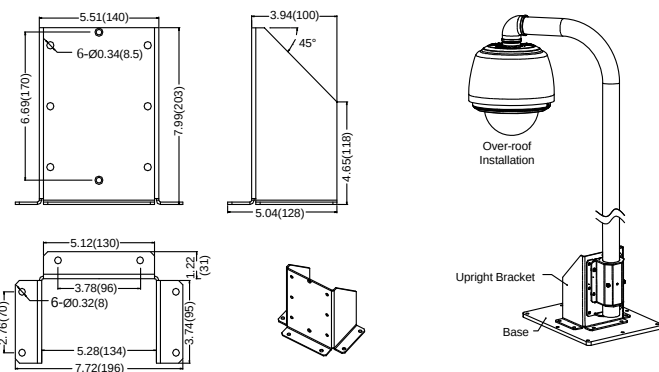
Pedestal Bracket Dimensions

Over-roof sidewall Mounting

The V1765 works with the V1765A parapet horizontal attachment adapter to create over-roof horizontal surface mounting. The accessories include an upright bracket and base.



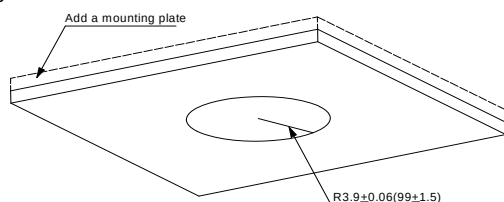
Base Dimension



Upright Dimension

Over-roof horizontal Surface Mounting

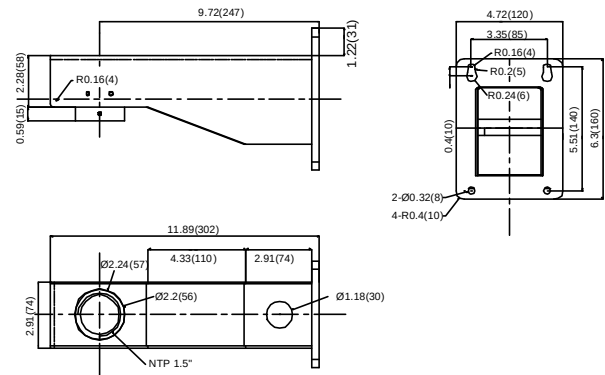
6. The diagrams below show the V1766 installation dimensions for ceiling mount domes.



Indoor Drop Ceiling Panel

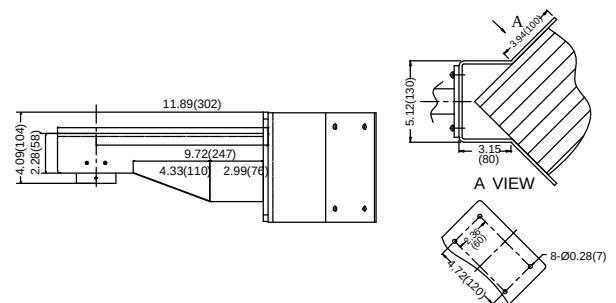
The mounts below are the stainless steel brackets used to steadily mount Infinova's **V1750A** pressurized domes.

1. The diagrams below show the V1761S installation dimension for wall mount domes combined with the arm brackets.

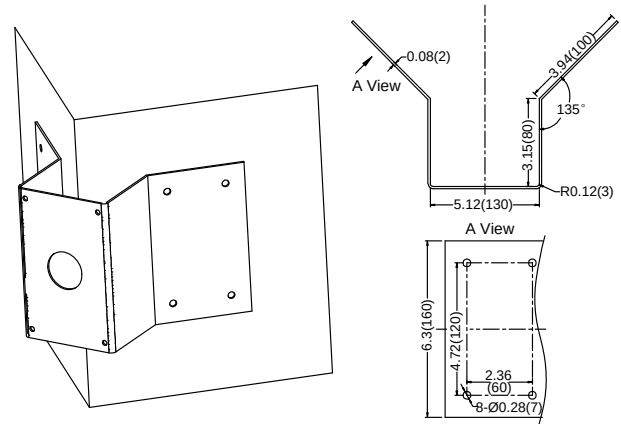


V1761S Wall Mount

2. The diagrams below show the V1762S installation dimensions for corner mounting combined with arm brackets.

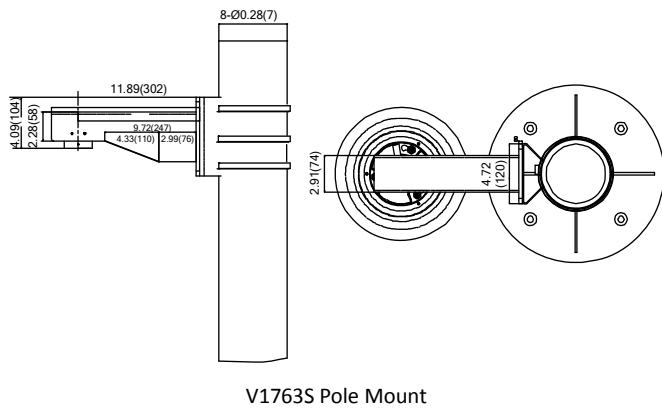


V1762S Corner Mount



Installing Bracket Base

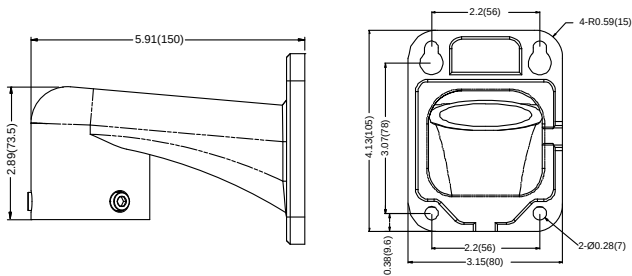
3. The diagrams below show the V1763S installation dimensions for pole mounting combined with arm brackets.



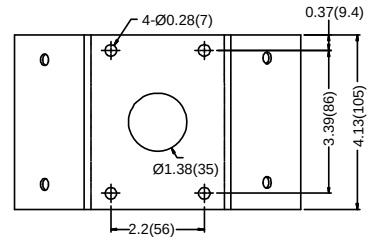
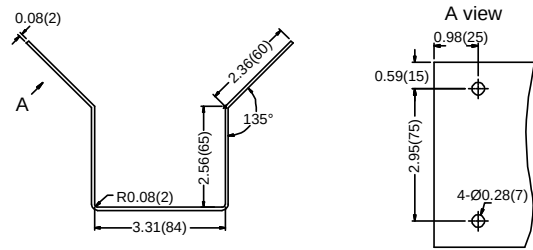
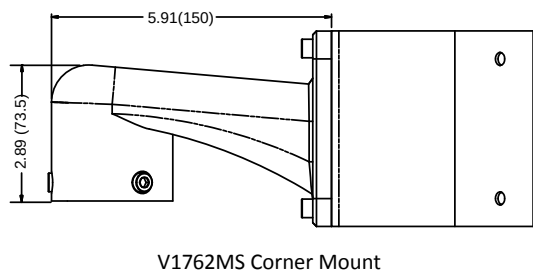
Note: Refer to the corresponding installation manuals for detailed installation dimensions and procedures.

The mounts below are the aluminous brackets used to steadily mount Infinova's V1731A and V1731N-M mini domes.

1. The diagrams below show the V1761MS installation dimension for wall mount domes combined with the arm brackets.

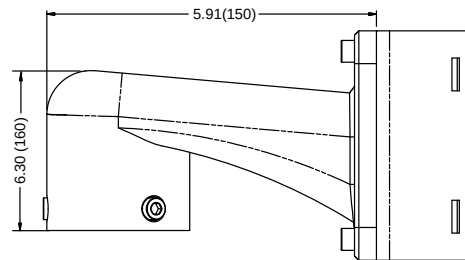


2. The diagrams below show the V1762MS installation dimensions for corner mounting combined with arm brackets.

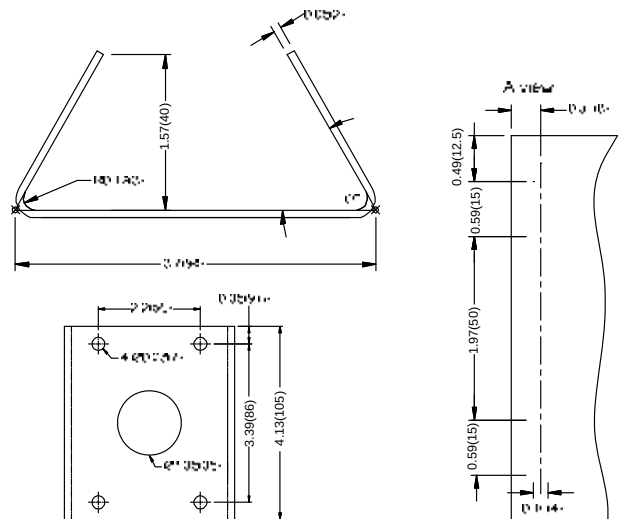


Installing Bracket Base

3. The diagrams below show the V1763MS installation dimensions for pole mounting combined with arm brackets.



V1763MS Pole Mount



Installing Bracket Base

Control Room Product Family

V1362 Series

LCD Monitors

Infinova[®]
The Integrator's Manufacturer



V1362S-17/19

- NTSC/PAL system auto switch
- 500 TVL horizontal video resolution
- High brightness, high contrast
- Wide viewing angle, fast response time
- Adaptive 3D comb filter and 3D de-interlace
- User-friendly front control and OSD multi-language support
- Anti-reflective strengthened glass (optional)
- VESA Wall mount and rack mount bracket (optional)
- Universal power supply (VESA DPMS compatible)
- Slim, lightweight and portable design
- Stylish metal cabinet

V1362S-17/19E-2

- Multiple video interfaces
- VGA, BNC, HDMI
- Alarm trigger for video Pop-up
- 3D Comb filter/ De-interlace for better video quality
- Mask Killer to prevent image sticking
- PIP/ POP multi-display function
- Assembled stand, reduce product packaging
- USB interface for media play and firmware upgrade
- Multi-language support
- Anti-reflective strengthened glass(optional)
- Built-in Media player for multimedia

V1362 series LCD monitors use color active matrix TFT (thin-film transistor) LCD, providing high quality displayed images.

The maximum achievable resolution is 1280×1024 pixels, which enable the display of complex and high quality images. In addition, the monitors also provide OSD (On Screen Display) controls and have built in multi-media speakers.

Technical specifications

For V1362S-17/V1362S-19

Electrical

Power Input	DC 12 V / 4 A
Power Output	DC 12 V / Max 1 A
Power Supply	AC 100V ~ 240V, 50/60Hz
Power Consumption	50 W (Max.)
Power Failure Auto Recovery	Available
Power Management	VESA DPMS Standard
Scan Frequency	Horizontal: 500 TVL / 30 K ~ 91.5 KHz; Vertical: 56 Hz ~ 75 Hz
Audio Speaker	1 W (Max.)

Video

LCD Display	V1362S-17: 17" Active Matrix TFT LCD V1362S-19: 19" Active Matrix TFT LCD
Viewable Size (H × V)	V1362S-17: 13.30"×10.64" (337.92 mm×270.34 mm)/ (5:4) V1362S-19: 14.81"×11.85" (376.32 mm×301.06 mm)/ (5:4)
Response Time (Tr+Tf)	5 ms
Display Color	16.7 M
Pixel Pitch (H × V)	V1362S-17: 0.264 mm × 0.264 mm V1362S-19: 0.294 mm × 0.294 mm
Max. Resolution (H × V)	1280 × 1024 (SXGA)

LCD panel characteristics

Viewable Angle	Left/Right: 80° / 80°(CR=10) Up/Down: 80° / 80°(CR=10)
Contrast Ratio (Typ.)	V1362S-17: 1000:1 V1362S-19: 800:1
Brightness (Typ.)	300 cd / m ²
Lamp Life Time	50,000 hrs

Controls

Front Control	Power On/Off, Mode, Up (Contrast Adjust), Down (Brightness Adjust), Menu, Auto, LED Indicator, Increase (Volume Increase), Decrease (Volume Decrease)
Display Mode	Video & S-Video & VGA
De-interlace	Available
3D Comb Filter	NTSC/PAL
OSD Menu	VGA / DVI: Brightness, Contrast, H-Position, V-Position, Clock, Phase, Color Temp, User Color-R, User Color-G, User Color-B, OSD-H-Position, OSD-V-Position, Volume, Language, PIP, PIP Size/Pos., Source SWAP, Recall Video: Color, Tint (NTSC Only), Brightness, Contrast, Sharpness, Volume, OSD-H-Position, OSD-V-Position, Volume, Language, Color Temp, Scan, PIP, PIP Size/Pos., Source SWAP, Recall
Signal Connector	Input: Video BNC In (1.0Vp-p, 75 Ohm) × 2, Audio In × 2, VGA In, DVI In, HDMI In (Ready), PC Audio In, Y/C In, YPbPr In Output: Video BNC Out (1.0Vp-p, 75 Ohm) × 2, Audio Out × 2, Y/C Out

Environmental

Operating Temp.	32°F ~104°F (0°C ~40°C)
Storage Temp.	-4°F ~140°F (-20°C ~60°C)
Relative Humidity	20~85% RH (non-condensing)

Physical

Unit Dimensions (W×H×D)	V1362S-17: 14.76"×13.98"×6.69" (375mm×355mm×170mm) V1362S-19: 16.56"×15.93"×6.69" (420.6mm×404.5mm×170mm)
Box Dimensions (W×H×D)	V1362S-17: 19.41"×18.43"×8.86" (493mm×468mm×225mm) V1362S-19: 20.91"×20.59"×8.86" (531mm×523mm×225mm)
Unit Weight	V1362S-17: 12.28 lbs. (5.57 kg); V1362S-19: 13.89 lbs. (6.13 kg);
Shipping Weight	V1362S-17: 15.88 lbs. (7.2 kg) V1362S-19: 19.84 lbs. (9.0 kg)

Certifications and Approval

Product Certifications	FCC, CE, UL, CUL, CB, BSMI, CCC, ISO 9001: 2008
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For V1362S-17E-2/V1362S-19E-2

Electrical

Power Input	AC 100 ~ 240V, 50/60Hz
Power Supply	DC 12V / 3.5A
Power Consumption	48W
Built in Speakers	1W

Video

Screen Size	V1362S-17E-2: 17" Active Matrix TFT LCD V1362S-19E-2: 19" Active Matrix TFT LCD
Aspect Ratio	5:4
Max. Resolution	1280 x 1024 / 600TVL
Viewable Size (HxV)	V1362S-17E-2: 13.31"×10.64" (337.94mm×270.34mm) V1362S-19E-2: 14.81"×11.85" (376.32mm×301.06mm)
Pixel Pitch (HxV)	V1362S-17E-2: 0.264 x 0.264 mm V1362S-19E-2: 0.294 x 0.294 mm
Display Color	16.7M
Response Time (Tr/Tf)	5 ms
Video Input	VGA (15 Pin D-SUB) x 1, HDMI x1, BNC x 1
Video Output	Composite (BNC Type) x 1(Optional)
Audio Input	Audio (Phone Jack) x 1
Audio Output	Audio (Phone Jack) x 1
USB 2.0	x 1
Sensor-Alarm	in x 1, out x 1

Controls

PIP & POP	Available
3D Comb Filter	Available
3D De-interlace	Available
OSD Languages	English, Traditional Chinese, Simplified Chinese, French, German, Spanish, Italian, Japanese, Russian, Portuguese, Dutch, Czech
Media Player	JPG, MP3, Files

Technical specifications (continued)

For V1362S-17E-2/V1362S-19E-2

LCD panel characteristics

Brightness	250 cd/m ²
Contrast Ratio	1000 : 1
Viewing Angle (H/V)	V1362S-17E-2: 170° / 160° V1362S-19E-2: 160° / 170°
Panel Life Time	50,000 hrs
Glass	Anti-reflection strengthened glass

Environmental

Operating Condition	32°F ~104°F (0°C ~ 40°C), 20% ~ 80% RH
Storage Condition	-4°F ~140°F (-20°C ~60°C), 15% ~ 85% RH

Mechanical

Dimension (WxHxD)	V1362S-17E-2: 15.19" × 16.01" × 9.45" (385.89 mm×406.75mm×240mm) V1362S-19E-2: 16.70" × 17.22" × 9.45" (424.19mm×437.35mm×240mm)
Net Weight	V1362S-17E-2: 9.72 lbs. (4.41 kg) V1362S-19E-2: 10.83lbs. (4.91 kg)
Mount Weight (Max.)	26.46lbs. (12 kg) (for V1392TW)

Certifications and Approval

Product Certifications	CE, FCC, CB, BSMI
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Ordering information

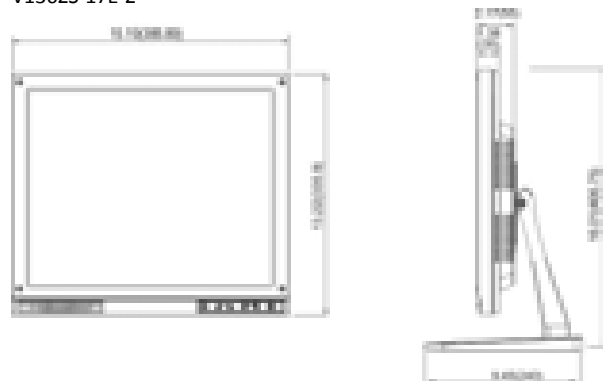
V1362S-17E-2	LCD Monitor, 17 inch, 600TVL, VGA/HDMI/BNC input, BNC output
V1362S-19E-2	LCD Monitor, 19 inch, 600TVL, VGA/HDMI/BNC input, BNC output
V1362S-17	LCD Monitor, 17 inch, 1280×1024, NTSC/PAL/SXGA
V1362S-19	LCD Monitor, 19 inch, 1280×1024, NTSC/PAL/SXGA

Recommended Installation Mounts

V1392TW	Wall mount for LCD monitor, VESA
V1392TR-17E	Rack mount for V1362S-17E-2, VESA
V1392TR-19E	Rack mount for V1362S-19E-2, VESA
V1392TR-17	Rack mount for V1362S-17, VESA
V1392TR-19	Rack mount for V1362S-19, VESA

Dimensions

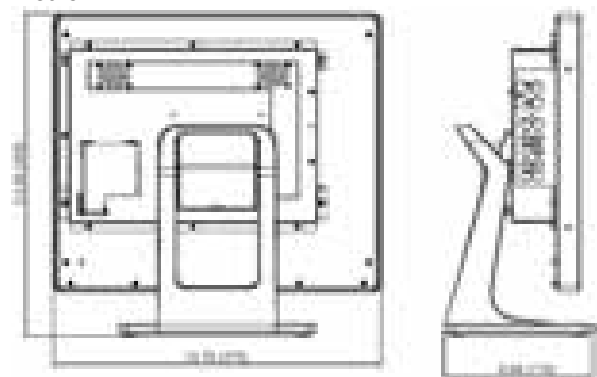
V1362S-17E-2



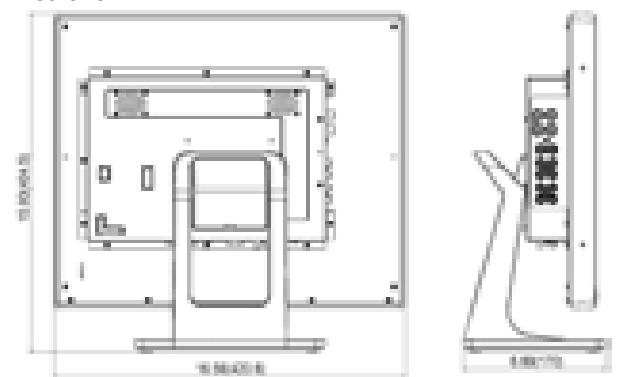
V1362S-19E-2



V1362S-17



V1362S-19

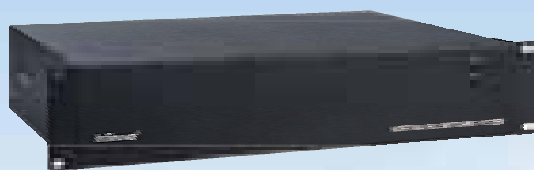


(Unit: inch, in the parentheses is mm)

V2011A Series

Small Matrix Switching/Control System

Infinova[®]
The Integrator's Manufacturer



- **Utilizing ARM9 microprocessor technology and LINUX operation system core**
- **Up to 32 video inputs by 8 video outputs**
- **Ethernet multilevel networking**
- **Free move of camera title and time information on screen**
- **Self-calling and mutual calling of tour and salvo, as well as other Ethernet matrix's video calling are provided**
- **Alarm response can call video input of other networked matrices**
- **Alarm transferred via Ethernet to remote Ethernet Matrix or PC**
- **Keyboard Grouping and Camera Grouping, providing precise management of keyboard to monitor/camera control**
- **User priority and password management**
- **Windows-based multimedia management software**

V2011A features comprehensive functions and pre-configuration.

Utilizing ARM9 microprocessor technology and based on LINUX operation system, the V2011A can provide automated electronic surveillance or it can allow a single user to control an entire CCTV system of up to 32 video inputs by 8 video outputs. In an automated environment the user can pre-define up to 64 system tours, 64 salvos, 35 event timers, 5 alarm display modes and 3 alarm clearance modes to be performed separately on individual monitors.

V2011A has powerful Ethernet multi-level networking function. Available GUI software further simplifies system operation through an on-screen system keyboard. Users can be defined at different levels of administration to further enhance the security of the system.

Technical specifications

Video Input	75 Ohm BNC, 1.0 Vp-p composite
Maximum Inputs	32
Video Output	75 Ohm BNC, 1.0 Vp-p composite
Maximum Video Outputs	8
Amplitude Frequency	±1.0 dB (5.8 MHz)
Differential Gain	<1.0% (typical)
Differential Phase	<1.5°(typical)
S/N Ratio	≥60 dB (typical)
Adjacent Channel Crosstalk	PAL: 55 dB (4.43 MHz); NTSC: 55 dB (3.58 MHz)
Input to Input Crosstalk	PAL: 70 dB (4.43 MHz); NTSC: 70 dB (3.58 MHz)
Return loss (input/output)	>40 dB
DC level	0V or 400mV
Bandwidth	5 Hz~8 MHz
Switching Speed	20ms (typical)
Non-Volatile Memory	for a minimum of 10 years
Tour	64
Salvo	64
Event Timer	35
Alarm Inputs	Max 128, port or network alarm input
Alarm Response	5 alarm display modes; 3 alarm clearance modes; 5 alarm link tables
OSD	video input number, date/time, video input titles (maximum characters 16) and monitor status
Menu Language	English
Keyboard Control Time	60ms (typical)
Keyboard Control Protocol	RS-232 or Ethernet
RS-232 Ports	3, RJ-45
Ethernet Ports	1, RJ-45
Ethernet Data Rate	10/100 Mbps
Alarm Input Connector	16, 20-pin D type
Input Port Status	NO (Normally Open)/ NC(Normally Close)
Relay Output Port	2, 6-pin D type
Relay Contact Ratings	1A@24VDC, 0.5A@110VAC
Manchester Code Output Port	4,12-pin connector
Input Voltage	100~240VAC self-adaptive
Power	Maximum 11W
Dimensions (H x W x D)	3.5" x 19.0" x 12.8" (89mm x 483mm x 325mm)
Package Size (H x W x D)	6.5" x 21.7" x 19.0" (165mm x 550mm x 483mm)
Unit Weight	7.9lbs. (3.6 kg)
Shipping Weight	11.7lbs. (5.3 kg)
Mounting	19" EIA standard rack mount
Operating Temperature	32°F~122°F (0°C~50°C)
Operating Humidity	0~90%RH (non-condensing)
Certifications and Approval	
Product Certifications	CE/EMC ¹ , FCC ² , ISO 9001:2008

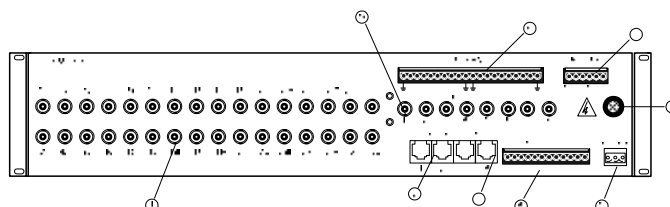
Certificate No.: ¹ RSZ07121702-1&2; ² RSZ07121702.

Ordering information

V2011A-16x5	Small matrix switching/control system, 16 video inputs and 5 video outputs, English menu, 100~240VAC self-adaptive, Ethernet networkable, NTSC
V2011A-16Lx5	Small matrix switching/control system, 16 video inputs and 5 video outputs, video looping output, English menu, 100~240VAC self-adaptive, Ethernet networkable, NTSC
V2011A-32x8	Small matrix switching/control system, 32 video inputs and 8 video outputs, English menu, 100~240VAC self-adaptive, Ethernet networkable, NTSC
V2011A-32Lx8	Small matrix switching/control system, 32 video inputs and 8 video outputs, video looping output, English menu, 100~240VAC self-adaptive, Ethernet networkable, NTSC

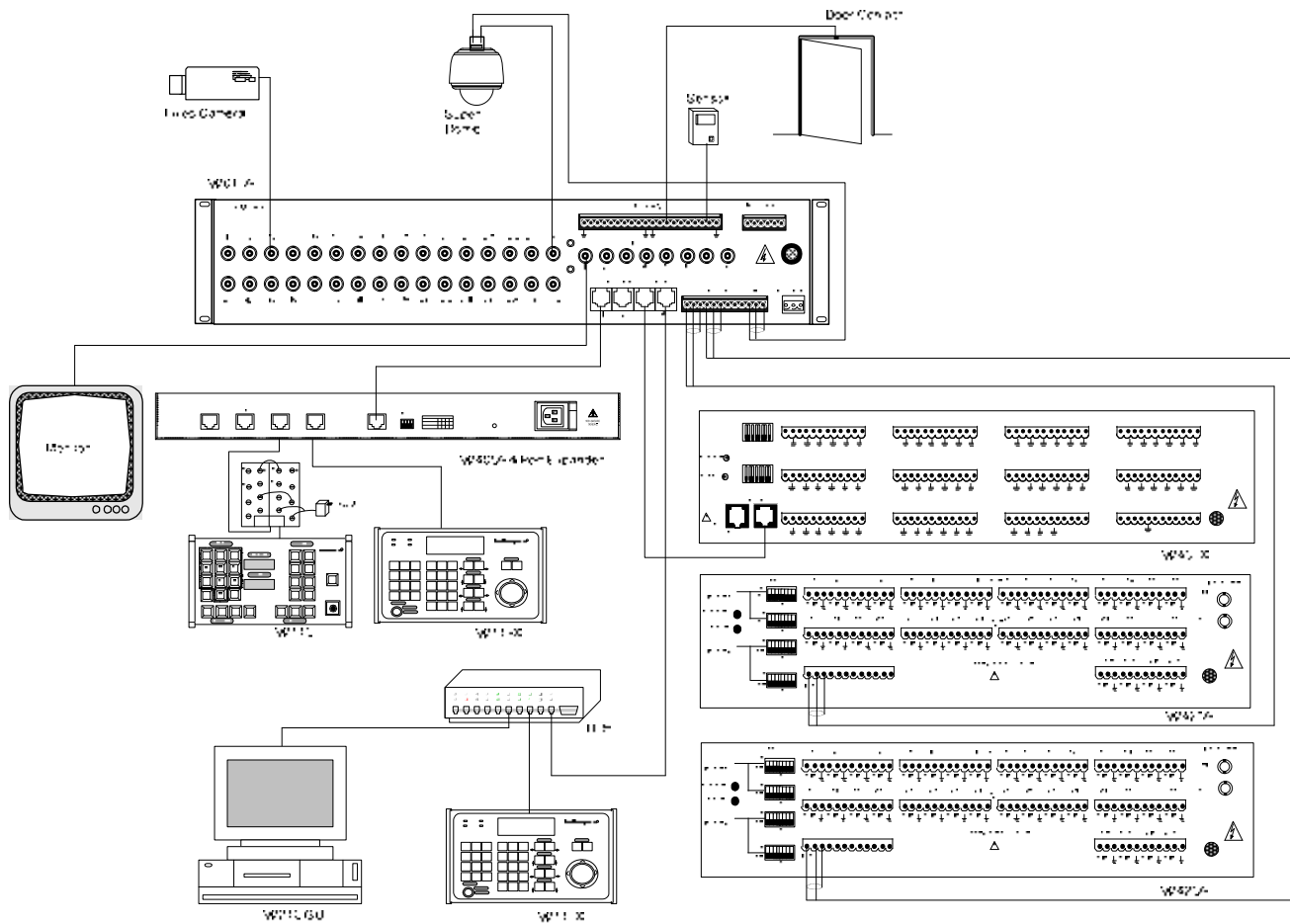
Note: V2011A series matrices are applicable to NTSC system, of which, suffix "X" added behind V2011A means it is applicable to PAL system, such as V2011AX-16x5.

Panel diagram



- (1) 32 Video inputs
- (2) 3 RS-232 ports
- (3) Ethernet output
- (4) 4 Manchester control code connectors
- (5) RS-485 control code connectors
- (6) Power supply cable
- (7) 2 Relays outputs
- (8) 16 Alarm inputs
- (9) 8 Video outputs

Typical application diagram



V2015A Series

Small Matrix Switching/Control System

Infinova[®]
The Integrator's Manufacturer



- Utilizing ARM9 microprocessor technology and LINUX operation system core
- Up to 80 video inputs by 16 video outputs
- Ethernet multilevel networking function
- Free move of camera title and time information on screen
- Self-calling and mutual calling of tour and salvo, as well as other Ethernet matrix's video calling are provided
- Alarm response can call video input of other networked matrices
- Alarm transferred via Ethernet to remote Ethernet Matrix or PC
- Keyboard Grouping and Camera Grouping, providing precise management of keyboard to monitor/camera control
- User priority and password management
- Windows-based multimedia management software

V2015A features comprehensive functions for any security/surveillance system, pre-configuration to assure the highest level of reliability, and modular architecture for ease of installation and operation.

Utilizing ARM9 microprocessor technology and based on LINUX operation system, V2015A can provide automated electronic surveillance or it can allow a single user to control an entire CCTV system of up to 80 video inputs by 16 video outputs. Selectable control code module provides direct control over Manchester or RS-485 protocol receivers and super domes, and Ethernet interface module offers a cost-effective solution for system integration with your existing network.

V2015A can be controlled by keyboards via RS-232 ports. Available GUI software further simplifies system operation through an on-screen system keyboard which is a fully functional representation of V2117. Users can be defined at different levels of administration to further enhance the security of the system.

Technical specifications

Video Input	75 Ohm BNC, 1.0 Vp-p composite
Maximum Inputs	80
Video Output	75 Ohm BNC, 1.0 Vp-p composite
Maximum Video Outputs	16
Amplitude Frequency	±1.0 dB (5.8 MHz)
Differential Gain	<1.0% (typical)
Differential Phase	<1.5° (typical)
S/N Ratio	≥60 dB (typical)
Adjacent Channel Crosstalk	PAL: 55 dB (4.43 MHz) NTSC: 55 dB (3.58 MHz)
Input to Input Crosstalk	PAL: 70 dB (4.43 MHz) NTSC: 70 dB (3.58 MHz)
Return loss (input/output)	>40 dB
DC level	0V or 400mV
Bandwidth	5Hz~8MHz
Switching Speed	20ms (typical)
Non-Volatile Memory	for a minimum of 10 years
Tour	64
Salvo	64
Event Timer	35
Alarm Inputs	Max 1024, port or network alarm input
Alarm Response	5 alarm display modes 3 alarm clearance modes 5 alarm link tables
OSD	video input number, date/time, video input titles (maximum characters 16) and monitor status
Menu Language	English

Keyboard Control Time	60ms (typical)
Keyboard Control Protocol	RS-232 or Ethernet
RS-232 Ports	5, RJ-45
Ethernet Ports	1, RJ-45
Ethernet Data Rate	10/100 Mbps
Alarm Input Connector	16, 20-pin D type
Input Port Status	NO (Normally Open)/ NC (Normally Close)
Relay Output Port	2, 6-pin D type
Relay Contact Ratings	1A@24VDC, 0.5A@110VAC
Manchester Code Output Port	4, 12-pin connector
Input Voltage	100~240VAC self-adaptive
Power	Maximum 30W
Dimensions (H x W x D)	5.2" x 19.0" x 13.0" (132mm x 483mm x 329mm)
Package Size (H x W x D)	10.5" x 22.5" x 17.8" (267mm x 571mm x 451mm)
Unit Weight	17.2 lbs. (7.8 kg)
Shipping Weight	19.8 lbs. (8.97 kg, for standard configuration)
Mounting	19" EIA standard rack mount
Operating Temperature	32°F~140°F (0°C~60°C)
Operating Humidity	0~90%RH (non-condensing)
Certifications and Approval	
Product Certifications	CE, FCC, ISO 9001:2008

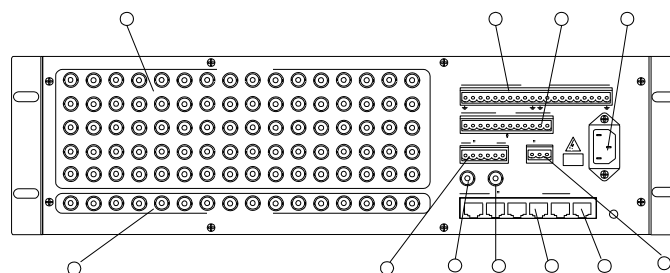
Ordering information

V2015A-YY×ZZ Small matrix switching/control system, English menu, 100~240VAC self-adaptive, Ethernet networkable, NTSC

V2015AX-YY×ZZ Small matrix switching/control system, English menu, 100~240VAC self-adaptive, Ethernet networkable, PAL

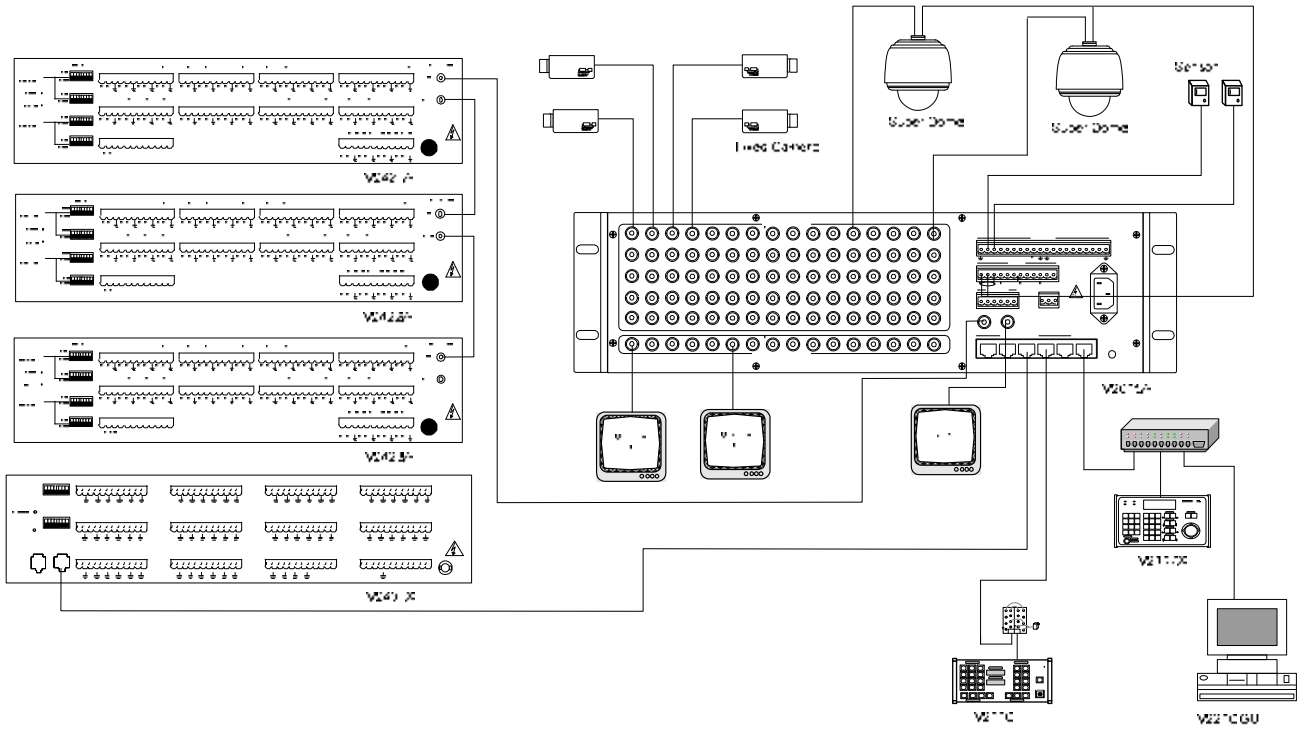
Note: YY×ZZ specifies numbers of video inputs (in submultiples of 16) and video outputs (in sub-multiples of 4). For example, V2015A-80×16 is a pre-configured networkable matrix with 80 video inputs and 16 video outputs.

Panel diagram



- (1) 80 BNC video inputs (75Ω terminated)
- (2) 16 BNC video outputs for 75Ω terminated monitors
- (3) 16 alarm inputs (normally open)
- (4) 4 Manchester control code outputs
- (5) Power socket
- (6) 2 relay outputs
- (7) Programming Monitor (PGM) output
- (8) 5 RS-232 ports
- (9) 1 Ethernet port
- (10) 1 RS-485 control code output
- (11) HSDL output

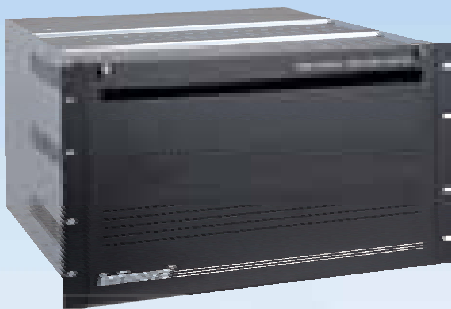
Typical application diagram



V2020A Series

Medium Matrix Switching/Control System

Infinova[®]
The Integrator's Manufacturer



- Utilizing ARM9 microprocessor technology and LINUX operation system core
- Up to 240 video inputs by 32 video outputs
- Scalable high density architecture for easy expansion
- Ethernet multilevel networking function
- Free move of camera title and time information on screen
- Self-calling and mutual calling of tour and salvo, as well as other Ethernet matrix's video calling are provided
- Alarm response can call video input of other networked matrices
- Alarm transferred via Ethernet to remote Ethernet Matrix or PC
- Keyboard Grouping and Camera Grouping, providing precise management of keyboard to monitor/camera control
- User priority and password management
- Windows-based multimedia management software

V2020A features comprehensive functions for any security surveillance system, pre-configuration to assure the highest level of reliability, and open architecture for ease of installation, operation and expansion. Utilizing ARM9 microprocessor technology and based on LINUX operation system, V2020A can provide automated electronic surveillance or it can allow a single user to control an entire CCTV system of up to 240 video inputs by 32 video outputs. In an automated environment the user can pre-define up to 64 system tours, 64 salvos, 35 event timers, 5 alarm display modes and 3 alarm clearance modes to be performed separately on individual monitors.

The V2020A communicates with controllers or PCs via either RS-232 data. Windows-based system setup software greatly simplifies the initial setup procedure as well as ongoing maintenance of system parameters. Available GUI software further simplifies system operation by the utilization of an on-screen system keyboard which is a fully functional representation of V2117. Users could be defined at different levels of administration to further enhance the security of the system.

Technical specifications

Single Standard Bay	240 video inputs by 16 video outputs
Single High-density Bay	112 video inputs by 32 video outputs
Max Capacity	240 video inputs by 32 video outputs
Video Input	75 Ohm BNC, 1.0 Vp-p composite
Video Output	75 Ohm BNC, 1.0 Vp-p composite
Amplitude Frequency	±1.0 dB (5.8 MHz)
Differential Gain	<1.0% (typical)
Differential Phase	<1.5° (typical)
S/N Ratio	≥60 dB (typical)
Adjacent Channel Crosstalk	PAL: 55 dB (4.43 MHz) NTSC: 55 dB (3.58 MHz)
Input to Input Crosstalk	PAL: 70 dB (4.43 MHz) NTSC: 70 dB (3.58 MHz)
Return loss (input/output)	>40 dB
DC level	0V or 400mV
Bandwidth	5Hz~8MHz
Switching Speed	20ms (typical)
Non-Volatile Memory	for a minimum of 10 years
Tour	64
Salvo	64
Event Timer	35
Alarm Inputs	Max 1024, port or network alarm input
Alarm Response	5 alarm display modes 3 alarm clearance modes 5 alarm link tables
OSD	video input number, date/time, video input titles (maximum characters 16) and monitor status
Menu Language	English
Keyboard Control Time	60ms (typical)
Keyboard Control Protocol	RS-232 or Ethernet
RS-232 Ports	8, RJ-45
Ethernet Ports	1, RJ-45
Ethernet Data Rate	10/100 Mbps
HSDL	2 BNC connectors
Ext Sync Input/Output	BNC connector
PGM	BNC connector
Input Voltage	100~240VAC self-adaptive
Power	Maximum 120W
Dimensions (H x W x D)	10.5" x 19.0" x 18.0" (266mm x 483mm x 457mm)
Package Size (H x W x D)	16.5" x 27.0" x 25.0" (419mm x 686mm x 635mm)
Unit Weight	51 lbs. (23.1 kg)
Shipping Weight	82.7 lbs. (37.5 kg, for standard configuration)
Mounting	19" EIA standard rack mount
Operating Temperature	32°F~140°F (0°C~60°C)
Operating Humidity	0~90%RH (non-condensing)
Certifications and Approval	
Product Certifications	CE, FCC, ISO 9001:2008

Ordering information

V2020A-YYY×ZZ	Medium matrix switching/control system, English menu, 100~240VAC self-adaptive, Ethernet networkable, NTSC
V2020AX-YYY×ZZ	Medium matrix switching/control system, English menu, 100~240VAC self-adaptive, Ethernet networkable, PAL

Note: YYY×ZZ specifies numbers of video inputs (in submultiples of 16) and video outputs (in submultiples of 4). For example, V2020A-128×16 is a matrix with 128 video inputs and 16 video outputs, Ethernet networkable.

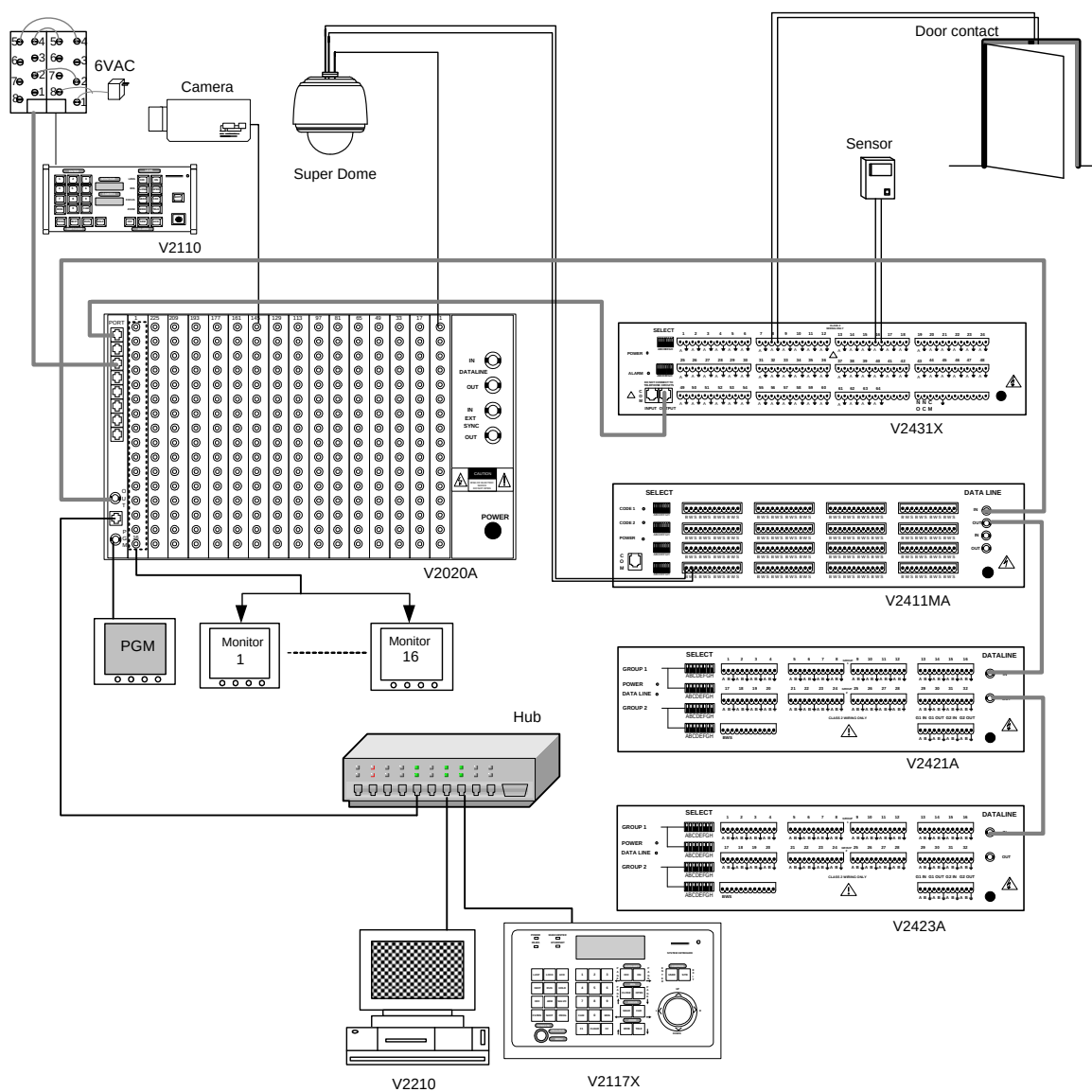
Optional products

V2913ACN	CPU module with networkable function
V2903DBVL	Data buffer module with video loss detection (each for 256 video inputs)

Accessories

V2901	High density bay, including power supply module
V2902	High density bay, bi-level, including power supply module
V2903SPS-1	Power supply module, 100~240VAC self-adaptive
V2903DB	Matrix data buffer module inter-bay connection
V2903DBVL	Data buffer module with video loss detection (each for 256 video inputs)
V2903VI-1	Video input module (back card included), single bay
V2903VI-2	Video input module (back card included), for the first level of multi-bays
V2903VI-3	Video input module (back card included), for the second level of multi-bays
V2913VO	Video output module (back card included)
V2903VIC	Video input card (without back card)
V2903VIB-1	Back card for video input module, single bay
V2903VIB-2	Back card for video input module, for the first level of multi-bays
V2903VIB-3	Back card for video input module, for the second level of multi-bays
V2913VOC	Video output card (without back card)
V2913VOB	Back card for video output module

Typical application diagram



V2040A Series

Large Matrix Switching/Control System

Infinova[®]
The Integrator's Manufacturer



- **Up to 1024 video inputs by 128 video outputs**
- **Utilizing ARM9 microprocessor technology and LINUX operation system core**
- **External CPU with optional “Hot Switch”**
- **Scalable high density architecture for easy expansion**
- **Optional Windows-based multimedia management software**
- **Alarm transferred via Ethernet to remote Ethernet Matrix or PC**
- **Free move of camera title and time information on screen**
- **Self-calling and mutual calling of tour and salvo, as well as other Ethernet matrix's video calling are provided**
- **Alarm response can call video input of other networked matrices**
- **Keyboard Grouping and Camera Grouping, providing precise management of keyboard to monitor/camera control**
- **User priority and password management**

V2040A features comprehensive functions for any security/surveillance system, pre-configuration to assure the highest level of reliability, and open architecture for ease of installation, operation and expansion. V2040A represents the peak of video matrix switching technology while remaining a highly cost effective solution.

Utilizing ARM9 microprocessor technology and based on LINUX operation system, the V2040A can provide automated electronic surveillance or it can allow a single user to control an entire CCTV system of up to 1024 video inputs by 128 video outputs. In an automated environment the user can pre-define up to 64 system tours, 64 salvos, 35 event timers, 5 alarm display modes and 3 alarm clearance modes to be performed separately on individual monitors.

The V2040A communicates with controllers or PCs via either RS-232 data. Windows-based system setup software greatly simplifies the initial setup procedure as well as ongoing maintenance of system parameters. Available GUI software further simplifies system operation by the utilization of an on-screen system keyboard which is a fully functional representation of V2117. Users could be defined at different levels of administration to further enhance the security of the system.

Technical specifications

Video Input	75 Ohm BNC, 1.0 Vp-p composite
Maximum Video Input	1024
Video Output	75 Ohm BNC, 1.0 Vp-p composite
Maximum Video Output	128
Amplitude Frequency	±1.0 dB (5.8 MHz)
Differential Gain	<1.0% (typical)
Differential Phase	<1.5° (typical)
S/N Ratio	≥60 dB (typical)
Adjacent Channel Crosstalk	PAL: 55 dB (4.43 MHz); NTSC: 55 dB (3.58 MHz)
Input to Input Crosstalk	PAL: 70 dB (4.43 MHz); NTSC: 70 dB (3.58 MHz)
Return loss (input/output):	>40 dB
DC level:	0V or 400mV
Bandwidth	5Hz~8MHz
Switching Speed	20ms (typical)
Non-Volatile Memory	for a minimum of 10 years
Tour	64
Salvo	64
Event Timer	35
Alarm Inputs	Max 1024, port or network alarm input
Alarm Response	5 alarm display modes 3 alarm clearance modes 5 alarm link tables
OSD	video input number, date/time, video input titles (maximum characters16) and monitor status
Menu Language	English
Keyboard Control Time	60ms (typical)
Keyboard Control Protocol	RS-232 or Ethernet
RS-232 Ports	10, RJ-45
Ethernet Ports	1, RJ-45
Ethernet Data Rate	10/100 Mbps
HSDL	2 BNC connectors
Ext Sync Input/Output	BNC connector
PGM	BNC connector
Input Voltage	100~240VAC self-adaptive
Power	Maximum 120W
Dimensions (H x W x D)	10.5" x 19.0" x 18.0" (266mm x 483mm x 457mm)
Package Size (H x W x D)	16.5" x 27.0" x 25.0" (635mm x 686mm x 419mm)
Unit Weight	51 lbs. (23.1 kg)
Shipping Weight	94 lbs. (42.7 kg, for standard configuration)
CPU Dimensions (H x W x D)	1.8" x 19.0" x 10.8" (45mm x 483mm x 275mm)
CPU Package Size (H x W x D)	15.5" x 22.0" x 5" (394mm x 559mm x 127mm)
CPU Weight	6.6 lbs. (3 kg)
CPU Shipping Weight	8.5 lbs. (3.85 kg)
Mounting	19" EIA standard rack mount
Operating Temperature	32°F~140°F (0°C~60°C)
Operating Humidity	0~90%RH (non-condensing)
Certifications and Approval	
Product Certifications	CE, FCC, ISO 9001:2008

Ordering information

V2040A-YYYY×ZZZ	Large matrix switching/control system, English menu, 100~240VAC self-adaptive, Ethernet networkable, NTSC
V2040AX-YYYY×ZZZ	Large matrix switching/control system, English menu, 100~240VAC self-adaptive, Ethernet networkable, PAL

Note: YYYY×ZZZ specifies number of video inputs (in submultiples of 16) and video outputs (in submultiples of 4). For example, V2040A-1024×128 is a networkable matrix with 1024 video inputs and 128 video outputs,

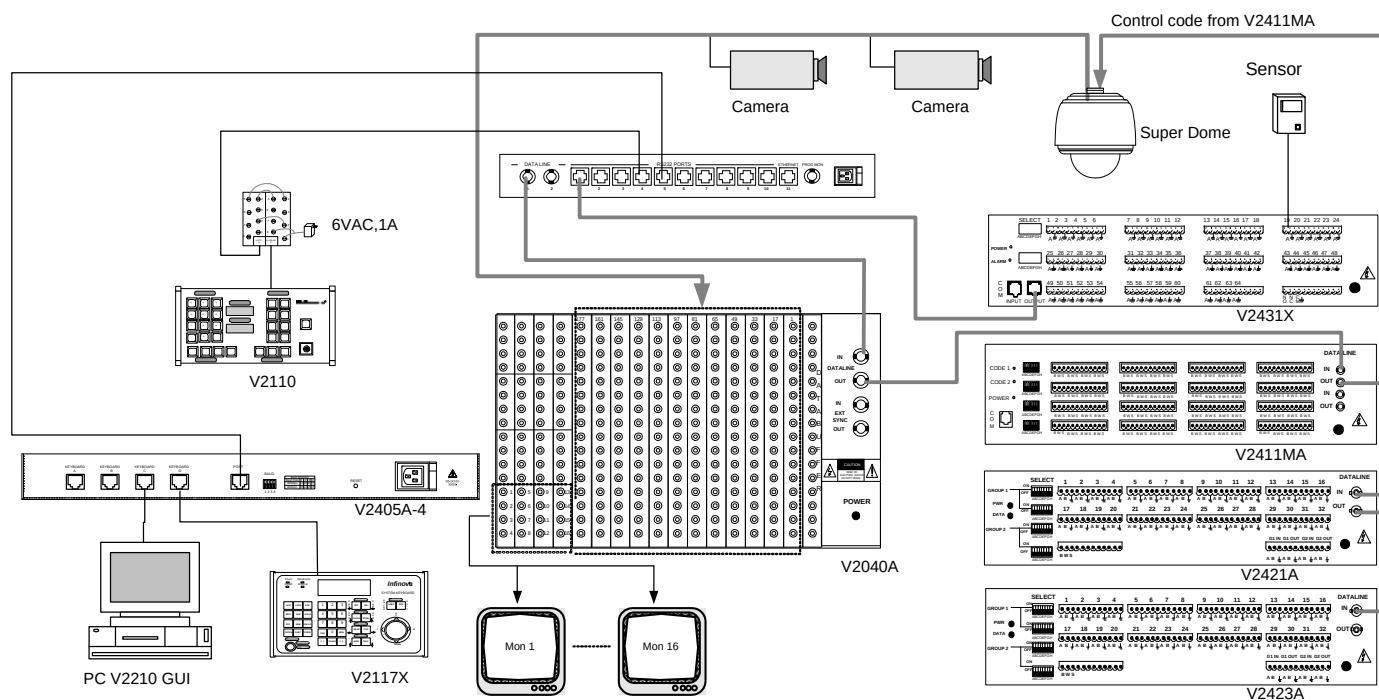
Optional products

V2923ACN	External CPU for backup
V2903DBVL	Data buffer module with video loss detection (each for 256 video inputs)
V2924AHS	Standalone hot switch for dual CPU operation

Accessories

V2901	High density bay, including power supply module
V2902	High density bay, bi-level, including power supply module
V2923ACN	External CPU with network function
V2903SPS-1	Power supply module, 100~240VAC self-adaptive
V2903DB	Matrix data buffer module inter-bay connection
V2903DBVL	Data buffer module with video loss detection (each for 256 video inputs)
V2903VI-1	Video input module (back card included), single bay
V2903VI-2	Video input module (back card included), for the first level of multi-bays
V2903VI-3	Video input module (back card included), for the second level of multi-bays
V2903VI-4	Video input module (back card included), higher level
V2903VO-1	Video output module (back card included), single slot
V2903VO-2	Video output module (back card included), double slots
V2903VIC	Video input card (without back card)
V2903VIB-1	Back card for video input module, single bay
V2903VIB-2	Back card for video input module, for the first level of multi-bays
V2903VIB-3	Back card for video input module, for the second level of multi-bays
V2903VIB-4	Back card for video input module, higher level
V2903VOC	Video output card (without back card)
V2903VOB-1	Back card for video output module, single slot
V2903VOB-2	Back card for video output module, double slots

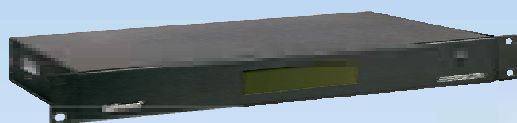
Typical application diagram



V2923ACN Series

External CPU for V2040A Matrix Switcher

Infinova[®]
The Integrator's Manufacturer



- **ARM9 microprocessor technology**
- **Core module of matrix switching/control system**
- **Control matrix switching system and PTZ operation of cameras**
- **Provides system programme menu**
- **Time/Date indicating LED**
- **Power indicator light**

Embedded software CPU is the core of matrix switching/control system, which controls matrix switching actions and PTZ operations of cameras. Meanwhile, it provides system programme menu.

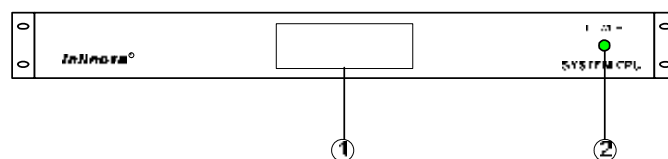
V2923ACN features powerful functions by utilizing ARM9 microprocessor technology and based on LINUX operation system.

Technical specifications

Communication Protocol	RS-232/Ethernet option
Number of RS-232 Ports	10 (expandable to 40)
Connection Type	8-pin RJ-45 connectors
Data Interface	RJ-45
Data Rate	10/100 Mbps
HSDL	2 BNC connectors
Programming Monitor	1 BNC connectors
Input Voltage	100~240VAC, 50/60Hz
Power Requirements	8W
Dimensions (H×W×D)	1.77" × 19.0" × 10.83" (45mm × 483mm × 275mm)
Package Size (L×W×H)	15.5" × 22" × 5" (394mm × 559mm × 127mm)
Unit Weight	6.6lbs. (3 kg)
Shipping Weight:	8.49lbs. (3.85 kg)
Mount	Rack mount
Operating Temperature (indoor)	32°F ~ 140°F (0°C ~ 60°C)
Humidity	0~90%RH (non-condensing)
Certifications and Approval	
Product Certifications	CE, FCC, ISO 9001:2008

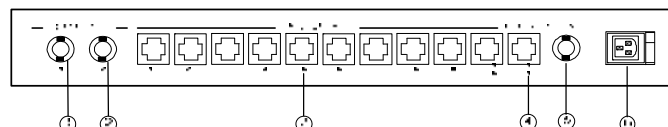
Panel diagram

Front Panel



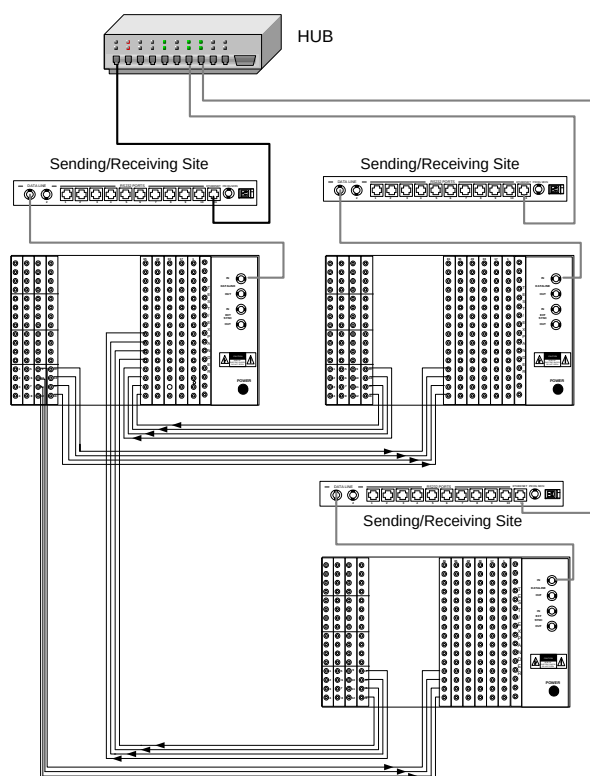
- (1) Date/Time indicating-LED screen, display the current time/date
- (2) Power indicator- indicate system power status

Rear Panel



- (1) HSDL output interface 1
- (2) HSDL output interface 2
- (3) RS-232 port
- (4) Ethernet port
- (5) PGM interface
- (6) Power

Typical application diagram



Ordering information

V2923ACN

External CPU module, ARM9 microprocessor technology, 100~240VAC self- adaptive

V2924AHS Series

Matrix Hot Switch for Dual CPU Operation

Infinova[®]
The Integrator's Manufacturer



- **Automatic or manual selection of active or standby CPU**
- **Continuous detection of dual CPU status**
- **Automatic switchover to standby CPU in the event of active CPU failure**
- **Audible alarm to indicate malfunction in either CPU**
- **Front-panel switch to enable/disable audible alarm function**
- **26 Diagnostic LEDs to indicate each operating status**
- **3 Form-C relay outputs to control auxiliary alarm devices**

The V2924AHS is an external hot-switch that monitors dual V2923ACN CPU operation of V2040A large-scale networking matrix switchers.

The V2923ACN controls all functions of the switcher, including video routing, PTZ operation, programming, and storage. While independent switchers generally use the V2040A matrix switcher with a single CPU, a second V2923ACN may be added by using the V2924AHS. In this dual redundant CPU system, the V2923ACN units are constantly operating in tandem with one unit designated as the primary and the second as the backup. In the event of a failure by the primary CPU, the “hot switch” will automatically transfer system operation to the backup.

Audible alarm is realized via front-panel switches. When it is enabled, there will be audible alert if either CPU goes wrong.

Meanwhile, up to 26 diagnostic LEDs are provided to indicate CPU, V2924AHS, and RS-232 port operating status.

To enhance system's alarm disposing capability, 3 relay outputs are provided to connect with auxiliary alarm devices.

Besides, V2924AHS uses automatic anti-malfunction design. Video surveillance system's operation will not be influenced if there is any power problem with V2924AHS.

Technical specifications

Connectors

RS232 ports	27, 8-pin RJ-45 connectors
CPU communication ports	2, 8-pin RJ-45 connectors
Ethernet connectors	3, 8-pin RJ-45 connectors, 10/100Mbps
High Speed Data Line: programmable monitor outputs	6, BNC interface
Alarm outputs	3, 3-pin "D" type sockets

Electrical

Input voltage	100~240VAC, 60/50Hz
Power consumption	5W
Power cord	3-wire, # 18 AWG

Mechanical

Dimensions

Base only	3.46" (H) × 16.77" (W) × 12.44" (D) 88mm (H) × 426mm (W) × 316mm (D)
With rack ears	3.46" (H) × 19.0" (W) × 12.44" (D) 88mm (H) × 483mm (W) × 316mm (D)
Weight	7lbs. (3.2 kg)
Package Size (L×W×H)	6.5" × 21.7" × 19.0" (165mm × 550mm × 483mm)
Shipping Weight:	11.7lbs. (5.3 kg)
Mounting	Rack mount

Operational

Control switches

CPU selection switch	One 3-position switch
Alter on/off Switch	One 2-position switch

Diagnostic LEDs

CPU status	8 LEDs indicating the status of the two CPUs and the hot switch
Port status	18 LEDs indicating the status of the hot switch's 9 RS232 ports

Environmental

Temperature	32°F ~104°F (0°C~40°C)
Humidity	0~90% RH (non- condensing)

Certifications and Approval

Product Certifications	CE, FCC, ISO 9001:2008
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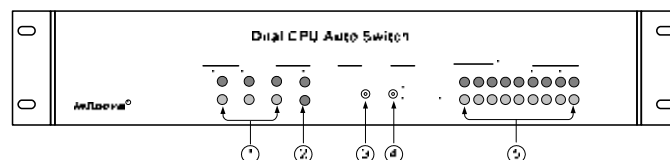
Ordering information

V2924AHS

Standalone hot switch for dual CPU operation,
100~240VAC self-adaptive (The CPUs should be
purchased otherwise)

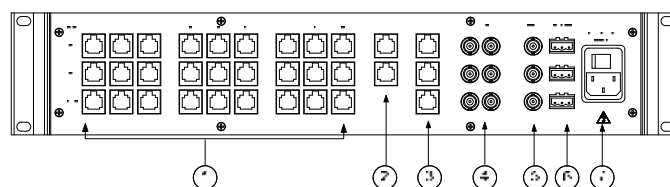
Panel diagrams

Front Panel



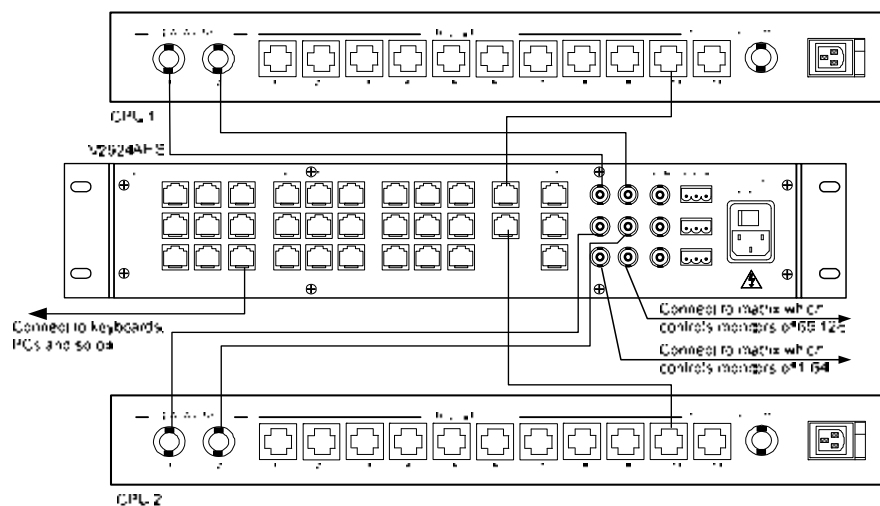
- (1) 6 LEDs indicating the status of the two CPUs
- (2) LED indicating the status of the hot switch
- (3) Switch to select the Active CPU
- (4) Switch to enable/disable audible alert
- (5) 18 LEDs indicating the status of the hot switch's RS-232 ports

Rear Panel



- (1) 3 sets of 9 RS-232 ports (27)
- (2) 2 communication ports for CPU
- (3) 3 Ethernet ports
- (4) 3 sets of 2 High-Speed Data Line ports
- (5) 3 programming monitor outputs
- (6) 3 Form-C relay connectors (alarm outputs)
- (7) Power socket

Typical application diagram



V2125 Series

Multi-purpose, Programmable System Keyboard with Touchable LCD

Infinova[®]
The Integrator's Manufacturer



- **Completely new appearance, streamline structure, handsome and decent**
- **LCD touch-screen supports display of various live information and touch operations**
- **DVR Control with the latest shuttle technique for rapid and exact orientation**
- **Particular macroinstruction setup makes the complicated operations easy**
- **Supports analog video display by LCD directly**
- **Built-in USB interface, and support LCD operations by USB mouse**
- **Splitting screen and calling sub-screen can be realized when used with V2600 NSP and V2216 management platforms**

V2125 series LCD system keyboards are launched with completely new appearance and streamline structure, which makes it handsome and decent. Different operation areas are divided according to functions. The new system keyboard can control Infinova series matrixes, as well as USP, DVR, V2216 digital video management platform. It can control dome cameras and decoders of multiple protocols directly. A RS-232 port and a RS-422/485 port are provided and both the purpose and baudrate are programmable.

V2125 series LCD system keyboards are equipped with 7.0" LCD screen, which can not only display keyboard menu, matrix menu, dome camera menu, current system and keyboard status information, but also can display videos directly. Various operation methods are supported, including screen-touch and USB mouse. What's more, V2125 series system keyboards integrate the audio intercom function (only –N series SD front-end devices and –N series encoders of Infinova protocol are supported currently) to realize communication from keyboard to keyboard and from keyboard to IP front-end products with no delay, which makes surveillance convenient and efficient.

Particular macroinstruction function makes the complicated operations easy and up to 999 macroinstructions can be set. Operation of different devices can be combined to realize linkage operations which are not available by other keyboards. Macroinstruction can be defined via Web server.

Technical specifications

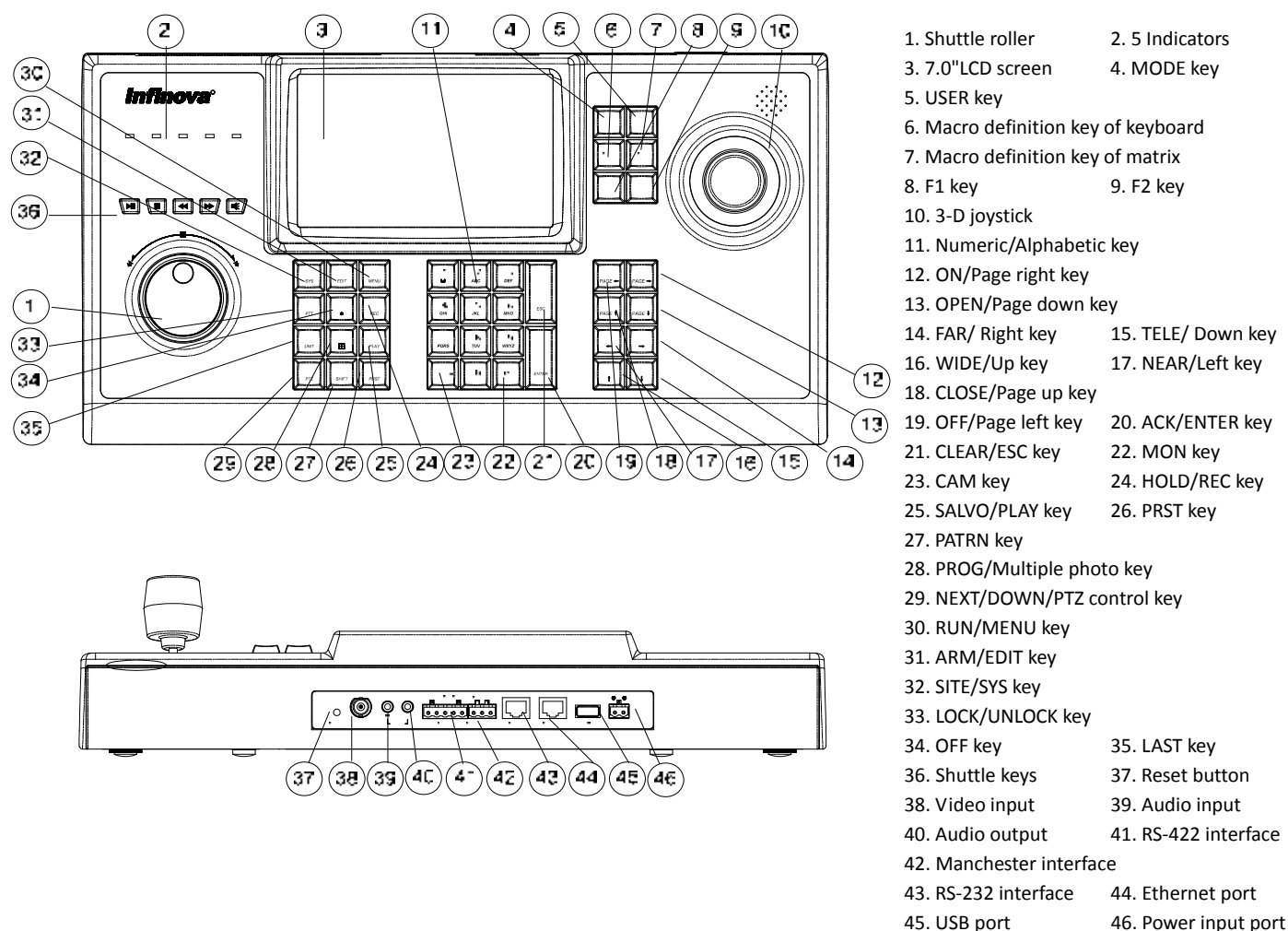
Communication Protocol	RS-232/RS-422/485, Ethernet
RS-232 Baud Rate (bps)	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
Matrix/Dome Output	Manchester/RS-422/485
RS-422/485 Baud Rate (bps)	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
BNC Interface	1 (analog video input)
Audio Input Interface (AV)	1 (audio input)
Audio Output Interface (AV)	1 (audio output)
USB Interface	1 (USB connection)
LCD View Angle	Frontward: 50°/65°; Backward: 60°/65°
LCD Resolution	800×480

Power Supply	12VDC
Power Consumption	≤7.32W
Compatibility	All Infinova matrix switching/control system and DVR
Operation Temperature	14°F~104°F (-10°C ~40°C)
Operation Humidity	0~90% RH (non-condensing)
Product Size	17.6" × 9.2" × 2.8" (447.2mm × 234.2mm × 70.5mm)
Net Weight	5.07lbs. (2.3 kg)
Certifications and Approval	
Product Certifications	CE, FCC, ISO 9001:2008

Ordering information

V2125 System keyboard, 7.0" LCD screen, 3-D joystick, DVR control by shuttle keys, RS-422/485/Manchester code output, Ethernet/RS-232 communication, 12VDC

Panel diagrams



V2117 Series

Multi-purpose, Programmable System Keyboard

Infinova[®]
The Integrator's Manufacturer



- **Built-in RS-485/Manchester control code generators, allowing direct control over site receivers or PTZ Domes**
- **DVR control through RS-485 interface**
- **Communicates with matrix switching system through RS-232 or Ethernet interface**
- **User-friendly design with clearly labeled operation keys**
- **Video input/output switching ability**
- **3-D joystick for controlling motorized pan/tilts and lens with variable speed**
- **Capable of programming, starting and controlling System/Monitor Tours and System Salvos**
- **Convenient monitor arming/disarming and alarm acknowledgement**
- **Easy preset defining and camera call-up**
- **Camera lockout capability**

V2117 series system keyboards are compatible with Infinova series matrix switchers/controllers, PTZ cameras, and digital video recorders, with desktop or rack mounting ways for option.

The V2117 series system keyboards are capable of handling video switching, system setup, menu programming, PTZ control, alarm acknowledgement, salvo switching, DVR control, etc. There is a user login feature for added system security. RS-485 and Manchester code outputs allow for direct control over Infinova series receiver/drivers or dome cameras. DVRs can be controlled through the RS-485 interface. The 3-D joystick can control either fixed or variable-speed pan/tilts. The lens key allows for control of motorized lenses, including: iris (OPEN/CLOSE), focus (FAR/NEAR), and zoom (WIDE/TELE). The LCD display window indicates site number, camera number and monitor number, as well as any digital inputs from the keyboard. A built-in beeper will alert operators of system errors.

V2117 series system keyboards can establish Ethernet or bi-directional RS-232 communications with Infinova series matrix switching systems. Six different baud rates are provided to work with different major matrix switcher/controllers. The keyboard also provides four system status LED indicators.

Technical specifications

General

Communication Protocol	RS-232, Ethernet
RS-232 Baud Rate (bps)	1200, 2400, 4800, 9600, 19200, 38400
RS-485 Baud Rate (bps)	1200, 2400, 4800, 9600, 19200
Matrix/ Dome outputs	Manchester, RS-485

Electrical

Input Voltage	120 VAC/60 Hz, 230 VAC/50Hz
Power Consumption	4.5 W

Mechanical

Dimension (H×W×D)	2.7" × 13.0" × 7.9" (68mm × 330mm × 200mm)
Package Size (H×W×D)	6.5" × 15.0" × 11.0" (165mm × 381mm × 279mm)
Unit Weight	6.17lbs. (2.8 kg)
Shipping Weight	8.4lbs. (3.83 kg)

Environmental

Operating Temperature	32°F~140°F (0°C~60°C)
Operating Humidity	0~90%RH (non-condensing)

Certifications and Approval

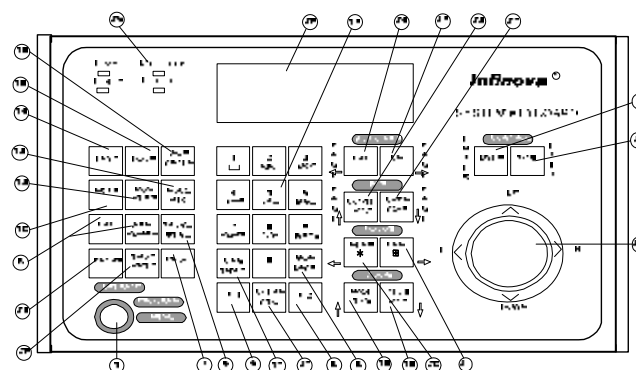
Product Certifications	CE/LVD ¹ : EN60950-1:2006; CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN: 61000-3-3; FCC ³ : Part 15 Subpart B; UL, cUL, ISO 9001:2008
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Certificate No.: ¹ CTS09030005; ² BCT08LC-994E& CTE09030003; ³ BCT08LC-995E.

Ordering information

V2117	Keyboard, Matrix/Dome/DVR control, LCD display, 3-D Joystick, RS-485/Manchester/Ethernet/RS-232 ports, 120 VAC/60 Hz
V2117X	Keyboard, Matrix/Dome/DVR control, LCD display, 3-D Joystick, RS-485/Manchester/Ethernet/RS-232 ports, 230 VAC/50 Hz

Panel diagram

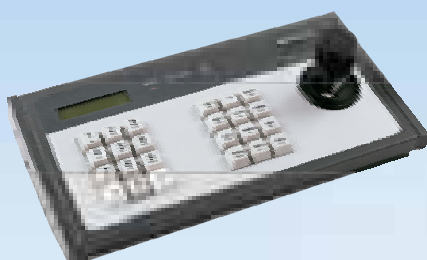


- | | |
|-----------------------------|------------------------------|
| 1. Key switch | 2. USER key |
| 3. Site control | 4. F1 key |
| 5. F2 key | 6. Monitor/UNIT key |
| 7. PROG key | 8. ARM/POWER & OFF key |
| 9. SALVO/MENU key | 10. NEXT key |
| 11. Camera/SHIFT key | 12. RUN/PLAY key |
| 13. HOLD/REC key | 14. LAST key |
| 15. LOCK key | 16. ACK/ENTER key |
| 17. Numeric key | 18. WIDE/SYSTEM/Up arrow key |
| 19. TELE/PTT/Down arrow key | 20. NEAR/Left arrow key |
| 21. FAR/Right arrow key | 22. CLOSE/PTZ/Page up key |
| 23. OPEN/EDIT/Page down key | 24. OFF/Page left key |
| 25. ON/Page right key | 26. SHOT/PRST key |
| 27. PATRN/Exit key | 28. LCD display panel |
| 29. Four LED indicators | 30. Joystick |
| 31. CLEAR/ESC key | |

V2111 Series

PTZ Dome/DVR Controller Keyboard

Infinova[®]
The Integrator's Manufacturer



- **Direct control over PTZ domes/DVRs and Pan/Tilt receivers via RS-485/Manchester code**
- **Built-in RS-485 generator provides multiple baud rates and protocols for selection**
- **LCD display indicating camera number, controller status and any digital inputs**
- **3-D joystick with variable speed**
- **Control of motorized lens**
- **Built-in beeper, which will alarm once operation mistake happened or alarm received**
- **Control of presets, patterns and autopan**
- **Three status indicators**

The V2111 PTZ dome/DVR controller keyboard is compatible with the high-speed dome cameras/receivers under multiple protocols such as MANCHESTER, PELCO-D/P, SAMSUNG, VICON and INFINOVA. It is capable of handling camera switching, menu programming, PTZ and LENS control, PRESET/PATTERN/AUTOPAN control, dome menu programming, etc. And the Controller is capable of controlling DVR via RS-485 port directly.

The V2111 PTZ dome/DVR controller keyboard can directly communicate with high-speed dome cameras/receivers via RS-485 or Manchester code. The 3-D joystick on the CONTROLLER can control fixed or variable-speed pan/tilt or high-speed dome cameras. The lens key allows for control of motorized lenses, including: IRIS (OPEN/CLOSE), FOCUS (FAR/NEAR), and ZOOM (WIDE/TELE). The LCD indicates the spot camera number, as well as any digital inputs from the keyboard.

Technical specifications

General

Communication Protocol	RS-485 and Manchester
Selectable Baud Rate (bps)	1200, 2400, 4800, 9600, 19200

Electrical

Input Voltage	120 VAC/60 Hz, 230 VAC/50Hz
Power Consumption	3 W

Mechanical

Dimension (H×W×D)	2.2" × 12.44" × 6.5" (55mm × 316mm × 165mm)
Package Size (H×W×D)	7.0" × 14.0" × 9.3" (178mm × 356mm × 235mm)
Unit Weight	6.0 lbs. (2.7 kg)
Shipping Weight	7.3 lbs. (3.3 kg)

Environmental

Operating Temperature	32°F~104°F (0°C~40°C)
Operating Humidity	0~90%RH (non-condensing)

Certifications and Approval

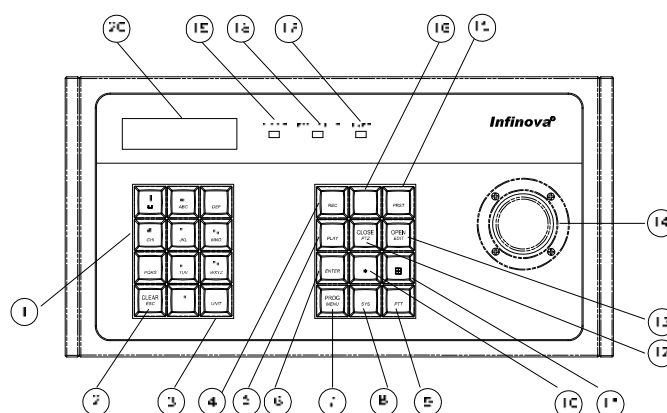
Product Certifications	CE/LVD ¹ : EN60950-1:2006; CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN: 61000-3-3; FCC ³ Class A; UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09FC-497S; ² RSZ07121702-1&2; ³ RSZ07121703.

Ordering information

V2111	Keyboard, Dome/DVR Controller, LCD display, Joystick, RS-485/Manchester ports, 120 VAC/60 Hz
V2111X	Keyboard, Dome/DVR Controller, LCD display, Joystick, RS-485/Manchester ports, 230 VAC/50 Hz

Panel diagram



1. Numeric/Alphabetic keys
2. CLEAR/ESC key
3. CAM/UNIT key
4. LAST/REC key
5. NEXT/PLAY key
6. ACK/ENTER key
7. PROG/MENU key
8. WIDE/SYS key
9. TELE/PTT key
10. NEAR /Switching (number, letter and symbol) key
11. FAR /Switching (video multiplexing) key
12. CLOSE/PTZ key
13. OPEN/EDIT key
14. JOYSTICK
15. SHOT/PRST key
16. F1 key
17. RS-485 LED
18. MANCHESTER LED
19. POWER LED
20. LCD display

V2110 Series

Operator Control Keyboard

Infinova[®]
The Integrator's Manufacturer



- **Variable speed joystick**
- **LED displays to display monitor and camera IDs**
- **Auto pan/tilt scan**
- **Dome/Zoom/Iris/Focus/Lens Control**
- **DIP switch for monitor ID selection**
- **Preset call & Auto tour**
- **Monitor tour programming**
- **Auxiliary ON/OFF control**
- **Monitor arming and disarming functions**
- **Alarm acknowledgement**

V2110 series operator control keyboard is designed to work with all Infinova series matrix switching systems, and can provide camera call-up, and sequence programming functions when used with suitable accessories.

V2110 series keyboard can control a pre-selected monitor or all monitors by changing the settings of the DIP switches located in the bottom side of the unit. Monitor ID will be displayed on the monitor LED display and the Camera ID will be displayed on the camera LED display of the keyboard. To select a camera, simply enter the camera ID and press the CAM button. To select a monitor, simply enter the monitor ID and press the MON button.

In consideration of security, the V2110 keyboard cannot alter the system settings of date/time, camera title, and camera preset.

Technical specifications

General

Communication Protocol	RS-232
Baud Rate (bps)	1200

Electrical

Input Voltage	120VAC/60Hz; 230VAC/50Hz
Power Consumption	4.5 W

Mechanical

Dimension (H × W × D)	3.15" × 10.94" × 5.91" (80mm × 278mm × 150mm)
Package Size (H × W × D)	7.8" × 12.8" × 9.8" (197mm × 325mm × 248mm)
Unit Weight	3.2lbs. (1.45 kg)
Shipping Weight	5.9lbs. (2.69 kg)

Environmental

Operating Temperature	32°F~104°F (0°C~40°C)
Operating Humidity	0~90%RH (non-condensing)

Certifications and Approval

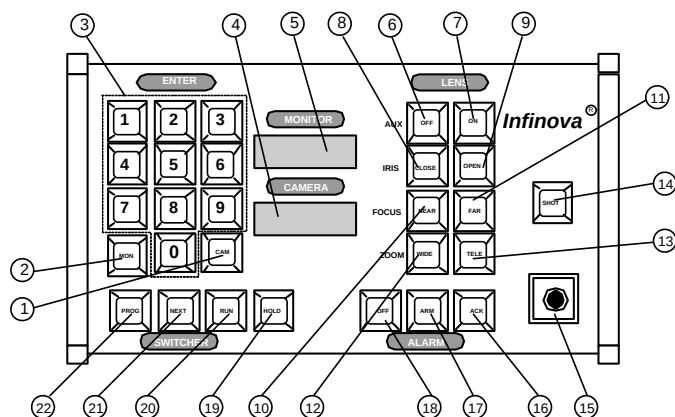
Product Certifications	CE/EMC ¹ : EN 55022, EN 55024; FCC ² : Part 15 Subpart B; UL 60950; cUL; ISO 9001:2008
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Certificate No.: ¹ RSZ07070302; ² BCT09FC-498E.

Ordering information

V2110	Keyboard, Matrix Operator, Joystick, RS-232 port, 120VAC
V2110X	Keyboard, Matrix Operator, Joystick, RS-232 port, 230VAC

Panel diagram

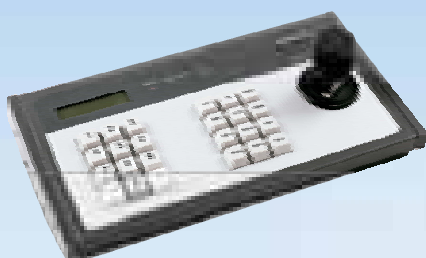


- | | |
|------------------------|-----------------------|
| 1. Camera key | 2. Monitor key |
| 3. Numeric keypad | 4. LED Camera Display |
| 5. LED Monitor Display | 6. Off key |
| 7. On key | 8. Close key |
| 9. Open key | 10. Near key |
| 11. Far key | 12. Wide key |
| 13. Tele key | 14. SHOT key |
| 15. Joystick | 16. ACK key |
| 17. ARM key | 18. OFF key |
| 19. HOLD key | 20. RUN key |
| 21. NEXT key | 22. PROG key |

V2109 Series

Dome Controller Keyboard

Infinova[®]
The Integrator's Manufacturer



- **Provides RS-485 and Manchester codes for direct control over dome cameras and receivers**
- **Built-in RS-485 generator providing multiple baud rates and protocols**
- **LCD display indicating camera number, controller status and digital inputs**
- **3-D variable speed joystick allows for PTZ /lens control, and control over high-speed dome cameras**
- **Control of iris, zoom and focus**
- **Built-in beeper, which will alarm once operation mistake happened or alarm received**
- **Control of presets, patterns and autopan**
- **LED indicating the running status of the system**

The V2109 Dome Controller is compatible with the high-speed dome cameras/receivers under multiple protocols such as MANCHESTER, PELCO-D/P, SAMSUNG, VICON and INFINOVA. It is capable of handling camera switching, menu programming, PTZ and LENS control, PRESET/PATTERN/AUTOPAN control, dome menu programming, etc.

The V2109 dome controller can directly communicate with high-speed dome cameras/receivers via RS-485 or Manchester code. The 3-D joystick on the CONTROLLER can control fixed or variable-speed pan/tilt or high-speed dome cameras. The lens key allows for control of motorized lenses, including: IRIS (OPEN/CLOSE), FOCUS (FAR/NEAR), and ZOOM (WIDE/TELE). The LCD indicates the spot camera number, as well as any digital inputs from the keyboard.

Technical specifications

General

Communication Protocol	RS-485, Manchester
RS-485 Baud Rate (bps)	1200, 2400, 4800, 9600, 19200
RS-485 protocols	INFINOVA, PELCO-D/P, SAMSUNG, VICON

Electrical

Input Voltage	120VAC/60Hz, 230VAC/50Hz
Power Consumption	3 W

Mechanical

Dimension (H×W×D)	2.2" × 12.44" × 6.5" (55mm × 316mm × 165mm)
Package Size (H×W×D)	6.7" × 14.0" × 9.3" (171mm × 355mm × 235mm)
Unit Weight	5.6lbs. (2.55 kg)
Shipping Weight	7.9lbs. (3.58 kg)

Environmental

Operating Temperature	32°F~104°F (0°C~40°C)
Operating Humidity	0~90%RH (non-condensing)

Certifications and Approval

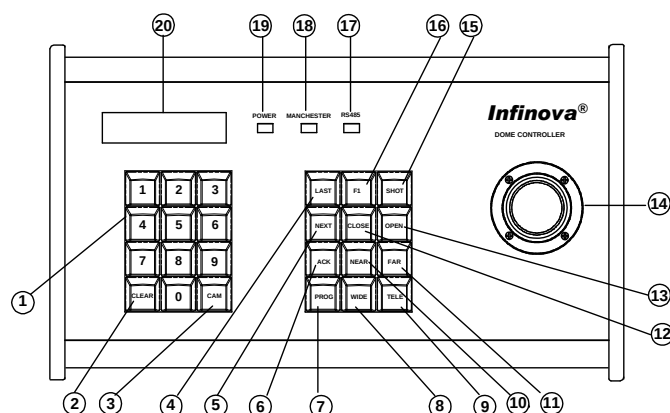
Product Certifications	CE/LVD ¹ : EN60950-1:2006; FCC, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09FC-4975.

Ordering information

V2109	Keyboard, Dome Controller with LCD display, 3-D joystick and RS-485/Manchester code output, 120V/60Hz
V2109X	Keyboard, Dome Controller with LCD display, 3-D joystick and RS-485/Manchester code output, 230V/50Hz

Panel diagram



- | | |
|-----------------|--------------------|
| 1. NUMERIC keys | 2. CLEAR key |
| 3. CAM key | 4. LAST key |
| 5. NEXT key | 6. ACK key |
| 7. PROG key | 8. WIDE key |
| 9. TELE key | 10. NEAR key |
| 11. FAR key | 12. CLOSE key |
| 13. OPEN key | 14. JOYSTICK key |
| 15. SHOT key | 16. F1 key |
| 17. RS485 LED | 18. MANCHESTER LED |
| 19. POWER LED | 20. LCD display |

V2215-J1 Series

USB Desktop Controller

Infinova[®]
The Integrator's Manufacturer



- **3 axes joysticks for P/T/Z control**
- **Programmable pushbutton switches**
- **USB 1.1 HID compliant “game controller”**
- **Easy to use and operate**
- **Optional programming software**

V2215-J1 USB Desktop Controller is a cost-efficient USB device, specifically designed for responsive and accurate control of all Infinova PTZ and IP PTZ dome cameras.

V2215-J1 USB Desktop Controller is equipped with an USB cable and thus very easy to install. Just connect the joystick to the USB port and it is up and running, controlling all the Infinova PTZ and PTZ dome cameras. No proprietary protocols or protocol converters are needed.

It features a three-axis, durable (Hall-effect) joystick with X/Y-axis for positioning and turning knob for zoom. The joystick comes with twelve programmable push-buttons: two on top of the handle and ten on the base.

V2215-J1 integrates seamlessly with any video surveillance software platform that supports Infinova cameras and joystick inputs via Microsoft's DirectX.

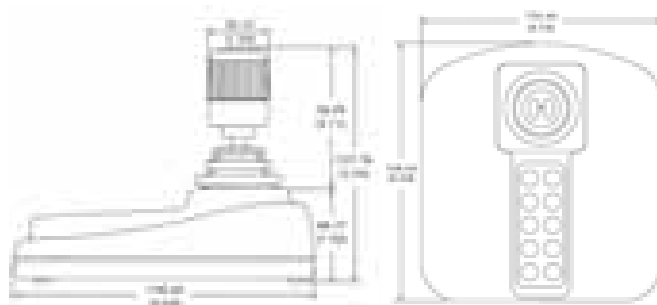
Technical specifications

Joystick performance	Hall effect three axes joystick X/Y/Z for positioning control
Joystick Travel	36° for X and Y axes 60° for Z axis
Centering	Single spring, omni directional
Joystick shaft	Stainless steel
Joystick boot	Neoprene
Joystick handle	Glass filled nylon
Pushbutton performance	10 tactile pushbuttons on housing Two tactile pushbuttons on joystick 3,000,000 cycles
Desktop housing	High impact ABS
Power	Via USB interface (5V DC) Consumption 32mA
Interface	USB port
Connectors	USB Type A Male Cable Length: 2m; 6ft. 6.8in
Systems support integration	Windows 7, Vista, XP, and 2000
Supported Protocols	USB HID 1.1 game controller Direct X (Gaming Control) Joystick: Three HID axes Pushbuttons: 12 HID buttons Uses standard DirectX HID drivers Connects directly to workstation PC
Weight	1.0 lb (440 g)
Operating Temperature	-13°F ~ +185°F (-25°C ~ +85°C)
Certifications and Approval	
Product Certifications	CE: EN 55024:1998, EN 55022; FCC Part 15 Subpart B Class B; RoHs compliant

Ordering information

V2215-J1 USB Desktop Controller for Infinova PTZ and IP PTZ dome cameras

Dimensions



(Unit: mm, in the parentheses is inch)

V2401 Series

Video Distribution Amplifiers

Infinova[®]
The Integrator's Manufacturer



- **4 or 16 video outputs from a single video input**
- **Status indicating LEDs**
- **B & W or color video compatible**
- **Wide frequency response**
- **No adjustment required**

In most CCTV installations, video signals may need to be sent over a long distance for viewing at remote sites. Long distance transmission or video looping for multiple sources of the same signal can cause total video signal loss, attenuation, and significant signal degradation. V2401 Series Video Distribution Amplifier provides a solution to these problems.

V2401-4 generates up to four video outputs from a single video input source; V2401-16 Video Distribution Amplifier provides a maximum of 16 video outputs. Each newly generated output is equal to the original input source. V2401 will amplify the video signal and distribute it to each of its outputs that can then be used for multiple operations that would normally require looping on the same signal. V2401 features color or B&W video capabilities, a wide frequency response and status indicating LEDs.

Technical specifications

Video

Video Input	1.0 Vp-p composite signal, 75 Ohm BNC
Video Output	1.0 Vp-p composite signal, 75 Ohm BNC
Maximum video outputs	4 or 16 outputs
Amplitude-Frequency Characteristics	±1.0dB (5.8 MHz)
Bandwidth	5Hz to 7.5MHz

Electrical

Supply Voltage	120VAC/60Hz; 230VAC/50Hz
Power Requirements	<3 W
Power Cord	3-wire grounded, 18 AWG

Mechanical

Dimensions (H × W × D)	1.75" x 8.11" x 10.5" (44mm x 206mm x 262mm)
Package Size (H × W × D)	6.7" x 9.3" x 14.0" (171mm x 235mm x 355mm)
Unit Weight	3.74lbs. (1.7 kg)
Shipping Weight	4.4lbs. (2 kg)
Mounting	Desktop or rack mount optional

Environmental

Operating Temperature	32°F~140°F (0°C~60°C)
Operating Humidity	0~90%RH (non-condensing)

Certifications and Approval

Product Certifications	V2401-4, V2401-4X: CE/LVD¹: EN60950-1:2006; CE/EMC²: EN 55022, EN 55024; FCC³ Class A; V2401-16, V2401-16X: CE/LVD⁴: EN60950-1:2006; CE/EMC⁵: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3; FCC⁶ Class A; V2401-4, V2401-4X, V2401-16, V2401-16X: UL, cUL, ISO 9001:2008
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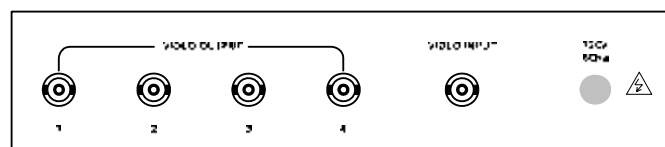
Certificate No.: ¹ RSZ07080901-3; ² RSZ070809041&2; ³ RSZ07080904; ⁴ BCT09GR-607S;

⁵ RSZ07121702-1&2; ⁶ RSZ07121703.

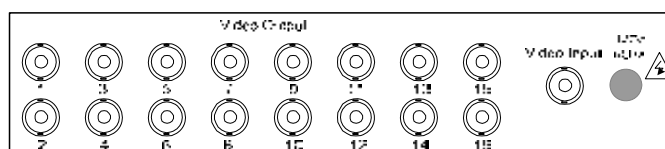
Ordering information

V2401-4	Video distribution amplifier, 1 V In, 4 V Out, 120VAC/60Hz
V2401-16	Video distribution amplifier, 1 V In, 16 V Out, 120VAC/60Hz
V2401-4X	Video distribution amplifier, 1 V In, 4 V Out, 230VAC/50Hz
V2401-16X	Video distribution amplifier, 1 V In, 16 V Out, 230VAC/50Hz

Panel diagrams



V2401-4 Rear Panel

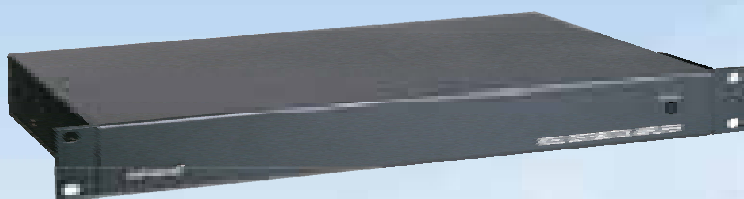


V2401-16 Rear Panel

V2403 Series

Video Looping Amplifier

Infinova[®]
The Integrator's Manufacturer



- **1 set of 4 video inputs, 8 sets of 4 video outputs**
- **1 set of 8 video inputs, 4 sets of 8 video outputs**
- **1 set of 16 video inputs, 2 sets of 16 video outputs**
- **Compact design and easy installation**
- **LED indicator for system power status**
- **B & W or color video compatible**
- **Wide frequency response**
- **No adjustment required**
- **Desktop or rack mounting optional**

In most CCTV installations, video may be needed for different purposes such as recording and switching. The V2403-16 video distribution amplifier provides 8 sets of 4 video outputs from one set of 4 video inputs, 4 sets of 8 video outputs from one set of 8 video inputs and 2 sets of 16 video outputs from one set of 16 video inputs. The V2403-16 distributes each video signal into 8, 4, or 2, with no adjustments required.

The V2403 provides a flexible solution of extending the original video from the camera for output to both DVR or other recording devices and matrix switching systems for a maximum of security coverage.

Other features include B&W and color video compatibility and a wide range of frequency response. Rack and desktop mounting versions are available.

Technical specifications

Video

Video input	1.0 Vp-p composite signal, 75 Ohm BNC
Video output:	1.0 Vp-p composite signal, 75 Ohm BNC
Maximum Video Inputs	16
Maximum Video Outputs	2 sets of 16
Amplitude-Frequency Characteristics	±1.0dB (5.8 MHz)
Bandwidth	5Hz to 7.5MHz

Electrical

Supply Voltage	100~240VAC
Power Requirements	<6 W

Mechanical

Dimension (H × W × D)	1.7" × 19.0" × 10.2" (44mm × 483mm × 260mm)
Package Size (H × W × D)	4.6" × 22.0" × 15.7" (117mm × 559mm × 400mm)
Unit Weight	3.41lbs. (1.55 kg)
Shipping Weight	7.1lbs. (3.23 kg)
Mount	Optional 19" rack mounting or desktop mounting

Environmental

Temperature (indoor)	32°F ~122°F (0°C ~ 50°C)
Humidity (indoor)	0 ~ 90 % RH (non-condensing)

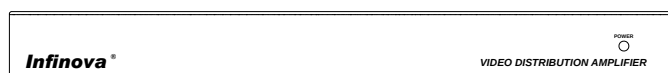
Certifications and Approval

Product Certifications	CE, FCC, UL, cUL, ISO 9001:2008
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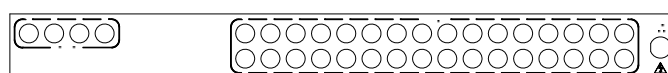
Ordering information

V2403-4	Video looping panel with amplifier, 1 set of 4V In, 8 sets of 4V Out, 100~240VAC
V2403-8	Video looping panel with amplifier, 1 set of 8V In, 4 sets of 8V Out, 100~240VAC
V2403-16	Video looping panel with amplifier, 1 set of 16 V In, 2 sets of 16 V Out, 100~240VAC

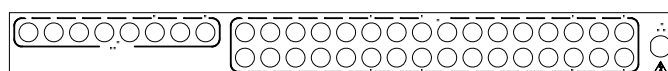
Panel diagrams



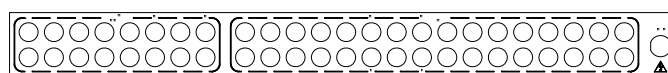
Front Panel



V2403-4 Rear Panel



V2403-8 Rear Panel



V2403-16 Rear Panel

V2405A-4 Series

RS-232 Data Port Expander

Infinova[®]
The Integrator's Manufacturer



- **Expands a single RS-232 data port into 4 RS-232 ports (allows four keyboards to be connected to a single port)**
- **Selectable baud rate**
- **LED lamps to indicate the power and communication status**

The V2405A-4 data port expander interfaces with any Infinova matrix switcher via a single RS-232 port. Through the V2405A-4, the connected port is expanded to as many as 4 RS-232 ports, for connection to devices, such as keyboards, PCs and printers.

V2405A-4 is compatible with matrices produced by Infinova and other main producers.

Technical specifications

Communication

Port	RJ-45
Protocol	RS-232
Baud Rate(bps)	4800, 9600

Electrical

Input Voltage	100~240VAC, 50/60Hz
Power Requirements	< 3W

Mechanical

Dimensions (H × W × D)	1.8" × 19.0" × 10.8" (45mm × 483mm × 275mm)
Package Size (H × W × D)	5.5" × 22.0" × 15.5" (140mm × 559mm × 393mm)
Unit Weight	4.9lbs. (2.2kg)
Shipping Weight	6.4lbs. (2.9kg)
Mounting	Surface or rack mounting

Environmental

Operating Temperature	32°F ~ 104°F (0°C ~ 40°C)
Humidity	0 ~ 90 % RH (non-condensing)

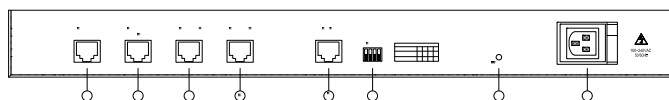
Certifications and Approval

Product Certifications	CE, FCC, ISO 9001:2008
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Ordering information

V2405A-4 Communication port expander, 1 RS-232 In, 4 RS-232 Out, 100~240VAC self-adaptive

Panel diagram



- | | |
|---------------------|--------------------------|
| (1) Keyboard Port A | (2) Keyboard Port B |
| (3) Keyboard Port C | (4) Keyboard Port D |
| (5) RS-232 Port | (6) Baud (Set baud rate) |
| (7) Reset | (8) Power |

V2410 Series

RS-485 Code Distributor

Infinova[®]
The Integrator's Manufacturer



- **One RS-485 code input, 16 RS-485 code outputs**
- **Code and power indicators**
- **Compatible with V2011 and V2015 Matrix Switching Systems**
- **Screw terminal connectors to make the installation easy and quick**

The V2410 series RS-485 control code distributor provides a maximum of 16 buffered RS-485 control code outputs to Infinova series receivers and super domes from a single control code source input. One control code distributor processes information for a maximum of 16 receivers. The V2410 series are compatible with V2011 and V2015 series matrix switching systems and control code sources.

Technical specifications

General

RS-485 Connector	Plug-in terminal connector double shielded
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Electrical

Input Voltage	120VAC/60Hz; 230VAC/50Hz
Power Requirements	2 W

Mechanical

Dimensions (H × W × D)	1.75" × 8.23" × 10.3" (44mm × 209mm × 262mm)
Package Size (L × W × H)	4.3" × 10.7" × 14.3" (108mm × 273mm × 362mm)
Unit Weight	3.09lbs. (1.40 kg)
Shipping Weight	4.9lbs. (2.2 kg)

Environmental

Operating Temperature	32°F ~ 104°F (0°C ~ 40°C)
Operating Humidity	0 ~ 90% RH (non-condensing)

Certifications and Approval

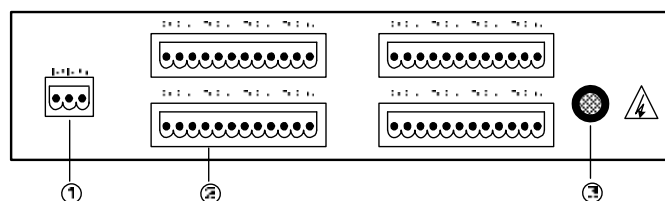
Product Certifications	CE/EMC ¹ : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3; FCC ² Class A; UL, cUL, ISO 9001:2008
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Certificate No.: ¹ RSZ07121702-1&2; ² RSZ07121703.

Ordering information

V2410	Code Distributor, RS-422/RS-485, 1 V In, 16 V Out, uni-directional, 120VAC/60Hz
V2410X	Code Distributor, RS-422/RS-485, 1 V In, 16 V Out, uni-directional, 230VAC/50Hz

Panel diagram



- (1) RS-485 code input
- (2) 16 RS-485 code outputs
- (3) Power inlet

V2411 Series

Code Converter/Distributor

Infinova[®]
The Integrator's Manufacturer



- **Interfaces with matrix switchers V2015, V2020 and V2040 via high-speed data line (HSDL)**
- **Generates up to 16 RS-485 Outputs from one HSDL input**
- **DIP switch selectable 3rd party dome protocols**
- **Status indicating LEDs for power and data connections**
- **Selectable camera groups, baud rate and protocols via**
- **DIP switch**
- **Screw terminal connectors to simplify installation**

The V2411 series control code converter/distributor receives one high-speed data line (HSDL) code input from a matrix switcher/controller and provides 16 RS-485 output. For example, an HSDL input line can generate 16 RS-485 outputs with protocols such as Pelco-P/D, Vicon, Bosch Biphase, Kalatel and Samsung. The output codes can provide control of PTZ, domes, lenses, zoom, iris, focus as well as certain auxiliary equipments.

Multiple V2411 units can be cascaded on the same original high-speed data line source to control up to 1,024 cameras.

Technical specifications

General

HSDL 1	Input/output BNC interface
HSDL 2	Input/output BNC interface

Electrical

Input Voltage	100~240VAC, 60/50Hz
Power Requirements	2.8 W

Mechanical

Dimensions (H × W × D)	1.7" × 8.2" × 10.3" (44mm × 209mm × 262mm)
Package Size(H × W × D)	4.3" × 10.7" × 14.3" (108mm × 273mm × 362mm)
Unit Weight	3.3lbs. (1.5kg)
Shipping Weight	5lbs. (2.26kg)

Environmental

Temperature	32°F ~ 104°F (0°C ~ 40°C)
Humidity	0~90 % RH (non-condensing)

Certifications and Approval

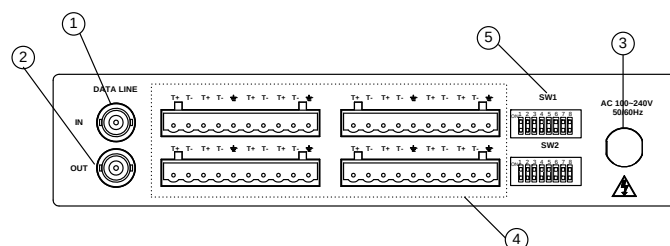
Product Certifications	V2411: CE/EMC ¹ : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3; CE/LVD ² : EN 60950-1:2006 V2411, V2411U: FCC, ISO 9001:2008
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Certificate No.: ¹ CTE09030003; ² CTS09030002.

Ordering information

V2411	Code converter/distributor, high speed data line (HSDL) input, 16 Infinova RS-485 outputs, 100~240VAC, 60/50Hz
V2411U	Code converter/distributor, high speed data line (HSDL) input, 16 Multi-protocol RS-485 outputs, 100~240VAC, 60/50Hz
V2991-1	Rack mount kit for one 8-inch unit, 1U height
V2991-2	Rack mount kit for two 8-inch units, 1U height

Panel diagram



- (1) HSDL input
- (2) HSDL output
- (3) Power cord
- (4) RS-485 control code outputs
- (5) Switches

V2413 Series

Multiple-Protocol Data Merger/Code Distributor

Infinova[®]
The Integrator's Manufacturer



- Provides one Manchester/Biphase input, one HSDL input, and two RS-485 inputs
- Provides 16 Manchester/Biphase, 16 RS-485 or 8 RS-422 code outputs, which can control a maximum of 16 pan/tilts or decoders
- Sets control priority levels for all input protocols
- Communicates with other matrixes via Manchester/Biphase, HSDL or RS-485
- Compatible with Infinova series video matrix switching/control system

V2413 series multi-protocol data merger/code distributor is used for converting high-speed data line (HSDL), RS-485, Manchester/Biphase code input from any Infinova video matrix switching/control system to Manchester/Biphase, RS-485 or RS-422 control code signal, so as to realize the control over Manchester/Biphase or RS-485 series front-end decoders and domes by video matrixes or any third party controlling devices. The V2413 series multi-protocol data merger/code distributor is compatible with HSDL, RS-485, and Manchester/Biphase protocols.

Meanwhile, it is available to set priority levels for input protocols of V2413 multiple-protocol data merger/code distributor, so as to meet clients' different requirements.

Technical specifications

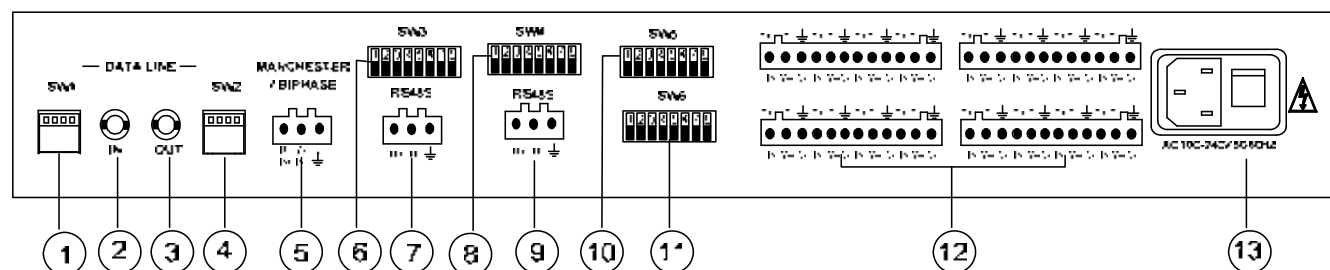
Dimensions (H × W × D)	1.77" × 19.02" × 10.83" (45mm × 483mm × 275mm)
Package Size (L × W × H)	15.5" × 22.0" × 5.5" (393mm × 559mm × 140mm)
Unit Weight	4.4 lbs. (2.0 kg)
Shipping Weight	6.4 lbs. (2.9 kg)
Power Supply	100~240VAC, 50/60Hz
Power Consumption	7 W
Mount	Rack mount, desk, or wall mount optional
Operating Temperature	32°F ~ 104°F (0°C~40°C)
Operating Humidity	0~90%RH (non-condensing)
Certifications and Approval	
Product Certifications	CE/EMC ¹ : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3; CE/LVD ² : EN 60950-1:2006; FCC ³ : Part 15 Subpart B; UL, cUL, ISO 9001:2008

Certificate No.: ¹ BCT08LC-994E; ² BCT08LC-996S; ³ BCT08LC-995E.

Ordering information

V2413A	Code/data merger/distributor, multiple protocols input, 16 RS-485 or 8 RS-422 outputs, 100~240VAC self-adaptive
V2413MA	Code/data merger/distributor, multiple protocols input, 16 Manchester/Biphase outputs, 100~240VAC self-adaptive

Panel diagram



- (1) HSDL priority level setting
- (2) HSDL input
- (3) HSDL output
- (4) Manchester/Biphase input protocol selection and priority level setting
- (5) Manchester/Biphase Input
- (6) The first RS-485 input baud rate, priority level and protocol setting
- (7) The first RS-485 protocol input
- (8) The second RS-485 input baud rate, priority level and protocol setting
- (9) The second RS-485 protocol input
- (10) Output baud rate and protocol selection (it is null for Manchester/Biphase output)
- (11) Manchester/Biphase output protocol selection or RS-485/RS-422 working pattern selection and output controllable camera range setting
- (12) Manchester/Biphase/RS-485/RS-422 output
- (13) Power input and switch

V2414 Series

Up-the-Coax Code Converter

Infinova[®]
The Integrator's Manufacturer



- Provides one Manchester code ,one HSDL(high-speed data line) and one RS-485 code input
- Provides 16 control signal outputs to control 16 up-the-coax protocol Infinova PTZ domes
- Can control all input protocols
- Multiple protocols and baud rates optional for RS-485 input
- The address number of PTZ domes or decoders controlled can be expanded
- Communicates with Infinova series matrix switchers via Manchester code, HSDL or RS-485
- Compatible with Infinova video matrix switching systems

The V2414 up-the-coax code converter is used to convert Manchester control code, HSDL, or RS-485 control code from Infinova series video matrix switchers to up-the-coax control signals for control over the up-the-coax series receivers/dome cameras. The V2414 up-the-coax code converter is compatible with HSDL, RS-485 and Manchester protocol.

The input protocol setup for the V2414 up-the-coax code converter is optional to meet the various requirements of the customers.

Technical specifications

Electrical

Input Voltage	120VAC/60Hz, 230VAC/50Hz
Power Requirements	8 W

Mechanical

Dimensions (H × W × D)	1.77" × 19.02" × 10.83" (45mm × 483mm × 275mm)
Package Size (H × W × D)	5.5" × 22.0" × 15.5" (140mm × 559mm × 393mm)
Unit Weight	4.4 lbs. (2.0 kg)
Shipping Weight	7.9lbs. (3.6 kg)
Mount	Rack mount, desk, or wall mount optional

Environmental

Temperature (indoor)	32°F ~ 104°F (0°C ~ 40°C)
Humidity (indoor)	0 ~ 90% RH (non-condensing)

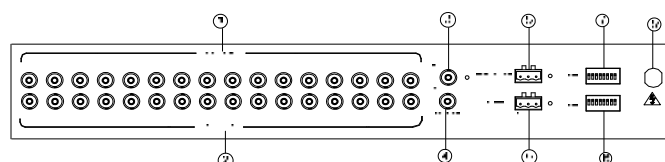
Certifications and Approval

Product Certifications	CE, FCC, UL, cUL, ISO 9001:2008
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Ordering information

V2414	Code converter/distributor, Manchester, HSDL and RS485 Input, 16 Up-the-Coax protocol outputs (compatible with Coaxitron), 120VAC/60Hz
V2414X	Code converter/distributor, Manchester, HSDL and RS485 Input, 16 Up-the-Coax protocol outputs (compatible with Coaxitron), 230VAC/50Hz

Panel diagram



- (1) Video input (control command output)
- (2) Video output
- (3) HSDL input
- (4) HSDL output
- (5) Manchester code input
- (6) RS-485 input
- (7) Baud rate and protocol selection (4 bits for each)
- (8) Input selection (2 bits) and address grouping (6 bits)
- (9) Power cord

V2421A Series

Switch Follower

Infinova[®]
The Integrator's Manufacturer



- **32 addressable & programmable Form-A relays**
- **Select camera groups and monitor groups via DIP switch**
- **Multiple units can be cascaded down the same single data stream**
- **Power supply and data LEDs to indicate system status**
- **Interfaces with the V2011 and V2015 matrix switcher/controller via Manchester code**
- **Interfaces with V2015, V2020 and V2040 matrix switcher/controllers via high-speed data line (HSDL)**
- **Compatible with Infinova series video matrix switching system**

The V2421A series switch follower is compatible with all Infinova matrix switching systems. The unit can provide up to 32 addressable Form-A relay outputs. The relays can be grouped in series and addressed to a single monitor, or can be split into two groups of 16 for two specific monitors. The operator may use the DIP switch located in the rear panel to select the camera and monitor group.

A specific relay will close when the associated camera is switched to the monitor by manual operation of the keyboard or by the system tour.

Multiple V2421A units can be cascaded together to provide more relay outputs.

Technical specifications

Connections

Alarm Output	Detachable screw terminals
Relay Output	Two groups, 16 relays for each group
High-speed Data Line	BNC interface, input/output
Manchester	Screw terminal connectors, two wires

Electrical

Input Voltage	100~240VAC, 50/60Hz
Power Requirements	8 W

Mechanical

Dimension (H × W × D)	3.5" × 19" × 8" (89mm × 483mm × 204mm)
Package Size (H × W × D)	15" × 22.5" × 6.3" (159mm × 571mm × 381mm)
Unit Weight	7.7lbs. (3.5 kg)
Shipping Weight	10.6lbs. (4.81 kg)

Environmental

Temperature (indoor)	32°F ~ 104°F (0°C ~ 40°C)
Humidity (indoor)	0 ~ 90% RH (non-condensing)

Certifications and Approval

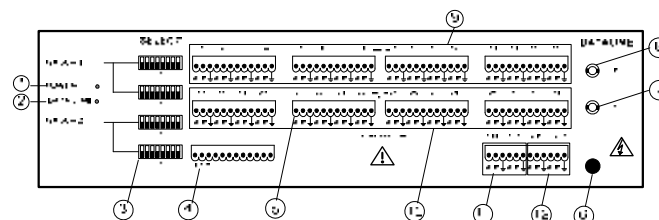
Product Certifications	CE/LVD ¹ : EN 60950-1:2006; FCC ² : Part 15 Subpart B; UL, cUL, ISO 9001:2008
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Certificate No.: ¹ CTS09030007; ² BCT09FC-498E.

Ordering information

V2421A Switch follower, 32 relay outputs, 100~240VAC, self-adaptive

Panel diagram



- | | |
|---------------------------------|---------------------------------|
| (1) Power Supply Indicator | (2) Data Indicator |
| (3) DIP Switch | (4) Manchester Code Input |
| (5) Form-A Relay | (6) Power Supply |
| (7) HSDL Output | (8) HSDL Input |
| (9) Relay Group 1 | (10) Relay Group 2 |
| (11) Relay Group 1 Input/Output | (12) Relay Group 2 Input/Output |

V2422A Series

Alarm Follower

Infinova[®]
The Integrator's Manufacturer



- **32 addressable & programmable Form-A relays**
- **Select alarm monitor groups via DIP switch**
- **Multiple units can be cascaded down the same single data stream**
- **Power supply and data LEDs to indicate system status**
- **Interfaces with V2015, V2020 and V2040 matrix switcher/controllers via high-speed data line (HSDL)**

The V2422A provides 32 relay outputs to follow alarm monitors.

The addressable Form-A relays are divided into 2 groups of 16. Each relay group can be individually programmed in order to respond to linked matrix switcher alarm events. These relays can control auxiliary equipments such as video recorders.

Technical specifications

Connections

Relay Output	Two groups, 16 relays for each group
HSDL	BNC interface, input/output

Electrical

Input Voltage	100~240VAC, 50/60Hz
Power Requirements	8 W

Mechanical

Dimension (H × W × D)	3.5" × 19" × 8" (89mm × 483mm × 204mm)
Package Size (H × W × D)	15" × 22.5" × 6.3" (159mm × 571mm × 381mm)
Unit Weight	7.7lbs. (3.5 kg)
Shipping Weight	10.6lbs. (4.81 kg)

Environmental

Temperature (indoor)	32°F ~ 104°F (0°C ~ 40°C)
Humidity (indoor)	0 ~ 90% RH (non-condensing)

Certifications and Approval

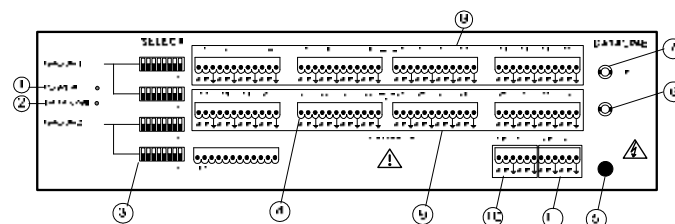
Product Certifications	CE/EMC ¹ : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3; CE/LVD ² : EN 60950-1:2006; FCC ³ : Part 15 Subpart B; UL, cUL, ISO 9001:2008
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Certificate No.: ¹ CTE09030003; ² CTS09030007; ³ BCT09FC-498E.

Ordering information

V2422A Alarm follower, 32 relay outputs, 100~240VAC, self-adaptive

Panel diagram



- | | |
|---------------------------------|---------------------------------|
| (1) Power Supply Indicator | (2) Data Indicator |
| (3) DIP Switch | (4) Form-A Relay |
| (5) Power Supply | (6) HSDL Output |
| (7) HSDL Input | (8) Relay Group 1 |
| (9) Relay Group 2 | (10) Relay Group 1 Input/Output |
| (11) Relay Group 2 Input/Output | |

V2423A Series

Auxiliary Follower

Infinova[®]
The Integrator's Manufacturer



- **32 addressable & programmable Form-A relays**
- **Multiple units can be cascaded down the same single data stream**
- **Power supply and data LEDs to indicate system status**
- **Select camera groups and auxiliary equipments via DIP-switch**
- **Interfaces with V2015, V2020 and V2040 matrix switchers/controllers via high speed data lines (HSDL) and V2011 and V2015 via Manchester code**
- **Compatible with Infinova series video matrix switching system**

The V2423A auxiliary follower provides 32 addressable Form-A relays to synchronize with the switching of auxiliary contacts that are associated with individual video inputs.

The relays can be split into two groups of 16 for each group, and can be sent to follow a specific instruction to activate a door switch or auxiliary lighting equipment etc. Multiple units can be cascaded to provide more relay outputs.

Technical specifications

Connections

Relay Output	Two groups, 16 relays for each group
HSDL	BNC interface, input/output
Manchester	Screw terminal connectors, two wires

Electrical

Input Voltage	100~240VAC, 50/60Hz
Power Requirements	8 W

Mechanical

Dimension (H × W × D)	3.5" × 19" × 8" (89mm × 483mm × 204mm)
Package Size (H × W × D)	15" × 22.5" × 6.3" (159mm × 571mm × 381mm)
Unit Weight	7.7lbs. (3.5 kg)
Shipping Weight	10.6lbs. (4.81 kg)

Environmental

Temperature (indoor)	32°F ~ 104°F (0°C ~ 40°C)
Humidity (indoor)	0 ~ 90% RH (non-condensing)

Certifications and Approval

Product Certifications	CE/LVD ¹ : EN 60950-1:2006; FCC ² : Part 15 Subpart B; UL, cUL, ISO 9001:2008
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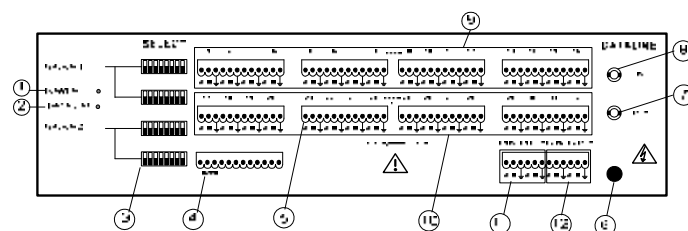
Certificate No.: ¹ CTS09030007; ² BCT09FC-498E.

Ordering information

V2423A

Auxiliary Follower, 32 relay outputs,
100~240VAC, self-adaptive

Panel diagram



- | | |
|---------------------------------|---------------------------------|
| (1) Power Supply Indicator | (2) Data Indicator |
| (3) DIP Switch | (4) Manchester Code Input |
| (5) Form-A Relay | (6) Power Supply |
| (7) HSDL Output | (8) HSDL Input |
| (9) Relay Group 1 | (10) Relay Group 2 |
| (11) Relay Group 1 Input/Output | (12) Relay Group 2 Input/Output |

V2431 Series

Alarm Interface

Infinova[®]
The Integrator's Manufacturer



- **Manages up to 64 alarm inputs**
- **Up to 16 units can be cascaded together on a single RS-232 data stream to provide a total of 1,024 alarms**
- **Select to accept normally open or normally closed alarm inputs via DIP switch**
- **1 relay output available to activate recording, alarm, lights or other devices**
- **Compatible with all Infinova matrix switcher/controller systems**
- **Screw terminal connectors to simplify installation**

The V2431 alarm interface is compatible with all Infinova matrix switcher/controllers and utilizes RS-232 interfaces to communicate.

The alarm interface unit is capable of receiving up to 64 normally open or normally closed alarm inputs. Multiple units can be cascaded down the same data stream to provide up to 1,024 alarm inputs.

The V2431 is equipped with two RS-232 ports which forward information to the matrix for processing and response. Each alarm contact input forwarded to the matrix system is programmed to trigger specific actions throughout the system. LEDs are provided to indicate power and alarm activity.

Technical specifications

Operational

Alarm Inputs	64 contact closures (Closures to ground or 0 V to 5 V logic levels), N/O or N/C; Programmable in blocks of 8
Address Range	16 blocks of 64 for maximum of 1,024
Alarm Outputs	RS-232, communicate with system CPU via RJ-45 connector
Alarm Indication	LED & Form-C relay output
LEDs	2 (power and alarm)

Connectors

RS-232	RJ-45
Alarm Inputs	Eleven 12-pin removable screw terminals

Electrical

Input Voltage	120VAC/60Hz, 230VAC/50Hz
Power Requirements	8 W

Mechanical

Dimension (H × W × D)	3.5" × 19" × 8" (89mm × 483mm × 204mm)
Package Size (H × W × D)	6.3" × 22.5" × 15" (159mm × 571mm × 381mm)
Unit Weight	6.8 lbs. (3.1 kg)
Shipping Weight	9.9 lbs. (4.5 kg)

Environmental

Temperature (indoor)	32°F ~ 104°F (0°C ~ 40°C)
Humidity (indoor)	0 ~ 90% RH (non-condensing)

Certifications and Approval

Product Certifications	CE/EMC ¹ : EN 55022, EN 55024, EN 61000-3-2, EN: 61000-3-3; CE/LVD ² : EN 60950-1:2006; FCC ³ : Part 15 Subpart B; UL, cUL, ISO 9001:2008
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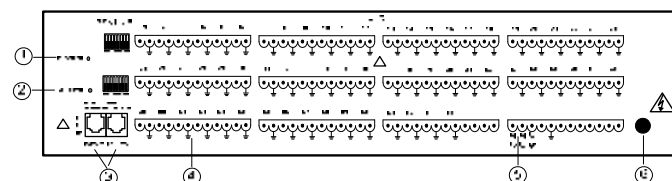
Certificate No.: ¹ CTE09030003; ² CTS09030003; ³ BCT09FC-498E.

Ordering information

V2431 Alarm Interface, 64 alarm inputs, 120VAC/60Hz

V2431X Alarm Interface, 64 alarm inputs, 230VAC/50Hz

Panel diagram

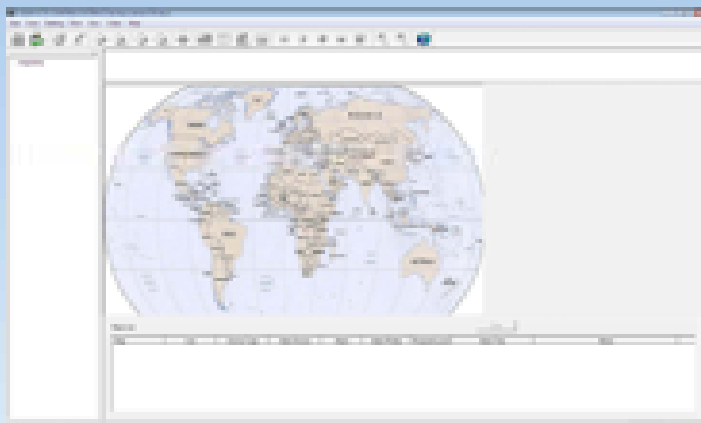


- | | |
|----------------------------------|---------------------|
| (1) Power Indicator | (2) Alarm Indicator |
| (3) Communication Ports (RS-232) | (4) Alarm Inputs |
| (5) Alarm Relay Output | (6) Power Cord |

V2210 Series

Matrix Switcher Video Management Software

Infinova[®]
The Integrator's Manufacturer



- **Compatible with matrix, alarm interface, access control and IP dome camera**
- **User priority level can be defined to limit certain operations**
- **Supports CCTV centralized management**
- **On-screen simulated keyboard**
- **Supports live video display, compatible with DVR video, Network video and multiple video cards**
- **Electronic maps and graphics**
- **Integrates with Port Alarm, Network Alarm, and VISTA Network Alarm**
- **PTZ, lens and auxiliary switch control**
- **Supports intelligent operations of dome cameras**
- **Provides alarm scheme**
- **Network time synchronization**

The V2210 is a video management software package for controlling a complete CCTV system. The V2210 controls Infinova matrix switchers and receives network alarm via TCP/IP network; controls alarm interfaces and multiplexers via RS-232 serial ports. The V2210 allows an entire CCTV system to be controlled from a single PC platform.

The V2210 is compatible with powerful access control module, making user to get real time details of access control, such as video materials of cardholder, and real time video image. It also supports event handling, which can call the e-map of any details and display the video image of the event. Besides, some small icons to indicate operating actions are provided, helping user to handle event more convenience.

Username and password login screens are provided for a maximum level of security. The login feature also ensures that users can only operate the system at his/her own authorized level of administration. When appropriate video server is supplied, the system supports real-time on-screen video display. V2210 features a built-in module that simplifies the operation of Infinova multiplexers.

System features

Multilevel Control and Graph Display

- High security level
- 64 control levels to limit user's operations exactly
- Complete graph display and icon edit
- All operations can be saved

CCTV Management and Control

- Performs switch, preview and PTZ control over the cameras connected to matrixes
- Performs tour and salvo
- Provides simulated keyboard to control matrix's operation

Alarm and Network Alarm

- Links with alarm devices and CCTV devices
- Timing arming/disarming and alarm events record are provided
- Integral arming/disarming. Input alarm events upon alarm response for backup
- User with lower control level can not control alarm and link of higher level
- Supports Vista alarm ,Vista network alarm and alarm link

Multiplexer Control

- A simulated on-screen control panel allows users to operate rapidly
- 4/9/16 photos display
- Multiple CCTV modules can be defined, and the modules' start time can be set separately
- Starts the control icon, and then it will perform CCTV link control according to the setup

TV Wall Operation

- Self-design the TV wall module, and easily switch it by mouse

Ordering information

- V2210-S Matrix GUI software, LAN control for network switchers, no PC video capture card, supports LAN video
- V2210-K Matrix GUI software, LAN control for network switchers, w/PC video capture card, supports LAN video

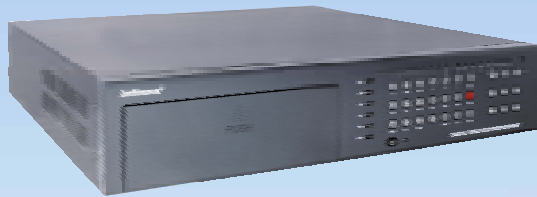
System requirements

System Required	PC platform
Hardware Requirements	Intel® Pentium® IV 2.6G (or better) with 64MB RAM available Graphics card with 1024x768 resolution
Operating System	Windows 2003, Windows 2008, Windows XP or Windows 7
Ports Required	Ethernet/LAN (Additional serial ports will be required if multiple systems are being controlled)
Parallel Port	1
Operating Device	Mouse and keyboard
Video Server	Use video server recommended by Infinova

V3060 Series

Embedded Network Digital Video Recorder

Infinova[®]
The Integrator's Manufacturer



- **H.264 video compression and G.711A audio compression**
- **Up to 16-ch analog video inputs, PAL/NTSC supported**
- **Dual-stream encoding, partial channels support up to 4CIF at major stream, and CIF/QCIF at minor stream**
- **1-ch VGA video output, 2-ch BNC video outputs (including 1-ch BNC auxiliary output)**
- **Preview group/manual switching**
- **Motion detection, video mask detection, video loss detection**
- **Supports various leading PTZ decoder control protocols, presets, and patterns**
- **Multiple recording types: manual, scheduled, alarm (including motion detection)**
- **Various alarm inputs such as hard disk full, illegal access, IP conflict, hard disk error**
- **Easy adjustment of resolution, code flow, frame rate and image quality**
- **Support intercom**
- **Support watermark technology**

V3060 series network digital video recorder is a new generation DVR which integrates multiple technologies such as embedded system, storage and network technologies.

V3060 series network DVR supports a maximum of 16 channels local video inputs with video looping and 16 channels audio inputs. Each analog channel supports H.264 dual-stream compression and the partial channels support up to 4CIF at the major stream. The recorder supports USB2.0 high-speed backup as well as simple mouse and keyboard operation. It also supports composite streams and video stream encoding. Audio and video are synchronized in composite stream encoding.

V3060 series network DVR can not only work independently at a local site, but also build a powerful security surveillance network. This series has been widely used in finance, public security, military, telecom, traffic, power station, education, and water projects.

Technical specifications

Video

Video Compression	H.264
Video Input	8/16-ch BNC (1.0Vp-p, 75Ω)
Video Output	2-ch BNC (1.0Vp-p, 75Ω); 1-ch VGA
Video Looping Output	8/16-ch BNC (1.0Vp-p, 75Ω)
Format Supported	PAL, NTSC
Recording Resolution	PAL: 4CIF (704 × 576), 2CIF (704 × 288), CIF (352 × 288), QCIF (176 × 144); NTSC: 4CIF (704 × 480), 2CIF (704 × 240), CIF (352 × 240), QCIF (176 × 120) Note: All channels support the maximum resolution of 4CIF, but only 2 channels can be set at 4CIF synchronously
Frame Rate	PAL: 1~25 fps; NTSC: 1~30 fps
Video Output Bit Rate	256kbps ~ 2.5Mbps, adjustable

Audio

Audio Compression	G.711A
Audio Input	8/16-ch, DB15 port
Audio Output	1-ch BNC (1.4Vp-p, 300Ω)
Intercom Input	1-ch BNC (1.0Vp-p, 75Ω)
Intercom Output	1-ch BNC (1.0 Vp-p, 75Ω)
Audio Output Bit Rate	16kbps

Port

Communication Port	1 RS-232 (RJ45); 1 RS-422 (4-pin terminal)
Network Port	1*10M/100M/1000M self-adaptive Ethernet port, RJ-45
Alarm	16 inputs, 4 outputs (5VDC)
USB	1, on rear panel; 1, on front panel

Storage

Hard Disk	V3060A: 8 SATA hard disks; V3060W: 4 SATA hard disks
Backup	External USB; Internal SATA DVD writer (V3060W)

Recording

Recording Mode	3 modes: manual, scheduled and alarm (including motion detection)
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Network

Protocol	TCP/IP, RTP, UDP, ICMP, DHCP, DNS, NTP, SNMP etc.
Others	Support narrow band connection; upload alarm signals through network

Operational

Operating System	Embedded Linux system
Users	Two-level user access management; three-level priority settings
Operation Methods	Front panel, remote controller, mouse and V2111 keyboard

Electrical

Power Supply	100~240VAC, self-adaptive
Power Consumption	< 45W (no HD); < 85W (with 8 HDs)
Power Off Protection	Power on self-recovery

Mechanical

Product Weight (No hard disk)	V3060A: 12.57lbs (5.7kg); V3060W: 14.33lbs (6.5kg)
Shipping Weight (No hard disk)	V3060A: 18.30lbs (8.3kg); V3060W: 20.50lbs (9.3kg)
Product Dimension (H × W × D)	3.50" × 17.32" × 17.72" (89mm × 440mm × 450mm)
Maximum Installation Dimension (H × W × D)	3.70" × 17.56" × 18.11" (94mm × 446mm × 460 mm) (Including the washer height, housing ear thickness and rear panel BNC terminal length), 19-inch (2U) EIA rack mounting

Environmental

Operating Temperature	14°F ~ 122°F (-10°C ~ 50°C)
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)
Humidity	5%~90% RH (non-condensing)

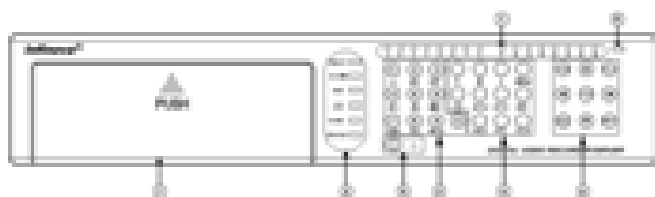
Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ ; FCC: Part 15 Subpart B ² ; ISO 9001:2008
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Certificate No.: ¹ BCT10KC-1869E; ² BCT10KC-1870E.

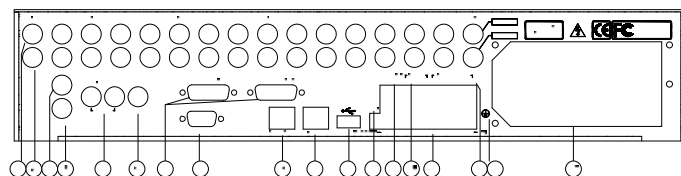
Panel View

Front Panel View



1. Channel Indicator
2. Numeric Keyboard Buttons and Assistant Buttons
3. System Indicator
4. System Control Buttons
5. Power On/Off Button
6. PTZ Control/Menu Control Buttons
7. Internal DVR Writer (invalid for V3060A)
8. Infrared receiver

Rear Panel View



(E.g.16-channel)

1. Video Input Ports
2. Video Looping Output Ports
3. Audio Line In Port
4. Audio Line Out port
5. Video Output
6. Audio Output
7. Audio Input
8. VGA Video Output Port
9. Ethernet Port
10. RS-232 Port
11. USB Port
12. RS422 Resistor Switch
13. Keyboard Port
14. RS-422 Port
15. Alarm Output
16. Alarm Input
17. Grounding Terminal
18. Power Supply and Cooling Fan

Ordering information

V3060W Digital Video Recorders-, SATA, Video Looping & Audio Inputs, partial 4CIF(D1), w/DVD writer, Includes Remote Client Software

8 - Channel		16 - Channel	
V3060W-08-1000	1 TB	V3060W-16-1000	1 TB
V3060W-08-2000	2 TB	V3060W-16-2000	2 TB
V3060W-08-3000	3 TB	V3060W-16-3000	3 TB
V3060W-08-4000	4 TB	V3060W-16-4000	4 TB
V3060W-08-5000	5 TB	V3060W-16-5000	5 TB
V3060W-08-6000	6 TB	V3060W-16-6000	6 TB
V3060W-08-7000	7 TB	V3060W-16-7000	7 TB
V3060W-08-8000	8 TB	V3060W-16-8000	8 TB

V3060A Digital Video Recorders, SATA, Video Looping & Audio Inputs, partial 4CIF(D1), No DVD writer, Includes Remote Client Software

8 - Channel		16 - Channel	
V3060A-08-1000	1 TB	V3060A-16-1000	1 TB
V3060A-08-2000	2 TB	V3060A-16-2000	2 TB
V3060A-08-3000	3 TB	V3060A-16-3000	3 TB
V3060A-08-4000	4 TB	V3060A-16-4000	4 TB
V3060A-08-5000	5 TB	V3060A-16-5000	5 TB
V3060A-08-6000	6 TB	V3060A-16-6000	6 TB
V3060A-08-7000	7 TB	V3060A-16-7000	7 TB
V3060A-08-8000	8 TB	V3060A-16-8000	8 TB

V3060W Digital Video Recorders, SATA, Video Looping & Audio Inputs, full CIF, w/ DVD writer, No hard disks

Note: Accepts up to 4 SATA 3.5 inch Drives

V3060W-08	8 Ch. (8V + 8A, Video Looping Outputs)
V3060W-16	16 Ch. (16V + 16A, Video Looping Outputs)

V3060A Digital Video Recorders, SATA, Video Looping & Audio Inputs, full CIF, No DVD writer, No hard disks

Note: Accepts up to 8 SATA 3.5 inch Drives

V3060A-08	8 Ch. (8V + 8A, Video Looping Outputs)
V3060A-16	16 Ch. (16V + 16A, Video Looping Outputs)

Hard Disks Ordering Information

V3091-1000S	SATA HD, 1TB
V3091-2000S	SATA HD, 2TB

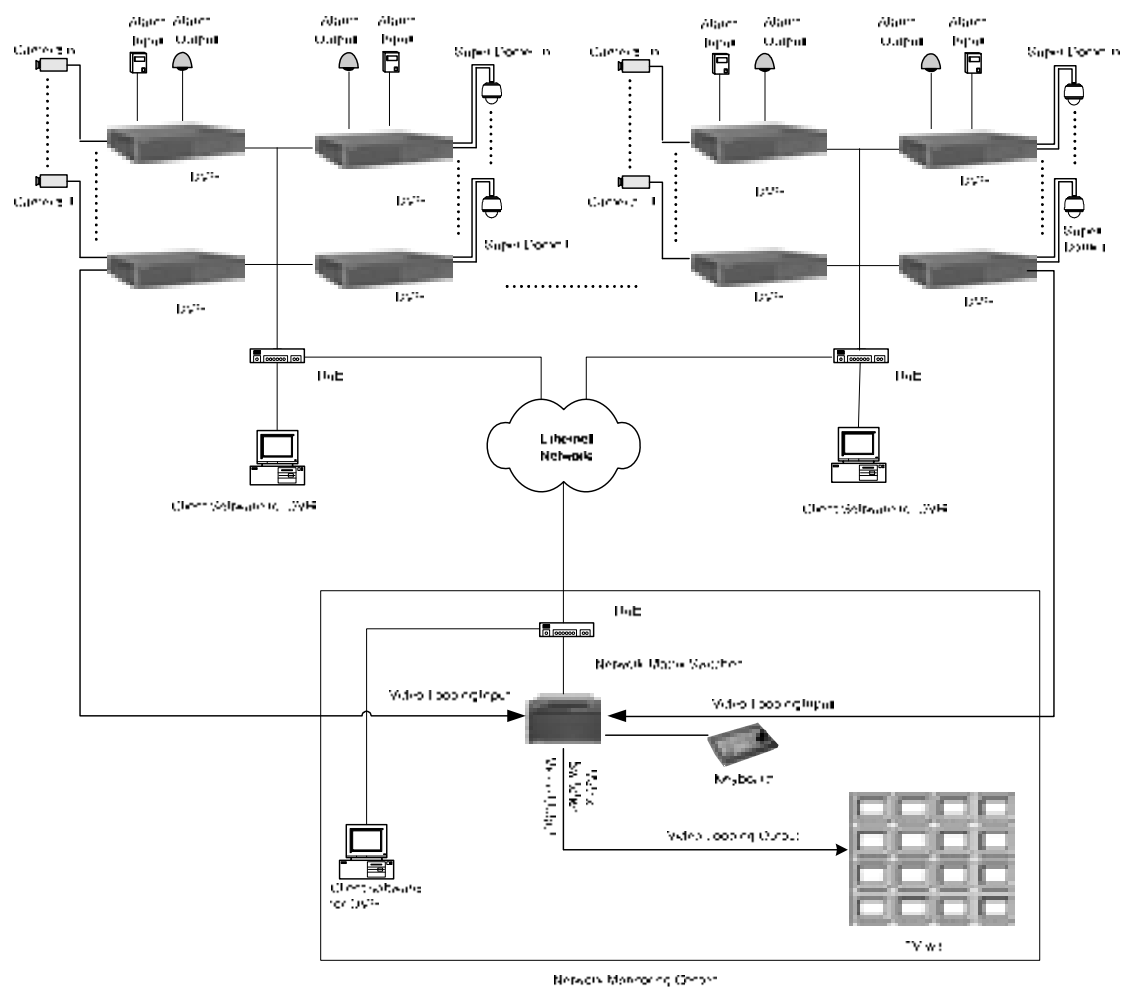
Internal DVD Drives Ordering Information

V3094S-P	DVD Writer, Internal SATA Interface
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Recommended Accessories

V2111	Keyboard, Dome & DVR Controller, Joystick, RS485 port, 120 VAC
V2111X	Keyboard, Dome & DVR Controller, Joystick, RS485 port, 230 VAC

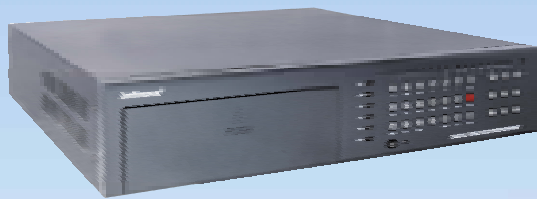
System Application



V3061 Series

Embedded Network Digital Video Recorder

Infinova[®]
The Integrator's Manufacturer



- **H.264 video compression and G.711A audio compression**
- **Up to 16-ch analog video inputs, PAL/NTSC supported**
- **Dual-stream encoding, main stream supports up to 4CIF, minor stream supports CIF/QCIF**
- **Three separate local outputs: VGA, main and auxiliary video outputs, audio output**
- **Motion detection, video mask detection, video loss detection**
- **Multiple recording types: manual, scheduled, alarm (including motion detection)**
- **Various alarm inputs such as hard disk full, illegal access, network break, IP conflict, hard disk error**
- **Easy adjustment of resolution, code flow, frame rate and image quality**
- **Supports intercom**
- **Watermark technology**

V3061 series network digital video recorder is a new generation DVR which integrates multiple technologies such as embedded system, storage and network technologies.

V3061 series network DVR supports a maximum of 16 channels local video inputs with video looping and 16 channels audio inputs. Each analog channel supports H.264 dual-stream compression with up to 4CIF (D1) resolution at the major stream. The recorder supports USB2.0 high-speed backup as well as simple mouse and keyboard operation. It also supports composite streams and video stream encoding. Audio and video are synchronized in composite stream encoding.

V3061 series DVR can not only work independently at a local site, but also build a powerful security surveillance network. This series has been widely used in finance, public security, military, telecom, traffic, power station, education and water projects.

Technical specifications

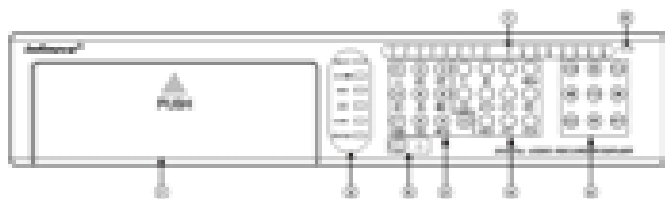
Video	
Video Compression	H.264
Video Input	8/16-ch BNC (1.0Vp-p, 75Ω)
Video Output	2-ch BNC (1.0Vp-p, 75Ω); 1-ch VGA
Video Looping Output	8/16-ch BNC (1.0Vp-p, 75Ω)
Format Supported	PAL, NTSC
Recording Resolution	PAL: 4CIF (704 × 576), 2CIF (704 × 288), CIF (352 × 288), QCIF (176 × 144); NTSC: 4CIF (704 × 480), 2CIF (704 × 240), CIF (352 × 240), QCIF (176 × 120)
Frame Rate	PAL: 1~25 fps; NTSC: 1~30 fps
Video Output Bit Rate	256 kbps ~ 2.5Mbps, adjustable
Audio	
Audio Compression	G.711A
Audio Input	8/16-ch, DB15 port
Audio Output	1-ch BNC (1.4Vp-p, 300Ω)
Intercom Input	1-ch BNC (1.0Vp-p, 75Ω)
Audio Output Bit Rate	16kbps
Port	
Communication Port	1 RS-232 (RJ45); 1 RS-422 (4-pin terminal)
Network Port	2*10M/100M/1000M self-adaptive Ethernet ports, RJ-45
Alarm	16 inputs, 4 outputs (5VDC)
USB	2, on rear panel; 1, on front panel
Storage	
Hard Disk	V3061A: 8 SATA hard disks; V3061W: 4 SATA hard disks
Backup	External USB; Internal SATA DVD writer (V3061W)
Recording	
Recording Mode	3 modes: manual, scheduled and alarm (including motion detection)
Network	
Protocol	TCP/IP, RTP, UDP, ICMP, DHCP, DNS, NTP, SNMP, etc.

Others	Support narrow band connection; upload alarm signals through network
Operational	
Operating System	Embedded Linux system
Users	Two-level user access management; three-level priority settings
Operation Methods	Front panel, remote controller, mouse and V2111 keyboard
Electrical	
Power Supply	100~240VAC, self-adaptive
Power Consumption	<45W (no HD); <85W (with 8 HDs)
Power Off Protection	Power on self-recovery
Mechanical	
Product Weight (No hard disk)	V3061A: 12.57lbs (5.7kg); V3061W: 14.33lbs (6.5kg)
Shipping Weight (No hard disk)	V3061A: 18.30lbs (8.3kg); V3061W: 20.50lbs (9.3kg)
Product Dimensions (H × W × D)	3.50" × 17.32" × 17.72" (89mm × 440mm × 450mm)
Maximum Installation Dimensions (H × W × D)	3.70" × 17.56" × 18.11" (94mm × 446mm × 460 mm) (Including the washer height, housing ear thickness and rear panel BNC terminal length), 19-inch (2U) EIA rack mounting
Environmental	
Operating Temperature	14°F ~ 122°F (-10°C ~ 50°C)
Storage Temperature	-4°F ~ 158°F (-20°C ~ 70°C)
Humidity	5%~90% RH (non-condensing)
Certifications and Approval	
Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 ¹ ; CE-LVD: EN 60950-1:2006 ² ; FCC: Part 15 Subpart B ³ ; ISO 9001:2008

Certificate No.: ¹ BCT10KC-1869E; ² BCT10KC-1869S; ³ BCT10KC-1870E

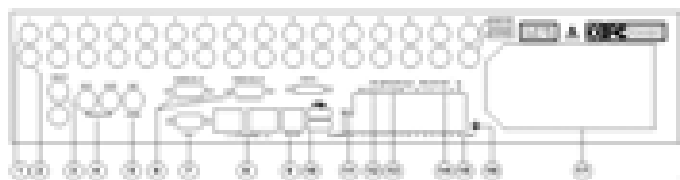
Panel View

Front Panel View



1. Channel Indicator
2. Numeric Keyboard Buttons and Assistant Buttons
3. System Indicator
4. System Control Buttons
5. Power On/Off Button
6. PTZ Control/Menu Control Buttons
7. Internal DVR Writer (invalid for V3061A)
8. Infrared receiver

Rear Panel View



(E.g.16-channel)

1. Video Input Ports
2. Video Looping Output Ports
3. Audio Line In Port
4. Video Output
5. Audio Output
6. Audio Input
7. VGA Video Output Port
8. Ethernet Port
9. RS-232 Port
10. USB Port
11. RS422 Resistor Switch
12. Keyboard Port
13. RS-422 Port
14. Alarm Output
15. Alarm Input
16. Grounding Terminal
17. Power Supply and Cooling Fan

Ordering information

V3061W Digital Video Recorders, SATA, Video Looping & Audio Inputs, full 4CIF, w/DVD writer, Includes Remote Client Software

8 - Channel		16 - Channel	
V3061W-08-1000	1 TB	V3061W-16-1000	1 TB
V3061W-08-2000	2 TB	V3061W-16-2000	2 TB
V3061W-08-3000	3 TB	V3061W-16-3000	3 TB
V3061W-08-4000	4 TB	V3061W-16-4000	4 TB
V3061W-08-5000	5 TB	V3061W-16-5000	5 TB
V3061W-08-6000	6 TB	V3061W-16-6000	6 TB
V3061W-08-7000	7 TB	V3061W-16-7000	7 TB
V3061W-08-8000	8 TB	V3061W-16-8000	8 TB

V3061A Digital Video Recorders, SATA, Video Looping & Audio Inputs, full 4CIF, No DVD writer, Includes Remote Client Software

8 - Channel		16 - Channel	
V3061A-08-1000	1 TB	V3061A-16-1000	1 TB
V3061A-08-2000	2 TB	V3061A-16-2000	2 TB
V3061A-08-3000	3 TB	V3061A-16-3000	3 TB
V3061A-08-4000	4 TB	V3061A-16-4000	4 TB
V3061A-08-5000	5 TB	V3061A-16-5000	5 TB
V3061A-08-6000	6 TB	V3061A-16-6000	6 TB
V3061A-08-7000	7 TB	V3061A-16-7000	7 TB
V3061A-08-8000	8 TB	V3061A-16-8000	8 TB
V3061A-08-9000	9 TB	V3061A-16-9000	9 TB
V3061A-08-10000	10 TB	V3061A-16-10000	10 TB
V3061A-08-11000	11 TB	V3061A-16-11000	11 TB
V3061A-08-12000	12 TB	V3061A-16-12000	12 TB
V3061A-08-13000	13 TB	V3061A-16-13000	13 TB
V3061A-08-14000	14 TB	V3061A-16-14000	14 TB
V3061A-08-15000	15 TB	V3061A-16-15000	15 TB
V3061A-08-16000	16 TB	V3061A-16-16000	16 TB

V3061W Digital Video Recorders, SATA, Video Looping & Audio Inputs, full 4CIF, w/DVD writer, No hard disks

Note: Accepts up to 4 SATA 3.5 inch Drives

V3061W-08	8 Ch. (8V + 8A, Video Looping Outputs)
V3061W-16	16 Ch. (16V + 16A, Video Looping Outputs)

V3061A Digital Video Recorders, SATA, Video Looping & Audio Inputs, full 4CIF, No DVD writer, No hard disks

Note: Accepts up to 8 SATA 3.5 inch Drives

V3061A-08	8 Ch. (8V + 8A, Video Looping Outputs)
V3061A-16	16 Ch. (16V + 16A, Video Looping Outputs)

Hard Disks Ordering Information

V3091-1000S	SATA HD, 1TB
V3091-2000S	SATA HD, 2TB

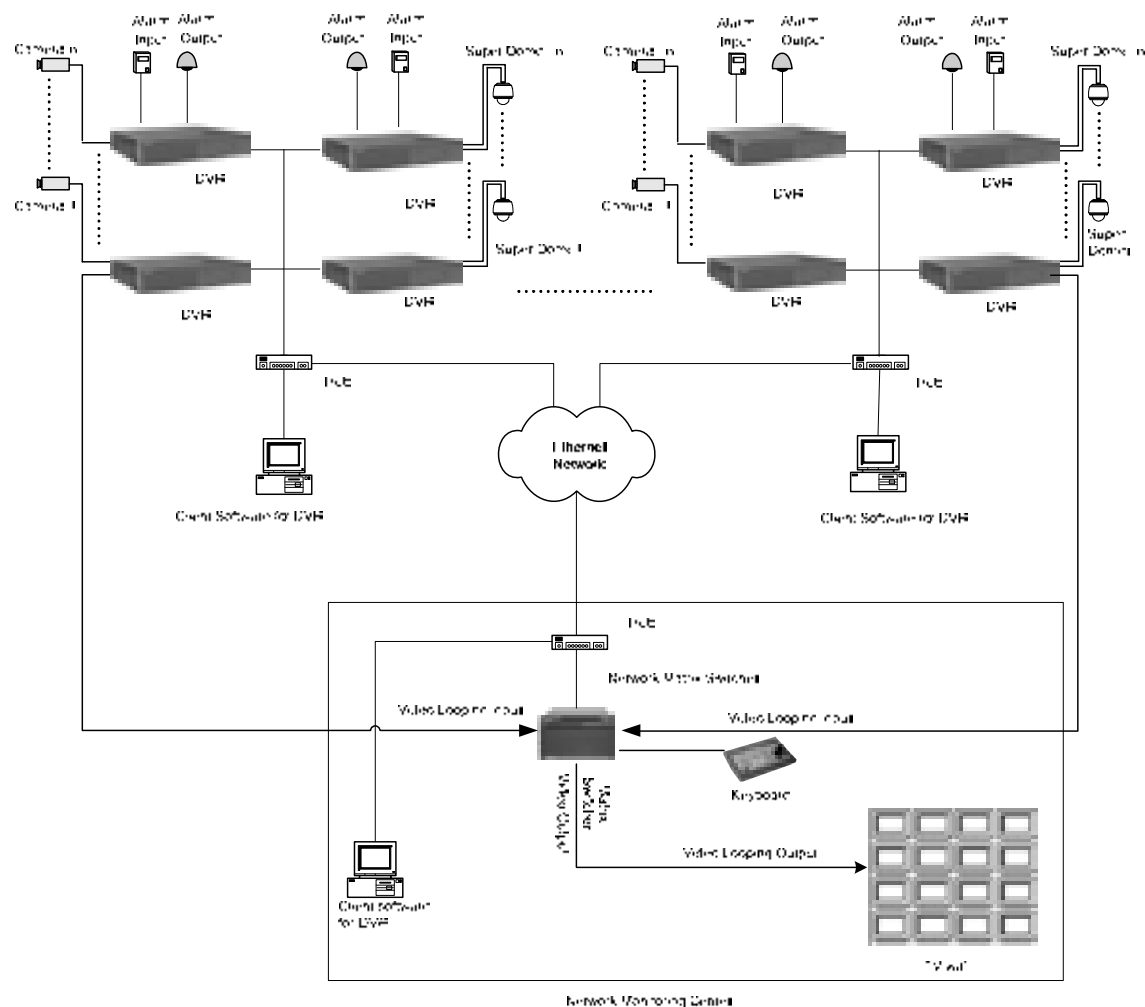
Internal DVD Drives Ordering Information

V3094S-P	DVD Writer, Internal SATA Interface
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Recommended Accessories

V2111	Keyboard, Dome & DVR Controller, Joystick, RS485 port, 120 VAC
V2111X	Keyboard, Dome & DVR Controller, Joystick, RS485 port, 230 VAC

System Application



V3062 Series

Embedded Network Digital Video Recorder

Infinova[®]
The Integrator's Manufacturer



- H.264 and G.711A compression standards with stable encoding performance
- 4-ch full 4CIF encoding, with dual-stream for each video channel
- 4-ch synchronal playback
- Video encoding parameters are adjustable for each channel independently, including resolution, frame rate, bit rate, image quality etc.
- Supports compound stream and video stream encoding, and audio and video streams are synchronal in compound stream encoding
- 1-ch HD VGA output, CVBS main/auxiliary output, and VGA video resolution includes: 800×600 @ 60Hz, 1024×768 @ 60Hz, 1280×1024 @ 60Hz
- Supports zoom of the playback image, mouse clicking pan and area zoom
- 1/4 screen preview, sequence adjustable of preview channels
- Multiple recording types: manual, scheduled, alarm triggered
- Various alarm inputs such as video loss, motion detection, video block, illegal access, network break, hard disk full, IP conflict etc.
- Hard disk sleep
- USB2.0 port for external hard disk and mouse devices etc.
- Watermark technology

V3062 Series DVR integrates advanced video compression and storage technologies, with 4 channels analog video inputs, 4 channels full 4CIF H.264 video encoding and G.711A audio encoding. It supports synchronal audio inputs, USB2.0 high-speed backup, and mouse operations.

The functional DVR can be widely used in security surveillance for small shops, bank ATMs, public security, telecommunication, traffic, and education etc.

Technical specifications

Video

Video Compression	H.264
Video Input	4-ch BNC (1.0Vp-p, 75Ω)
Video Output	1-ch VGA (Resolutions: 800 × 600 @ 60Hz, 1024 × 768 @ 60Hz, 1280 × 1024 @ 60Hz, 1440 × 900 @ 60Hz); 2-ch BNC (1.0Vp-p, 75Ω), 1 main output and 1 auxiliary output
Format Supported	PAL, NTSC
Recording Resolution	PAL: 4CIF(704 × 576), 2CIF(704 × 288), CIF(352 × 288), QCIF(176 × 144); NTSC: 4CIF(704 × 480), 2CIF(704 × 240), CIF(352 × 240), QCIF(176 × 120)
Frame Rate	PAL: 1~25fps, NTSC: 1~30fps
Output Bit Rate	256kbps ~ 2560kbps, adjustable

Audio

Audio Compression	G.711A
Audio Input	4-ch RCA (1.0Vp-p)
Audio Output	1-ch RCA, linear output
Intercom Input	1-ch RCA, linear input

Port

Serial Port	1 RS-485 (4-PIN terminal, T+/T-/R+/R-)
Network Port	1*10M/100M/1000M self-adaptive Ethernet port, RJ-45
Alarm Port	4 inputs, 2 outputs
USB Port	2, on rear side

Storage

Hard Disk	2 SATA ports (built-in), 2T (maximum)
Backup	Record backup through USB port

Recording

Recording Mode	3 modes: manual, scheduled, alarm (including motion detection)
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Network

Protocol	TCP/IP, RTP, UDP, ICMP, DHCP, DNS, NTP, SNMP etc.
Others	Narrow band connection, alarm signal transmission via network

Operational

Operating System	Embedded Linux system
Users	Two-level user access management
Operation	Front panel, remote controller, mouse

Electrical

Power Supply	12VDC
Power Consumption	≤10W (no hard disk)
Power Off Protection	Power on self-recovery

Mechanical

Product Weight (No hard disk)	4.74lbs (2.15kg)
Product Dimension (H×W×D)	1.73" × 12.60" × 10.70" (44mm × 320mm × 272mm)
Packing Dimension (L×W×H)	21.65" × 21.26" × 7.44" (550mm × 540mm × 189mm)

Environmental

Operating Temperature	32°F ~ 122°F (0°C ~ 50°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	5% ~ 90% RH (non-condensing)

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3; FCC: Part 15 Subpart B; ISO 9001:2008
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Ordering information

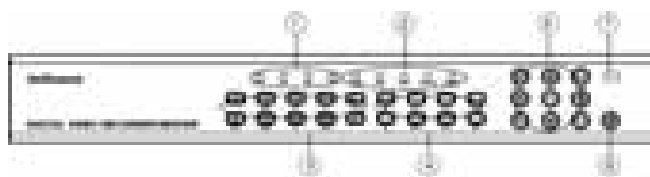
V3062 Digital Video Recorders, SATA, 4 Ch. analog video IN & 4 Ch. audio IN, full 4CIF			
4 - Channel			
V3062-4-1000	1 TB	V3062-4-3000	3 TB
V3062-4-2000	2 TB	V3062-4-4000	4 TB

V3062 Digital Video Recorders, SATA, 4 Ch. analog video IN & 4 Ch. audio IN, full 4CIF, No Hard Disks	
Note: Accepts up to 2 SATA 3.5" Drives	
V3062-4	4 Ch. (4V + 4A)

Hard Disks Ordering Information	
V3091-1000S	SATA HD, 1TB
V3091-2000S	SATA HD, 2TB

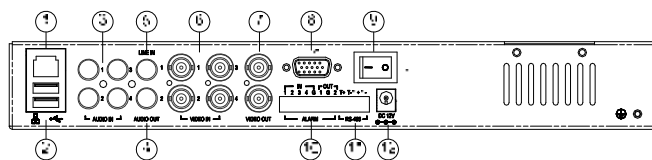
Panel View

Front Panel View



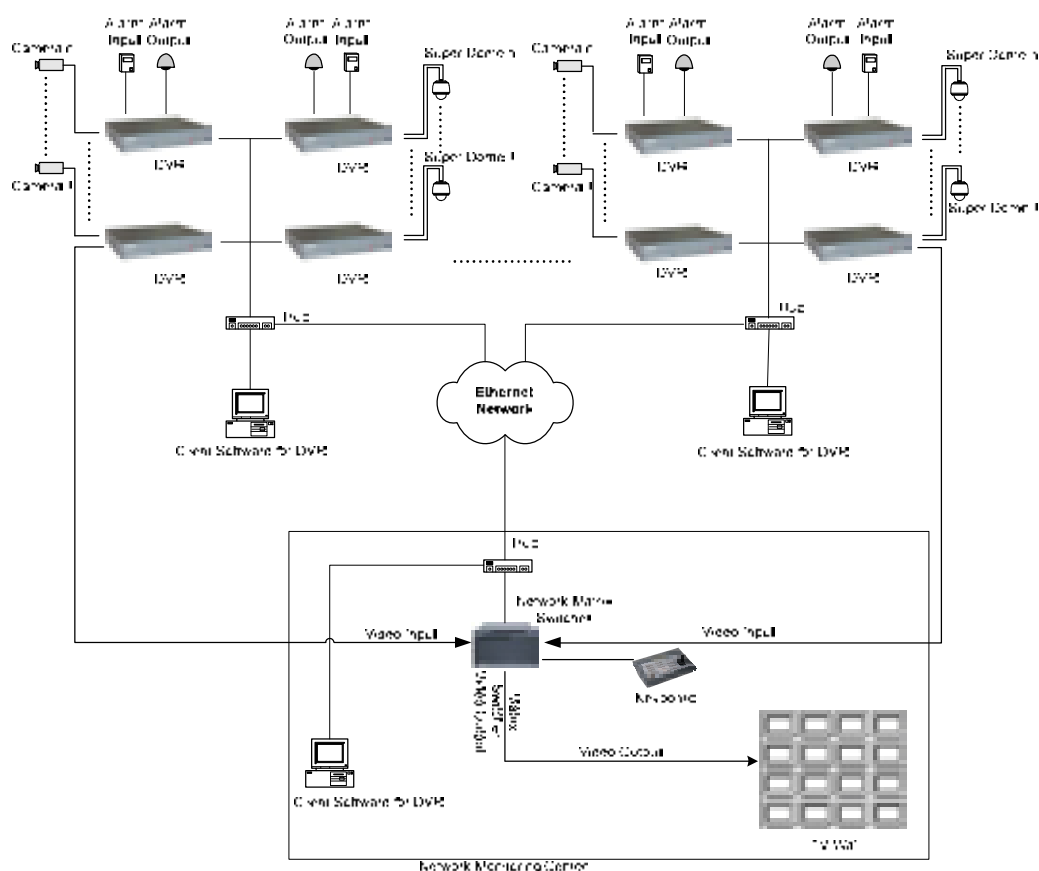
1. Channel Indicator
2. System Indicator
3. Numeric Keyboard Buttons and Assistant Buttons
4. System Control Buttons
5. PTZ Control/Menu Control Buttons
6. Power On/Off Button
7. Infrared Receiver

Rear Panel View



- | | |
|---------------------------------|---------------------------------|
| 1. 10M/100M/1000M Ethernet Port | 7. Video Output |
| 2. USB Port (2) | 8. VGA Video Output |
| 3. Audio Input | 9. Power On/Off Button |
| 4. Audio Output | 10. Alarm (4 inputs /2 outputs) |
| 5. Audio Line In | 11. RS-485 port (T+/T-/R+/R-) |
| 6. Video Input | 12. Power Supply (12VDC) |

System Application



Fiber Optic Communications Product Family

N3510, N3511, N3710 & N3711 Series

Digital Video Transmission System

Infinova[®]
The Integrator's Manufacturer



V>

- **8 bits digitally encoded video transmission**
- **NTSC, PAL, and SECAM auto compatible**
- **Surface mount technology**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3510, N3511, N3710 & N3711 series provides the ability to transmit 1 digitally encoded video channel over one optic fiber.

Modular in design, the N3510, N3511, N3710 & N3711 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-1S and can be placed on a desktop or mounted to a wall. There are mini module transmitters N3510TA-M, N3710TA-M available for space efficiency.

Technical specifications

Video Performance

Video Channel	1
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	8 bits

Optical Performance

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310nm
Connector	ST

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310nm
Connector	FC

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W × H × D)	0.79" x 5.08" x 6.73" (20mm x 129mm x 171mm)
Module Dimensions (W × H × D)	0.94" x 6.22" x 7.87" (24mm x 158mm x 200mm)
Mini Module Dimensions (W × H × D)	4.61" x 2.36" x 1.14" (117mm x 60mm x 29mm)
Power Consumption	3.0W
Card Weight	0.84lbs. (0.38kg)
Module Weight	1.57lbs. (0.71kg)
Mini Module Weight	0.44lbs. (0.2kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	N3511/N3711: FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT08KC-877E; ² BCT08KC-876E

Ordering information

N3510TA-M	FO MM TX, 1V In, Mini Module, 12VDC/24VAC
N3511TA-M	FO MM TX, 1V In, Module, 12VDC/24VAC
N3511TA-R	FO MM TX, 1V In, Card, 1-Slot
N3511RA-M	FO MM RX, 1V Out, Module, 12VDC/24VAC
N3511RA-R	FO MM RX, 1V Out, Card, 1-Slot
N3710TA-M	FO SM TX, 1V In, Mini Module, 12VDC/24VAC
N3711TA-M	FO SM TX, 1V In, Module, 12VDC/24VAC
N3711TA-R	FO SM TX, 1V In, Card, 1-Slot
N3711RA-M	FO SM RX, 1V Out, Module, 12VDC/24VAC
N3711RA-R	FO SM RX, 1V Out, Card, 1-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	12	1310	4.4
Single-mode	20	1310	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 500MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W/250 W power supply
- 15 slots per 19" x 3U subrack; 100 W/250 W dual power supply

System diagram



N3531 & N3731 Series

Infinova[®]
The Integrator's Manufacturer

Single Channel Digital Video with Multi-protocol DIP Selectable Data



V> + D<> + B<>

- **10 bits digitally encoded video transmission**
- **NTSC, PAL, and SECAM auto compatible**
- **Surface mount technology**
- **On-panel DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester / Biphase**
- **On-panel DIP activation of 120 Ohm termination resistor**
- **LED indicators for operation status monitoring**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3531 and N3731 series provides the ability to transmit one digitally encoded video channel with bi-directional RS-232 / RS-422 and DIP selectable data (RS-422 / RS-485 / Manchester / Biphase) over one or two fibers.

Modular in design, the N3531 and N3731 series can be rack-mounted or used as stand-alone module. Rack mounting requires the N3910 series subrack chassis. Stand-alone module used the N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	1
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green
Data Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.73" (20mm x 129mm x 171mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.87" (24mm x 158mm x 200mm)
Power Consumption	2.5W
Card Weight	0.88lbs. (0.40kg)
Module Weight	1.61lbs. (0.73kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT08KC-877E; ² BCT08KC-876E

Ordering information

N3531TA-1D1B-M	FO MM TRX, 1V In, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3531RA-1D1B-M	FO MM TRX, 1V Out, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3731TA-1D1B-M	FO SM TRX, 1V In, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3731RA-1D1B-M	FO SM TRX, 1V Out, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	12	1310/1310	4.4
Single-mode	20	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

1. For Card unit, replace "-M" with "-R" in the model number.
2. Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
3. Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
4. Range estimates for multimode are based on 500MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

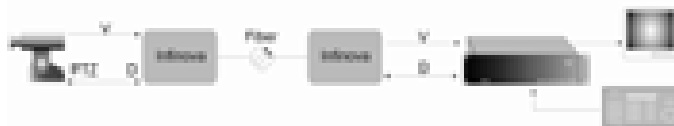
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W/250 W power supply
- 15 slots per 19" x 3U subrack; 100 W/250 W dual power supply

System diagram



N3532 & N3732 Series

Digital Video with Audio, Data and Contact Closure

Infinova[®]
The Integrator's Manufacturer



V> + A<> + D<> + B<> + E<>

- 10 bits digitally encoded video transmission
- NTSC, PAL, and SECAM auto compatible
- Surface mount technology
- Multiple audio format on-board jumper configurable
- Factory default setting RS-232 optional
- On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase
- On-board jumper activation of 120 Ohm termination resistor
- Selectable 600 Ohm (balanced/unbalanced), 10k Ohm (unbalanced) and 47k Ohm (unbalanced) audio
- LED indicators for monitoring of system operating status
- Surge protection against transient surge and over voltage
- Highest optical dynamic range
- Immune to EMI and RFI
- Dense structure for easy installation
- Hot swappable rack mount cards
- Automatic re-settable fuses, short circuit protection
- 12VDC or 24VAC power supply
- Industry standard connectors
- No user adjustments required

N3532 and N3732 series provides the ability to transmit one digitally encoded video channel with audio, data and contact closure combination over one optic fiber.

Modular in design, the N3532 and N3732 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	1
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Audio Performance

Audio Format	600 Ohm (balanced/unbalanced); 10k Ohm /47k Ohm (unbalanced)
Audio Level	-6~+6dBm
Frequency Response	10Hz ~ 20kHz
Signal-to-Noise Ratio	75dB (weighted)

Optical Performance

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

Contact Closure

Response Time	50ms (Active low)
Contact Current	1A @ 30 VDC; 0.5A @ 125 VAC

LED Indicators

Power On	Red
Optical Link Loss	Red
Video/Audio/Data Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.73" (20mm x 129mm x 171mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.87" (24mm x 158mm x 200mm)
Power Consumption	3.9W
Card Weight	0.88lbs. (0.40kg)
Module Weight	1.63lbs. (0.74kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, ISO 9001:2008
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Certificate No.: ¹ BCT08KC-877E; ² BCT08KC-876E

Ordering information

N3532TA-ADBE-M	FO MM TRX, 1V In, 1D IO +1 RS-232 IO, 1A IO, 1CC IO, Module, 12VDC/24VAC
N3532TA-ADBE-R	FO MM TRX, 1V In, 1D IO +1 RS-232 IO, 1A IO, 1CC IO, Card, 1-Slot
N3532RA-ADBE-M	FO MM TRX, 1V Out, 1D IO +1 RS-232 IO, 1A IO, 1CC IO, Module, 12VDC/24VAC
N3532RA-ADBE-R	FO MM TRX, 1V Out, 1D IO +1 RS-232 IO, 1A IO, 1CC IO, Card, 1-Slot
N3732TA-ADBE-M	FO SM TRX, 1V In, 1D IO +1 RS-232 IO, 1A IO, 1CC IO, Module, 12VDC/24VAC
N3732TA-ADBE-R	FO SM TRX, 1V In, 1D IO +1 RS-232 IO, 1A IO, 1CC IO, Card, 1-Slot
N3732RA-ADBE-M	FO SM TRX, 1V Out, 1D IO +1 RS-232 IO, 1A IO, 1CC IO, Module, 12VDC/24VAC
N3732RA-ADBE-R	FO SM TRX, 1V Out, 1D IO +1 RS-232 IO, 1A IO, 1CC IO, Card, 1-Slot
N3732TA-ADB2C-M	FO SM TRX, 1V In, 1D IO+1 RS-232 IO, 1A IO, 2CC IO, Module, 12VDC/24VAC
N3732TA-ADB2C-R	FO SM TRX, 1V In, 1D IO+1 RS-232 IO, 1A IO, 2CC IO, Card, 1-Slot
N3732RA-ADB2C-M	FO SM TRX, 1V Out, 1D IO+1 RS-232 IO, 1A IO, 2CC IO, Module, 12VDC/24VAC
N3732RA-ADB2C-R	FO SM TRX, 1V Out, 1D IO+1 RS-232 IO, 1A IO, 2CC IO, Card, 1-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	12	1310/1310	4.4
Single-mode	20	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 500MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

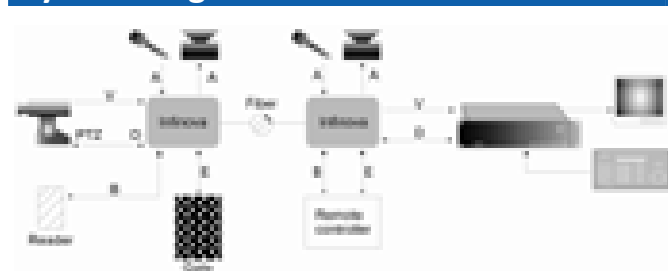
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3542 & N3742 Series

Dual Channel Digital Video Transmission System

Infinova[®]
The Integrator's Manufacturer



2V>

- **10 bits digitally encoded video transmission**
- **NTSC, PAL, and SECAM auto compatible**
- **Surface mount technology**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3542 and N3742 series provides the ability to transmit 2 digitally encoded video channels over one optic fiber.

Modular in design, the N3542 and N3742 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	2
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310nm
Connector	FC

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.73" (20mm x 129mm x 171mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.87" (24mm x 158mm x 200mm)
Power Consumption	2.5W
Card Weight	0.88lbs. (0.40kg)
Module Weight	1.63lbs. (0.74kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-717E; ² BCT09HC-716E

Ordering information

N3542TA-M	FO MM TX, 2V In, Module, 12VDC/24VAC
N3542TA-R	FO MM TX, 2V In, Card, 1-Slot
N3542RA-M	FO MM RX, 2V Out, Module, 12VDC/24VAC
N3542RA-R	FO MM RX, 2V Out, Card, 1-Slot
N3742TA-M	FO SM TX, 2V In, Module, 12VDC/24VAC
N3742TA-R	FO SM TX, 2V In, Card, 1-Slot
N3742RA-M	FO SM RX, 2V Out, Module, 12VDC/24VAC
N3742RA-R	FO SM RX, 2V Out, Card, 1-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310	2.2
Single-mode	17	1310	25

*Higher output lasers available for range over 25km

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

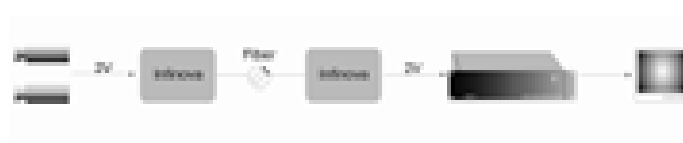
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3544 & N3744 Series

Four Channel Digital Video Transmission System

Infinova[®]
The Integrator's Manufacturer



4V>

- **10 bits digitally encoded video transmission**
- **NTSC, PAL, and SECAM auto compatible**
- **Surface mount technology**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3544 and N3744 series provides the ability to transmit 4 digitally encoded video channels over one optic fiber.

Modular in design, the N3544 and N3744 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	4
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310nm
Connector	FC

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.73" (20mm x 129mm x 171mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.87" (24mm x 158mm x 200mm)
Power Consumption	2.9W
Card Weight	0.90lbs. (0.41kg)
Module Weight	1.65lbs. (0.75kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-717E; ² BCT09HC-716E

Ordering information

N3544TA-M	FO MM TX, 4V In, Module, 12VDC/24VAC
N3544TA-R	FO MM TX, 4V In, Card, 1-Slot
N3544RA-M	FO MM RX, 4V Out, Module, 12VDC/24VAC
N3544RA-R	FO MM RX, 4V Out, Card, 1-Slot
N3744TA-M	FO SM TX, 4V In, Module, 12VDC/24VAC
N3744TA-R	FO SM TX, 4V In, Card, 1-Slot
N3744RA-M	FO SM RX, 4V Out, Module, 12VDC/24VAC
N3744RA-R	FO SM RX, 4V Out, Card, 1-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310	2.2
Single-mode	17	1310	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3548 & N3748 Series

Eight Channel Digital Video Transmission System

Infinova[®]
The Integrator's Manufacturer



8V>

- **10 bits digitally encoded video transmission**
- **NTSC, PAL, and SECAM auto compatible**
- **Surface mount technology**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3548 and N3748 series provides the ability to transmit 8 digitally encoded video channels over one optic fiber.

Modular in design, the N3548 and N3748 series can be rack-mounted or used as a stand-alone module. Rack mounting requires N3910 series subrack. Stand-alone module is accomplished with N3910-2S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	8
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310nm
Connector	FC

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	1.57" x 5.08" x 6.73" (40mm x 129mm x 171mm)
Module Dimensions (W x H x D)	1.73" x 6.22" x 7.87" (44mm x 158mm x 200mm)
Power Consumption	3.9W
Card Weight	1.30lbs. (0.59kg)
Module Weight	2.36lbs. (1.07kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-715E; ² BCT09HC-714E

Ordering information

N3548TA-M	FO MM TX, 8V In, Module, 12VDC/24VAC
N3548TA-R	FO MM TX, 8V In, Card, 2-Slot
N3548RA-M	FO MM RX, 8V Out, Module, 12VDC/24VAC
N3548RA-R	FO MM RX, 8V Out, Card, 2-Slot
N3748TA-M	FO SM TX, 8V In, Module, 12VDC/24VAC
N3748TA-R	FO SM TX, 8V In, Card, 2-Slot
N3748RA-M	FO SM RX, 8V Out, Module, 12VDC/24VAC
N3748RA-R	FO SM RX, 8V Out, Card, 2-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310	2.2
Single-mode	17	1310	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 2 slot modules and 2 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

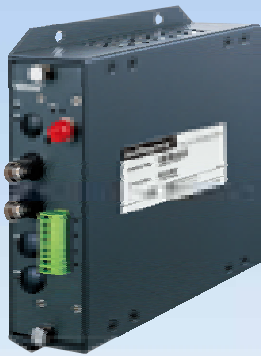
System diagram



N3551 & N3751 Series

Dual Channel Digital Video with Multi-protocol DIP Selectable Data

Infinova[®]
The Integrator's Manufacturer



2V> + D<> + B<>

- **10 bits digitally encoded video transmission**
- **NTSC, PAL, and SECAM auto compatible**
- **Surface mount technology**
- **DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3551 and N3751 series provides the ability to transmit 2 digitally encoded video channels with bi-directional RS-232 and DIP selectable data (RS-422/RS-485/Manchester/Biphase) over one optic fiber.

Modular in design, the N3551 and N3751 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-2S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	2
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green
Data Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	1.57" x 5.08" x 6.73" (40mm x 129mm x 171mm)
Module Dimensions (W x H x D)	1.73" x 6.22" x 7.87" (44mm x 158mm x 200mm)
Power Consumption	3.6W
Card Weight	1.21lbs. (0.55kg)
Module Weight	2.27lbs. (1.03kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-821E; ² BCT09HC-820E

Ordering information

N3551TA-1D1B-M	FO MM TRX, 2V In, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3551TA-1D1B-R	FO MM TRX, 2V In, 1D IO +1 RS-232 IO, Card, 2-Slot
N3551RA-1D1B-M	FO MM TRX, 2V Out, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3551RA-1D1B-R	FO MM TRX, 2V Out, 1D IO +1 RS-232 IO, Card, 2-Slot
N3751TA-1D1B-M	FO SM TRX, 2V In, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3751TA-1D1B-R	FO SM TRX, 2V In, 1D IO +1 RS-232 IO, Card, 2-Slot
N3751RA-1D1B-M	FO SM TRX, 2V Out, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3751RA-1D1B-R	FO SM TRX, 2V Out, 1D IO +1 RS-232 IO, Card, 2-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

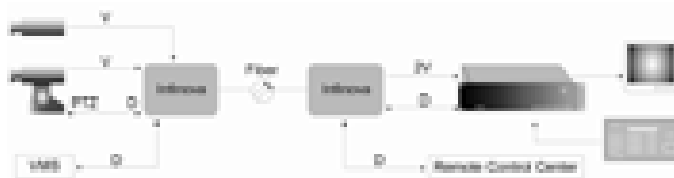
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 2 slot modules and 2 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3552 & N3752 Series

Dual Channel Digital Video with 2-ch Audio and 2-ch Data

Infinova[®]
The Integrator's Manufacturer



2V> + 2A<> + 2D<>

- 10 bits digitally encoded video transmission
- NTSC, PAL, and SECAM auto compatible
- Surface mount technology
- Multiple audio format on-board jumper configurable
- Factory default setting RS-232 optional
- On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase
- On-board jumper activation of 120 Ohm termination resistor
- On-board jumper-selectable 600 Ohm (balanced/unbalanced), 10k Ohm (unbalanced) and 47k Ohm (unbalanced) audio
- LED indicators for monitoring of system operating status
- Surge protection
- Highest optical dynamic range
- Immune to EMI and RFI
- Dense structure for easy installation
- Hot swappable rack mount cards
- Automatic re-settable fuses, short circuit protection
- 12VDC or 24VAC power supply
- Industry standard connectors
- No user adjustments required

N3552 and N3752 series provides the ability to transmit 2 digitally encoded video channels with 2-ch audio and 2-ch data over one optic fiber. Data format supports factory default setting RS-232, DIP selectable RS-422, RS-485, Manchester or Biphase.

Modular in design, the N3552 and N3752 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-2S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	2
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Audio Performance

Format	600 Ohm (balanced/unbalanced) (Jumper Selectable); 10k Ohm /47k Ohm (unbalanced)
Audio Level	-6 ~ +6dBm
Frequency Response	10 Hz ~ 20k Hz
Signal-to-Noise Ratio	75 dB (weighted)

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video/Audio/Data Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	1.57" x 5.08" x 6.73" (40mm x 129mm x 171mm)
Module Dimensions (W x H x D)	1.73" x 6.22" x 7.87" (44mm x 158mm x 200mm)
Power Consumption	4.9W
Card Weight	1.26lbs. (0.57kg)
Module Weight	2.31lbs. (1.05kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-821E; ² BCT09HC-820E

Ordering information

N3552TA-2A2D-M	FO MM TRX, 2V In, 2D IO, 2A IO, Module, 12VDC/24VAC
N3552TA-2A2D-R	FO MM TRX, 2V In, 2D IO, 2A IO, Card, 2-Slot
N3552RA-2A2D-M	FO MM TRX, 2V Out, 2D IO, 2A IO, Module, 12VDC/24VAC
N3552RA-2A2D-R	FO MM TRX, 2V Out, 2D IO, 2A IO, Card, 2-Slot
N3752TA-2A2D-M	FO SM TRX, 2V In, 2D IO, 2A IO, Module, 12VDC/24VAC
N3752TA-2A2D-R	FO SM TRX, 2V In, 2D IO, 2A IO, Card, 2-Slot
N3752RA-2A2D-M	FO SM TRX, 2V Out, 2D IO, 2A IO, Module, 12VDC/24VAC
N3752RA-2A2D-R	FO SM TRX, 2V Out, 2D IO, 2A IO, Card, 2-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

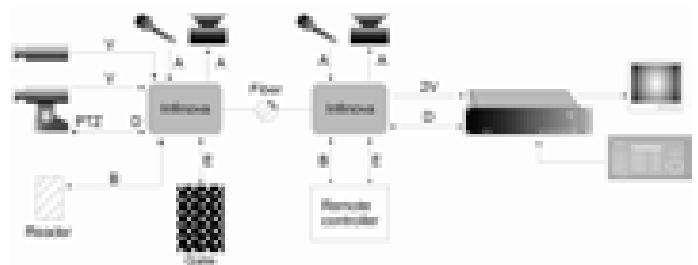
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 2 slot modules and 2 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3553 & N3753 Series

Infinova[®]
The Integrator's Manufacturer

Dual Channel Digital Video with Four Multi-protocol DIP Selectable Data



2V> + 4D<>

- 10 bits digitally encoded video transmission
- NTSC, PAL, and SECAM auto compatible
- Surface mount technology
- Factory default setting RS-232 data (4B, 2D2B sub-series)
- On-panel DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase (2D2B sub-series)
- On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase (4D sub-series)
- On-panel DIP activation of 120 Ohm termination resistor (2D2B sub-series)
- On-board Jumper activation of 120 Ohm termination resistor (4D sub-series)
- LED indicators for monitoring of system operating status
- Surge protection
- Highest optical dynamic range
- Immune to EMI and RFI
- Dense structure for easy installation
- Hot swappable rack mount cards
- Automatic re-settable fuses, short circuit protection
- 12VDC or 24VAC power supply
- Industry standard connectors
- No user adjustments required

N3553 and N3753 series provides the ability to transmit 2 digitally encoded video channels with 4 multi-protocol data over one optic fiber. Data format supports RS-232 (factory default setting) or DIP selectable RS-422 / RS-485 / Manchester / Biphase data.

Modular in design, the N3553 and N3753 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-2S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	2
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green
Data Input/Output Presence	Green

General Parameters

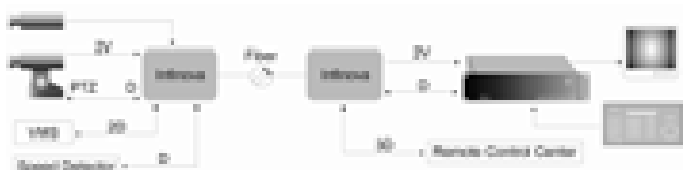
Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	1.57" x 5.08" x 6.73" (40mm x 129mm x 171mm)
Module Dimensions (W x H x D)	1.73" x 6.22" x 7.87" (44mm x 158mm x 200mm)
Power Consumption	4.3W
Card Weight	1.23lbs. (0.56kg)
Module Weight	2.29lbs. (1.04kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-821E; ² BCT09HC-820E

System diagram



Ordering information

N3553TA-2D2B-M	FO MM TRX, 2V In, 2D IO +2 RS-232, Module, 12VDC/24VAC
N3553RA-2D2B-M	FO MM TRX, 2V Out, 2D IO +2 RS-232, Module, 12VDC/24VAC
N3553TA-4D-M	FO MM TRX, 2V In, 4D IO, Module, 12VDC/24VAC
N3553RA-4D-M	FO MM TRX, 2V Out, 4D IO, Module, 12VDC/24VAC
N3553TA-4B-M	FO MM TRX, 2V In, 4 RS-232 IO, Module, 12VDC/24VAC
N3553RA-4B-M	FO MM TRX, 2V Out, 4 RS-232 IO, Module, 12VDC/24VAC
N3753TA-2D2B-M	FO SM TRX, 2V In, 2D IO +2 RS-232, Module, 12VDC/24VAC
N3753RA-2D2B-M	FO SM TRX, 2V Out, 2D IO +2 RS-232, Module, 12VDC/24VAC
N3753TA-4D-M	FO SM TRX, 2V In, 4D IO, Module, 12VDC/24VAC
N3753RA-4D-M	FO SM TRX, 2V Out, 4D IO, Module, 12VDC/24VAC
N3753TA-4B-M	FO SM TRX, 2V In, 4 RS-232 IO, Module, 12VDC/24VAC
N3753RA-4B-M	FO SM TRX, 2V Out, 4 RS-232 IO, Module, 12VDC/24VAC

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

1. For Card unit, replace "-M" with "-R" in the model number
2. Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
3. Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
4. Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

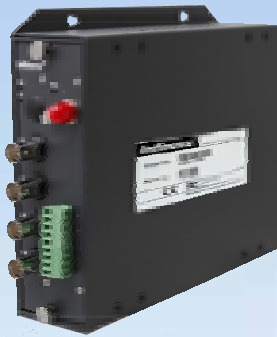
Configurations

- Compact 2 slot modules and 2 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

N3554 & N3754 Series

Four Channel Digital Video with Multi-protocol DIP Selectable Data

Infinova[®]
The Integrator's Manufacturer



4V> + D<> + B<>

- 10 bits digitally encoded video transmission
- NTSC, PAL, and SECAM auto compatible
- Surface mount technology
- LED indicators for monitoring of system operating status
- On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase
- On-board DIP activation of 120 Ohm termination resistor
- Surge protection
- Highest optical dynamic range
- Immune to EMI and RFI
- Dense structure for easy installation
- Hot swappable rack mount cards
- Automatic re-settable fuses, short circuit protection
- 12 VDC or 24 VAC power supply
- Industry standard connectors
- No user adjustments required

N3554 and N3754 series provides the ability to transmit 4 digitally encoded video channels with bi-directional RS-232 and DIP selectable data (RS-422/RS-485/Manchester/Biphase) over one optic fiber.

Modular in design, the N3554 and N3754 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module uses the N3910-2S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	4
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green
Data Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	1.57" x 5.08" x 6.73" (40mm x 129mm x 171mm)
Module Dimensions (W x H x D)	1.73" x 6.22" x 7.87" (44mm x 158mm x 200mm)
Power Consumption	5.0W
Card Weight	1.25lbs. (0.57kg)
Module Weight	2.31lbs. (1.05kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-821E; ² BCT09HC-820E

Ordering information

N3554TA-1D1B-M	FO MM TRX, 4V In, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3554TA-1D1B-R	FO MM TRX, 4V In, 1D IO +1 RS-232 IO, Card, 2-Slot
N3554RA-1D1B-M	FO MM TRX, 4V Out, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3554RA-1D1B-R	FO MM TRX, 4V Out, 1D IO +1 RS-232 IO, Card, 2-Slot
N3754TA-1D1B-M	FO SM TRX, 4V In, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3754TA-1D1B-R	FO SM TRX, 4V In, 1D IO +1 RS-232 IO, Card, 2-Slot
N3754RA-1D1B-M	FO SM TRX, 4V Out, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3754RA-1D1B-R	FO SM TRX, 4V Out, 1D IO +1 RS-232 IO, Card, 2-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

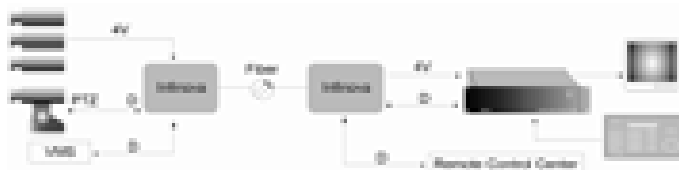
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 2 slot modules and 2 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3555 & N3755 Series

Four Channel Digital Video with 2-ch Audio and 2-ch Data

Infinova[®]
The Integrator's Manufacturer



4V> + 2A<> + 2D<>

- 10 bits digitally encoded video transmission
- NTSC, PAL, and SECAM auto compatible
- Surface mount technology
- Multiple audio format on-board jumper configurable
- Factory default setting RS-232 optional
- On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase
- LED indicators for monitoring of system operating status
- On-board jumper activation of 120 Ohm termination resistor
- Surge protection
- Highest optical dynamic range
- Immune to EMI and RFI
- Dense structure for easy installation
- Hot swappable rack mount cards
- Automatic re-settable fuses, short circuit protection
- 12 VDC or 24 VAC power supply
- Industry standard connectors
- No user adjustments required

N3555 and N3755 series provides the ability to transmit 4 digitally encoded video channels with 2-ch audio and 2-ch data over one optic fiber. Data format supports factory default setting RS-232, DIP selectable RS-422, RS-485, Manchester or Biphase.

Modular in design, the N3555 and N3755 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module uses the N3910-2S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	4
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Audio Performance

Format	600 Ohm (balanced/unbalanced) (Jumper Selectable); 10k Ohm/47k Ohm (unbalanced)
Audio Level	-6 ~ +6dBm
Frequency Response	10 Hz ~ 20k Hz
Signal-to-Noise Ratio	75 dB (weighted)

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green
Audio Input/Output Presence	Green
Data Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	1.57" x 5.08" x 6.73" (40mm x 129mm x 171mm)
Module Dimensions (W x H x D)	1.73" x 6.22" x 7.87" (44mm x 158mm x 200mm)
Power Consumption	5.7W
Card Weight	1.27lbs. (0.58kg)
Module Weight	2.33lbs. (1.06kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-821E; ² BCT09HC-820E

Ordering information

N3555TA-2A2D-M	FO MM TRX, 4V In, 2D IO, 2A IO, Module, 12VDC/24VAC
N3555TA-2A2D-R	FO MM TRX, 4V In, 2D IO, 2A IO, Card, 2-Slot
N3555RA-2A2D-M	FO MM TRX, 4V Out, 2D IO, 2A IO, Module, 12VDC/24VAC
N3555RA-2A2D-R	FO MM TRX, 4V Out, 2D IO, 2A IO, Card, 2-Slot
N3755TA-2A2D-M	FO SM TRX, 4V In, 2D IO, 2A IO, Module, 12VDC/24VAC
N3755TA-2A2D-R	FO SM TRX, 4V In, 2D IO, 2A IO, Card, 2-Slot
N3755RA-2A2D-M	FO SM TRX, 4V Out, 2D IO, 2A IO, Module, 12VDC/24VAC
N3755RA-2A2D-R	FO SM TRX, 4V Out, 2D IO, 2A IO, Card, 2-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

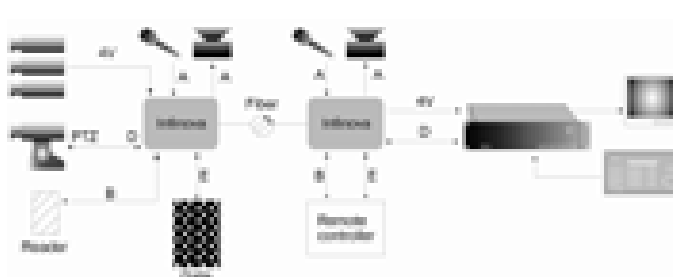
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 2 slot modules and 2 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

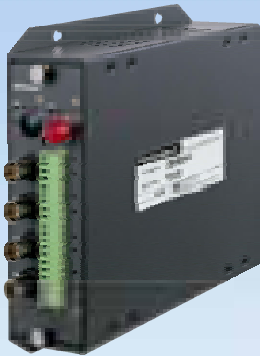
System diagram



N3556 & N3756 Series

Four Channel Digital Video with 4-ch Multi-protocol Data

Infinova[®]
The Integrator's Manufacturer



4V> + 4D<>

- **10 bits digitally encoded video transmission**
- **NTSC, PAL and SECAM auto compatible**
- **Surface mount technology**
- **Factory default setting RS-232 (4B, 2D2B sub-series)**
- **LED indicators for monitoring of system operating status**
- **On-board jumper activation of 120 Ohm termination resistor**
- **On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3556 and N3756 series provides the ability to transmit 4 digitally encoded video channels with 4-ch multi-protocol data over one optic fiber. Data format supports RS-232 (factory default setting) or DIP selectable RS-422/RS-485/Manchester/Biphase data.

Modular in design, the N3556 and N3756 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module uses the N3910-2S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	4
Video Input Impedance	750hm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green
Data Input/Output Presence	Green

General Parameters

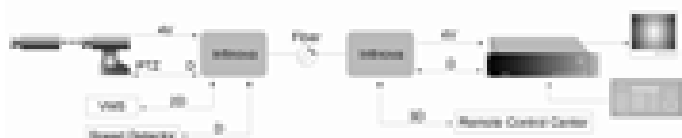
Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	1.57" x 5.08" x 6.73" (40mm x 129mm x 171mm)
Module Dimensions (W x H x D)	1.73" x 6.22" x 7.87" (44mm x 158mm x 200mm)
Power Consumption	6.2W
Card Weight	1.26lbs. (0.57kg)
Module Weight	2.29lbs. (1.04kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-821E; ² BCT09HC-820E

System diagram



Ordering information

N3556TA-2D2B-M	FO MM TRX, 4V In, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3556RA-2D2B-M	FO MM TRX, 4V Out, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3556TA-4D-M	FO MM TRX, 4V In, 4D IO, Module, 12VDC/24VAC
N3556RA-4D-M	FO MM TRX, 4V Out, 4D IO, Module, 12VDC/24VAC
N3556TA-4B-M	FO MM TRX, 4V In, 4 RS-232 IO, Module, 12VDC/24VAC
N3556RA-4B-M	FO MM TRX, 4V Out, 4 RS-232 IO, Module, 12VDC/24VAC
N3756TA-2D2B-M	FO SM TRX, 4V In, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3756RA-2D2B-M	FO SM TRX, 4V Out, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3756TA-4D-M	FO SM TRX, 4V In, 4D IO, Module, 12VDC/24VAC
N3756RA-4D-M	FO SM TRX, 4V Out, 4D IO, Module, 12VDC/24VAC
N3756TA-4B-M	FO SM TRX, 4V In, 4 RS-232 IO, Module, 12VDC/24VAC
N3756RA-4B-M	FO SM TRX, 4V Out, 4 RS-232 IO, Module, 12VDC/24VAC

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

1. For Card unit, replace “-M” with “-R” in the model number
2. Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
3. Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
4. Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 2 slot modules and 2 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

N3557 & N3757 Series

Eight Channel Digital Video with Multi-protocol DIP Selectable Data

Infinova[®]
The Integrator's Manufacturer



8V> + D<> + B<>

- 10 bits digitally encoded video transmission
- NTSC, PAL, and SECAM auto compatible
- Surface mount technology
- LED indicators for monitoring of system operating status
- On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase
- On-board DIP activation of 120 Ohm termination resistor
- Surge protection
- Highest optical dynamic range
- Immune to EMI and RFI
- Dense structure for easy installation
- Hot swappable rack mount cards
- Automatic re-settable fuses, short circuit protection
- 12 VDC or 24 VAC power supply
- Industry standard connectors
- No user adjustments required

N3557 and N3757 series provides the ability to transmit 8 digitally encoded video channels with bi-directional RS-232 and DIP selectable data (RS-422/RS-485/Manchester/Biphase) over one optic fiber.

Modular in design, the N3557 and N3757 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module uses the N3910-3S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	8
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green
Data Input/Output Presence	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	2.40" x 5.08" x 6.73" (61mm x 129mm x 171mm)
Module Dimensions (W x H x D)	2.56" x 6.22" x 7.87" (65mm x 158mm x 200mm)
Power Consumption	5.6W
Card Weight	1.63lbs. (0.74kg)
Module Weight	2.98lbs. (1.35kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-717E; ² BCT09HC-716E

Ordering information

N3557TA-1D1B-M	FO MM TRX, 8V In, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3557TA-1D1B-R	FO MM TRX, 8V In, 1D IO +1 RS-232 IO, Card, 3-Slot
N3557RA-1D1B-M	FO MM TRX, 8V Out, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3557RA-1D1B-R	FO MM TRX, 8V Out, 1D IO +1 RS-232 IO, Card, 3-Slot
N3757TA-1D1B-M	FO SM TRX, 8V In, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3757TA-1D1B-R	FO SM TRX, 8V In, 1D IO +1 RS-232 IO, Card, 3-Slot
N3757RA-1D1B-M	FO SM TRX, 8V Out, 1D IO +1 RS-232 IO, Module, 12VDC/24VAC
N3757RA-1D1B-R	FO SM TRX, 8V Out, 1D IO +1 RS-232 IO, Card, 3-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3922-24A-1:	24 VAC (120 VAC), 50 VA
N3922-24A-2:	24 VAC (230 VAC), 50 VA

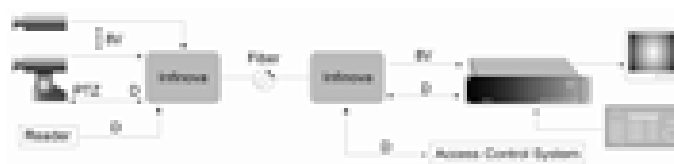
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 3 slot modules and 3 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

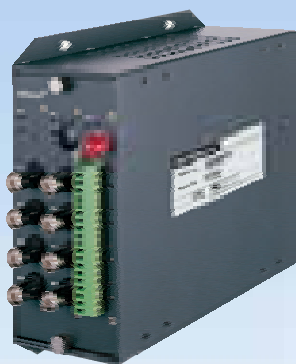
System diagram



N3558 & N3758 Series

Eight Channel Digital Video with 2-ch Audio and 2-ch Data

Infinova[®]
The Integrator's Manufacturer



8V> + 2A<> + 2D<>

- 10 bits digitally encoded video transmission
- NTSC, PAL, and SECAM auto compatible
- Surface mount technology
- Multiple audio format on-board jumper configurable
- Factory default setting RS-232 optional
- On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase
- LED indicators for monitoring of system operating status
- On-board jumper activation of 120 Ohm termination resistor
- Surge protection
- Highest optical dynamic range
- Immune to EMI and RFI
- Dense structure for easy installation
- Hot swappable rack mount cards
- Automatic re-settable fuses, short circuit protection
- 12VDC or 24VAC power supply
- Industry standard connectors
- No user adjustments required

N3558 and N3758 series provides the ability to transmit 8 digitally encoded video channels with 2-ch audio and 2-ch data over one optic fiber. Data format supports factory default setting RS-232, DIP selectable RS-422, RS-485, Manchester or Biphase.

Modular in design, the N3558 and N3758 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module uses the N3910-3S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	8
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Audio Performance

Format	600 Ohm (balanced/unbalanced) (Jumper Selectable); 10k Ohm/47k Ohm (unbalanced)
Audio Level	-6 ~ +6dBm
Frequency Response	10Hz ~ 20k Hz
Signal-to-Noise Ratio	75dB (weighted)

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output	Green
Audio Input/Output	Green
Data Input/Output	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	2.40" x 5.08" x 6.73" (61mm x 129mm x 171mm)
Module Dimensions (W x H x D)	2.56" x 6.22" x 7.87" (65mm x 158mm x 200mm)
Power Consumption	7.4W
Card Weight	1.61lbs. (0.73kg)
Module Weight	2.95lbs. (1.34kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certification	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-819E; ² BCT09HC-818E

Ordering information

N3558TA-2A2D-M	FO MM TRX, 8V In, 2D IO, 2A IO, Module, 12VDC/24VAC
N3558TA-2A2D-R	FO MM TRX, 8V In, 2D IO, 2A IO, Card, 3-Slot
N3558RA-2A2D-M	FO MM TRX, 8V Out, 2D IO, 2A IO, Module, 12VDC/24VAC
N3558RA-2A2D-R	FO MM TRX, 8V Out, 2D IO, 2A IO, Card, 3-Slot
N3758TA-2A2D-M	FO SM TRX, 8V In, 2D IO, 2A IO, Module, 12VDC/24VAC
N3758TA-2A2D-R	FO SM TRX, 8V In, 2D IO, 2A IO, Card, 3-Slot
N3758RA-2A2D-M	FO SM TRX, 8V Out, 2D IO, 2A IO, Module, 12VDC/24VAC
N3758RA-2A2D-R	FO SM TRX, 8V Out, 2D IO, 2A IO, Card, 3-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3922-24A-1:	24 VAC (120 VAC), 50 VA
N3922-24A-2:	24 VAC (230 VAC), 50 VA

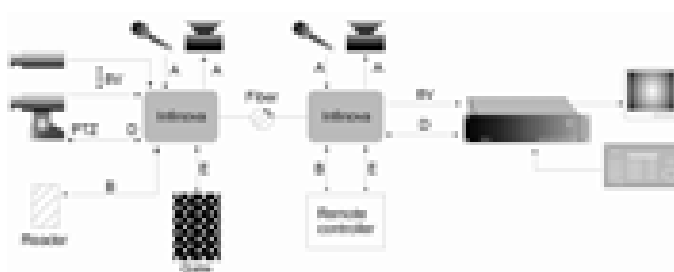
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 3 slot modules and 3 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

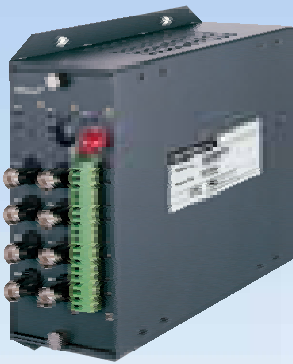
System diagram



N3559 & N3759 Series

Infinova[®]
The Integrator's Manufacturer

Eight Channel Digital Video with 4-ch Multi-protocol DIP Selectable Data



8V> + 4D<>

- **10 bits digitally encoded video transmission**
- **NTSC, PAL, and SECAM auto compatible**
- **Surface mount technology**
- **Factory default setting RS-232**
- **On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase**
- **LED indicators for monitoring of system operating status**
- **On-board jumper activation of 120 Ohm termination resistor**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3559 and N3759 series provides the ability to transmit 8 digitally encoded video channels with 4-ch multi-protocol data over one optic fiber. Data format supports RS-232 (factory default setting) or DIP selectable RS-422 / RS-485 / Manchester / Biphase.

Modular in design, the N3559 and N3759 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module uses the N3910-3S and can be placed on a desktop or mounted to a wall.

Technical specifications

Video Performance

Video Channel	8
Video Input Impedance	75Ohm
Video Voltage	1.0Vp-p
Bandwidth	5Hz~6.5 MHz
Differential Gain	1% (typical)
Differential Phase	1° (typical)
Signal-to-Noise Ratio	67dB (weighted)
PCM Encoding	10 bits

Optical Performance

Multi-mode

Output Power	-12dBm (typical)
Receiver Sensitivity	-19dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-5dBm (typical)
Receiver Sensitivity	-22dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Video Input/Output Presence	Green
Data Input/Output Presence	Green

General Parameters

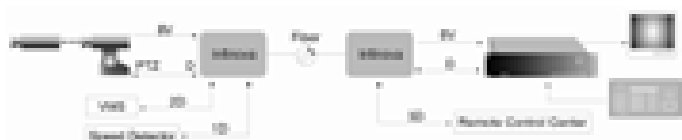
Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	2.40" x 5.08" x 6.73" (61mm x 129mm x 171mm)
Module Dimensions (W x H x D)	2.56" x 6.22" x 7.87" (65mm x 158mm x 200mm)
Power Consumption	6.6W
Card Weight	1.67lbs. (0.76kg)
Module Weight	3.02lbs. (1.37kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-717E; ² BCT09HC-716E

System diagram



Ordering information

N3559TA-2D2B-M	FO MM TRX, 8V In, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3559RA-2D2B-M	FO MM TRX, 8V Out, 2D IO +2RS-232 IO, Module, 12VDC/24VAC
N3559TA-4D-M	FO MM TRX, 8V In, 4D IO, Module, 12VDC/24VAC
N3559RA-4D-M	FO MM TRX, 8V Out, 4D IO, Module, 12VDC/24VAC
N3559TA-4B-M	FO MM TRX, 8V In, 4 RS-232 IO, Module, 12VDC/24VAC
N3559RA-4B-M	FO MM TRX, 8V Out, 4 RS-232 IO, Module, 12VDC/24VAC
N3759TA-2D2B-M	FO SM TRX, 8V In, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3759RA-2D2B-M	FO SM TRX, 8V Out, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3759TA-4D-M	FO SM TRX, 8V In, 4D IO, Module, 12VDC/24VAC
N3759RA-4D-M	FO SM TRX, 8V Out, 4D IO, Module, 12VDC/24VAC
N3759TA-4B-M	FO SM TRX, 8V In, 4 RS-232 IO, Module, 12VDC/24VAC
N3759RA-4B-M	FO SM TRX, 8V Out, 4 RS-232 IO, Module, 12VDC/24VAC

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	7	1310/1310	2.2
Single-mode	17	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

1. For Card unit, replace "-M" with "-R" in the model number
2. Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
3. Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
4. Range estimates for multimode are based on 1000MHz/km fiber

Accessories

Power Supply

N3922-24A-1:	24 VAC (120 VAC), 50 VA
N3922-24A-2:	24 VAC (230 VAC), 50 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 3 slot modules and 3 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

N3571 & N3771 Series

Bi-directional RS-232 and Multi-protocol DIP Selectable Data

Infinova[®]
The Integrator's Manufacturer



D<> + B<>

- **Surface mount technology**
- **On-panel DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase**
- **On-panel DIP activation of 120 Ohm termination resistor**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3571 and N3771 series provides the ability to transmit and receive one RS-232 and one DIP selectable data (RS-422, RS-485, Manchester or Biphase) over one or two fibers.

Modular in design, the N3571 and N3771 series can be rack-mounted or used as stand-alone module. Rack mounting requires the N3910 series subrack chassis. Stand-alone module used the N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Optical Performance

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Data Input/Output	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.57" (20mm x 129mm x 167mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.76" (24mm x 158mm x 197mm)
Power Consumption	1.9W
Card Weight	0.82lbs. (0.37kg)
Module Weight	1.57lbs. (0.71kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	N3571: FCC ¹ , CE/EMC ² : EN 55022, EN 55024, ISO 9001:2008 N3771: FCC ³ , CE/EMC ⁴ : EN 55022, EN 55024, ISO 9001:2008
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Certificate No.: ¹ RSZ07070303; ² RSZ07070303-1, RSZ07070303-2

³ RSZ08041602; ⁴ RSZ08041602-1, RSZ08041602-2

Ordering information

N3571XA-1D1B-M	FO MM TRX, 1D IO +1 RS-232, Module, 12VDC/24VAC
N3571XA-1D1B-R	FO MM TRX, 1D IO +1 RS-232, Card, 1-Slot
N3571XB-1D1B-M	FO MM TRX, 1D IO +1 RS-232, Module, 12VDC/24VAC
N3571XB-1D1B-R	FO MM TRX, 1D IO +1 RS-232, Card, 1-Slot
N3771XA-1D1B-M	FO SM TRX, 1D IO+1 RS-232, Module, 12VDC/24VAC
N3771XA-1D1B-R	FO SM TRX, 1D IO+1 RS-232, Card, 1-Slot
N3771XB-1D1B-M	FO SM TRX, 1D IO+1 RS-232, Module, 12VDC/24VAC
N3771XB-1D1B-R	FO SM TRX, 1D IO+1 RS-232, Card, 1-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	12	1310/1310	4.4
Single-mode	20	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 500MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3572 & N3772 Series

Up to Four Channel DIP Selectable Duplex RS-232/RS-422/RS-485 Data

Infinova[®]
The Integrator's Manufacturer



4D<>

- **Surface mount technology**
- **Factory default setting RS-232 available**
- **On-board jumper switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase**
- **On-board jumpers activation of 120 Ohm termination resistors**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3572 and N3772 series provides the ability to transmit and receive up to 4-ch multi-protocol data over one optic fiber. Data format supports factory default setting RS-232 and DIP selectable RS-422, RS-485, Manchester or Biphase.

Modular in design, the N3572 and N3772 series can be rack-mounted or used as stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Optical Performance

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Data Input/Output	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.57" (20mm x 129mm x 167mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.76" (24mm x 158mm x 197mm)
Power Consumption	3.5W
Card Weight	0.86lbs. (0.39kg)
Module Weight	1.61lbs. (0.73kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, ISO 9001:2008
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Certificate No.: ¹ RSZ08041602; ² RSZ08041602-1, RSZ08041602-2

System diagram



Ordering information

N3572XA-2D2B-M	FO MM TRX, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3572XA-4D-M	FO MM TRX, 4D IO, Module, 12VDC/24VAC
N3572XA-4B-M	FO MM TRX, 4 RS-232 IO, Module, 12VDC/24VAC
N3572XB-2D2B-M	FO MM TRX, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3572XB-4D-M	FO MM TRX, 4 D IO, Module, 12VDC/24VAC
N3572XB-4B-M	FO MM TRX, 4 RS-232 IO, Module, 12VDC/24VAC
N3772XA-2D2B-M	FO SM TRX, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3772XA-4D-M	FO SM TRX, 4D IO, Module, 12VDC/24VAC
N3772XA-4B-M	FO SM TRX, 4 RS-232 IO, Module, 12VDC/24VAC
N3772XB-2D2B-M	FO SM TRX, 2D IO +2 RS-232 IO, Module, 12VDC/24VAC
N3772XB-4D-M	FO SM TRX, 4 D IO, Module, 12VDC/24VAC
N3772XB-4B-M	FO SM TRX, 4 RS-232 IO, Module, 12VDC/24VAC

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	12	1310/1310	4.4
Single-mode	20	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

1. For Card unit, replace “-M” with “-R” in the model number
2. Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
3. Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
4. Range estimates for multimode are based on 500MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

N3574 & N3774 Series

Duplex Audio Transmission System

Infinova[®]
The Integrator's Manufacturer



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- **24-bit PCM audio encoding**
- **Optional audio input resistance of 600Ω balance/unbalance and 10k Ohm/47k Ohm unbalance**
- **Surface Mounting Technology**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12VDC or 24VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3574 and N3774 series provides the ability to transmit and receive one bidirectional audio over one optic fiber.

Modular in design, the N3574 and N3774 series can be rack-mounted or used as stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Audio Performance

Audio Format	600 Ohm (balanced/unbalanced) (Jumper Selectable); 10k Ohm /47k Ohm (unbalanced)
Audio Level	-6 ~ +6dBm
Frequency Response	10 Hz ~ 20k Hz
Signal-to-Noise Ratio	75dB (weighted)

Optical Performance

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550nm
Connector	FC

LED Indicators

Power On	Red
Optical Link Loss	Red
Audio Input/Output	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.57" (20mm x 129mm x 167mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.76" (24mm x 158mm x 197mm)
Power Consumption	3.5W
Card Weight	0.86lbs. (0.39kg)
Module Weight	1.61lbs. (0.73kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, ISO 9001:2008
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Certificate No.: ¹ RSZ08041602; ² RSZ08041602-1, RSZ08041602-2

Ordering information

N3574XA-1A-M	FO MM TRX, 1A IO, Module, 12VDC/24VAC
N3574XA-1A-R	FO MM TRX, 1A IO, Card, 1-slot
N3574XB-1A-M	FO MM TRX, 1A IO, Module, 12VDC/24VAC
N3574XB-1A-R	FO MM TRX, 1A IO, Card, 1-slot
N3774XA-1A-M	FO SM TRX, 1A IO, Module, 12VDC/24VAC
N3774XA-1A-R	FO SM TRX, 1A IO, Card, 1-slot
N3774XB-1A-M	FO SM TRX, 1A IO, Module, 12VDC/24VAC
N3774XB-1A-R	FO SM TRX, 1A IO, Card, 1-slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	12	1310/1310	4.4
Single-mode	20	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 500MHz/km fiber

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot module and 1 slot card unit
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3576 & N3776 Series

Aiphone® Audio Intercom System

Infinova[®]
The Integrator's Manufacturer



Intercom<>

- **Uncompressed, distortion-free, and transparent transmission for master/slave intercom and call/response signals**
- **Compatible with LEF/NEM/LEM audio and data control protocols**
- **On-board DIP switch selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase**
- **On-board jumper activation of 120 Ohm termination resistor**
- **Surface mount technology**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12 VDC or 24 VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3576 and N3776 series provides the ability to transmit and receive four or eight Aiphone® audio intercoms with four multi-protocol data over one optic fiber. Data format supports DIP selectable data (RS-422, RS-485, Manchester or Biphase).

Modular in design, the N3576 and N3776 series can be rack-mounted or used as stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module uses the N3910-2S or N3910-3S and can be placed on a desktop or mounted to a wall.

Technical specifications

Audio Performance

Physical Port	Industrial terminal block
Audio In/Out Level	Compatible with Aiphone® intercom audio frequency
Interface Complier	PCM compiling
Interface	Intercom master/slave transceiver
Type	Aiphone® intercom

Optical Performance

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310/1310nm
Connector	ST

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550nm
Connector	FC

Data Performance

Data Rate	DC to 115.2kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link Loss	Red
Optical Link Presence	Green
Audio Intercom	Green

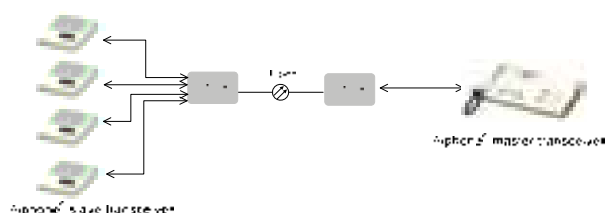
General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Maximum Consumption	8W (8-ch)
Weight (2-slot, module)	2.27lbs. (1.03kg)
Weight (2-slot, card)	1.21lbs. (0.55kg)
Weight (3-slot, module)	2.95lbs. (1.34kg)
Weight (3-slot, card)	1.61lbs. (0.73kg)
Dimension (2-slot, module) (H×W×D)	6.22" × 1.73" × 7.87" (158mm × 44mm × 200mm)
Dimension (2-slot, card) (H×W×D)	5.08" × 1.58" × 6.73" (129mm × 40mm × 171mm)
Dimension (3-slot, module) (H×W×D)	6.22" × 2.56" × 7.87" (158mm × 65mm × 200mm)
Dimension (3-slot, card) (H×W×D)	5.08" × 2.40" × 6.73" (129mm × 61mm × 171mm)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	CE, FCC, ISO 9001:2008
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System diagram



Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Ordering information

N3576XM-4AI-4D-L-M	FO MM TRX for Aiphone® LEF/LEM Intercoms, Master, 4AI, 4D IO, Module, 12VDC/24VAC
N3576XM-4AI-4D-L-R	FO MM TRX for Aiphone® LEF/LEM Intercoms, Master, 4AI, 4D IO, Card, 2-Slot
N3576XS-4AI-4D-L-M	FO MM TRX for Aiphone® LEF/LEM Intercoms, Slave, 4AI, 4D IO, Module, 12VDC/24VAC
N3576XS-4AI-4D-L-R	FO MM TRX for Aiphone® LEF/LEM Intercoms, Slave, 4AI, 4D IO, Card, 2-Slot
N3576XM-8AI-4D-L-M	FO MM TRX for Aiphone® LEF/LEM Intercoms, Master, 8AI, 4D IO, Module, 12VDC/24VAC
N3576XM-8AI-4D-L-R	FO MM TRX for Aiphone® LEF/LEM Intercoms, Master, 8AI, 4D IO, Card, 3-Slot
N3576XS-8AI-4D-L-M	FO MM TRX for Aiphone® LEF/LEM Intercoms, Slave, 8AI, 4D IO, Module, 12VDC/24VAC
N3576XS-8AI-4D-L-R	FO MM TRX for Aiphone® LEF/LEM Intercoms, Slave, 8AI, 4D IO, Card, 3-Slot
N3776XM-4AI-4D-L-M	FO SM TRX for Aiphone® LEF/LEM Intercoms, Master, 4AI, 4D IO, Module, 12VDC/24VAC
N3776XM-4AI-4D-L-R	FO SM TRX for Aiphone® LEF/LEM Intercoms, Master, 4AI, 4D IO, Card, 2-Slot
N3776XS-4AI-4D-L-M	FO SM TRX for Aiphone® LEF/LEM Intercoms, Slave, 4AI, 4D IO, Module, 12VDC/24VAC
N3776XS-4AI-4D-L-R	FO SM TRX for Aiphone® LEF/LEM Intercoms, Slave, 4AI, 4D IO, Card, 2-Slot
N3776XM-8AI-4D-L-M	FO SM TRX for Aiphone® LEF/LEM Intercoms, Master, 8AI, 4D IO, Module, 12VDC/24VAC
N3776XM-8AI-4D-L-R	FO SM TRX for Aiphone® LEF/LEM Intercoms, Master, 8AI, 4D IO, Card, 3-Slot
N3776XS-8AI-4D-L-M	FO SM TRX for Aiphone® LEF/LEM Intercoms, Slave, 8AI, 4D IO, Module, 12VDC/24VAC
N3776XS-8AI-4D-L-R	FO SM TRX for Aiphone® LEF/LEM Intercoms, Slave, 8AI, 4D IO, Card, 3-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	12	1310/1310	4.4
Single-mode	20	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

1. For N35/776, the suffix “-L” represents the system is compatible with LEF/LEM intercom. For NEM intercoms, please replace “-L” with “-N” in the product model.
2. Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth.
3. Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor.
4. Range estimates for multimode are based on 500MHz/km fiber.

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA (for 2 slots)
N3921-12D-2:	12 VDC (230 VAC), 10 VA (for 2 slots)
N3921-24A-1:	24 VAC (120 VAC), 20 VA (for 2 slots)
N3921-24A-2:	24 VAC (230 VAC), 20 VA (for 2 slots)
N3922-24A-1:	24 VAC (120 VAC), 50 VA (for 3 slots)
N3922-24A-2:	24 VAC (230 VAC), 50 VA (for 3 slots)

Configurations

- Compact 2 slot modules and 2 slot card units
- Compact 3 slot modules and 3 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

N3579 & N3779 Series

Eight Contact Closures Transmission

Infinova[®]
The Integrator's Manufacturer



8 C.C.>

- **Surface mount technology**
- **Compatible with contact closure**
- **LED indicators for monitoring of system operating status**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12 VDC or 24 VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3579 and N3779 series provide the ability to transmit 8 contact closures over one optic fiber.

Modular in design, the N3579 and N3779 series can be rack-mounted or used as stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Contact Closure

Number of Channels	8
Response Time	4ms (Active low)
Contact Current	1 A @ 30 VDC; 0.5 A @ 125 VAC

Optical Performance

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310nm
Connector	ST

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310nm
Connector	FC

LED Indicators

Power On	Red
Optical Link	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.57" (20mm x 129mm x 167mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.76" (24mm x 158mm x 197mm)
Power Consumption	2.0W
Card Weight	0.82lbs. (0.37kg)
Module Weight	1.57lbs. (0.71kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	CE, FCC, ISO 9001:2008
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Ordering information

N3579TA-8C-M	FO MM TX 8 Contact Closure In, Module, 12VDC/24VAC
N3579TA-8C-R	FO MM TX 8 Contact Closure In, Card, 1-Slot
N3579RA-8C-M	FO MM RX 8 Contact Closure Out, Module, 12VDC/24VAC
N3579RA-8C-R	FO MM RX 8 Contact Closure Out, Card, 1-Slot
N3779TA-8C-M	FO SM TX 8 Contact Closure In, Module, 12VDC/24VAC
N3779TA-8C-R	FO SM TX 8 Contact Closure In, Card, 1-Slot
N3779RA-8C-M	FO SM RX 8 Contact Closure Out, Module, 12VDC/24VAC
N3779RA-8C-R	FO SM RX 8 Contact Closure Out, Card, 1-Slot

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system
- Alarm system

Configurations

- Compact 1 slot module and 1 slot card unit
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3784 Series

10/100M Auto Sensing Ethernet

Infinova[®]
The Integrator's Manufacturer



Ethernet<>

- **Data rates 10/100 Mbps auto sensing**
- **Communication - Selectable Full / Half Duplex**
- **Interface Auto MDI / MDI-X**
- **Non-blocking wire-speed reception and transmission, transmission without head-of-line blocking**
- **Support IEEE 802.3/802.3U auto-negotiation**
- **Support IEEE 802.3x full-duplex flow control and back-pressure half-duplex flow control**
- **Support feedback and diagnosis functions**
- **Detect the VLAN ARP for data packet**
- **Detection and correction of port polarity at the physical layer**
- **Compact structure for easy installation**
- **Hot swapping design**
- **With status indication for power, Ethernet and optical link**

N3784 series provides the ability to transmit and receive up to 4 channels, 4 ports, 10/100Mbps auto sensing Ethernet signal over one fiber.

Modular in design, N3784 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with the N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Ethernet

IEEE802.3 compliant

Data Rate	10/100Mbps
Ports	RJ-45 connector, 4 ports, shielded

Optical Performance

Fiber Type	Single-mode
Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550 nm
Connector	FC

LED Indicators

Power On	Red
Optical Link	Red
Ethernet Signal Active	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.57" (20mm x 129mm x 167mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.76" (24mm x 158mm x 197mm)
Power Consumption	3.0W
Card Weight	0.84lbs. (0.38kg)
Module Weight	1.59lbs. (0.72kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-819E; ² BCT09HC-818E

Ordering information

N3784XA-4FE-M	FO SM Ethernet 4-Port Transceiver 10/100 BASE-T, Module, 12VDC/24VAC
N3784XA-4FE-R	FO SM Ethernet 4-Port Transceiver 10/100 BASE-T, Card, 1-Slot
N3784XB-4FE-M	FO SM Ethernet 4-Port Transceiver 10/100 BASE-T, Module, 12VDC/24VAC
N3784XB-4FE-R	FO SM Ethernet 4-Port Transceiver 10/100 BASE-T, Card, 1-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Single-mode	20	1310/1550	25
	*Higher output lasers available for range over 25km		

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

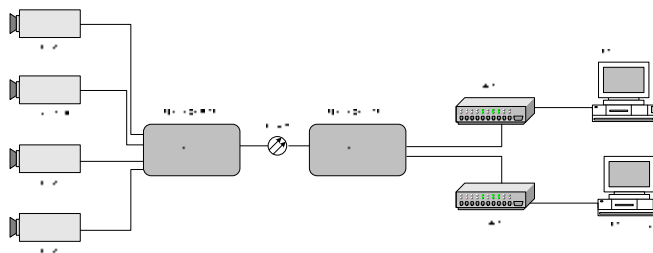
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3785 Series

10/100M Ethernet Transceiver with DIP Selectable Duplex Data

Infinova[®]
The Integrator's Manufacturer



Ethernet<> + D<>

- **10/100M self adaptive Ethernet**
- **Non-blocking wire-speed reception and transmission, transmission without head-of-line blocking**
- **Support IEEE 802.3/802.3U auto-negotiation**
- **Support IEEE 802.3x for full duplex flow control and back-pressure for half duplex flow control**
- **Support feedback and diagnosis functions**
- **Detect the VLAN ARP for data packet**
- **Detection and correction of port polarity at the physical layer**
- **Support data formats of RS422, RS485 and RS232**
- **Lightning-protection function available at the data interfaces**
- **Compact structure for easy installation**
- **Hot swapping design**
- **With status indication for power, Ethernet, data and optical link**

N3785 series provides the ability to transmit the digitally encoded signal of 1-ch 10/100Mbps self-adaptive shared Ethernet and 2-ch RS485 or RS232 plus 1-ch duplex RS422 data over one optic fiber.

The transceiver has built-in switch function. In addition, two RJ45 Ethernet ports are available on the transmitter and receiver.

Technical specifications

Ethernet

Connector	Magnetically shielded RJ45 connector
Ports	2
Operation Mode	10/100Mbps, self-adaptive

Optical Performance

Fiber Type	Single-mode
Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550 nm
Connector	FC

Data Performance

Connector	Industrial terminal block
Baud Rate	0~115.2 kbps
Bit Error Rate	<10 ⁻⁹

LED Indicators

Power On	Red
Optical Link	Red
Data Input/Output	Green
Ethernet Signal Active	Green

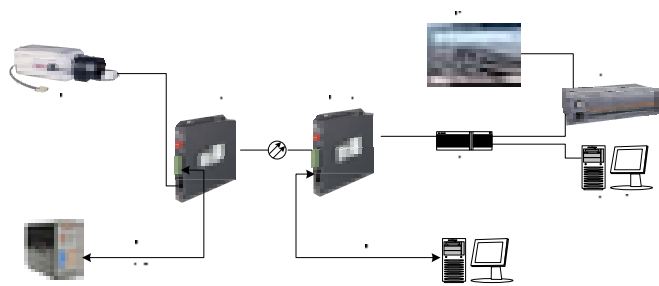
General Parameters

Operating Temperature	-40°F ~ +165.2°F (-40°C ~ +74°C)
Storage Temperature	-40°F ~ +185°F (-40°C ~ +85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Power Consumption	3.0 W
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.58" (20mm x 129mm x 167mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.56" (24mm x 158mm x 197mm)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	CE, FCC, ISO 9001:2008
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System diagram



Ordering information

N3785XA-M	FO SM, digital, Ethernet Transceiver 10/100BASE-T, 2 RJ45, 2 Half duplex RS485 IO+1 RS-422 IO, Module, 12VDC/24VAC
N3785XA-R	FO SM, digital, Ethernet Transceiver 10/100BASE-T, 2 RJ45, 2 Half duplex RS485 IO+1 RS-422 IO, Card, 1-Slot
N3785XB-M	FO SM, digital, Ethernet Transceiver 10/100BASE-T, 2 RJ45, 2 Half duplex RS485 IO+1 RS-422 IO, Module, 12VDC/24VAC
N3785XB-R	FO SM, digital, Ethernet Transceiver 10/100BASE-T, 2 RJ45, 2 Half duplex RS485 IO+1 RS-422 IO, Card, 1-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Single-mode	20	1310/1550	25
	*Higher output lasers available for range over 25km		

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth.
- Range estimates are based on 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm, and include a 3 dB safety factor.

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

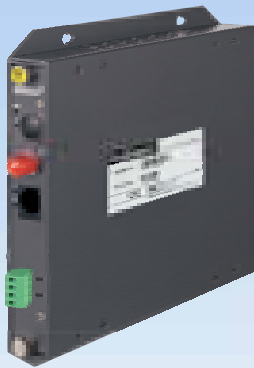
Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

N3586 & N3786 Series

Single Channel POTS or PBX Telephone Capability

Infinova[®]
The Integrator's Manufacturer



POTS TEL<>

- **Digitally encoded modulation**
- **Surface mount technology**
- **POTS or PBX telephone compatible**
- **Supports 90 V and touch-tone**
- **RJ-11 jack connector**
- **4-pin terminal block data connector**
- **On-board DIP selection of RS-422, RS-485 (2 or 4 wires), Manchester/Biphase**
- **Jumper activation of 120 Ohm termination resistor**
- **LED indicators for monitoring of system operating status**
- **Surge protection**
- **Highest optical dynamic range**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **24 VAC power supply**
- **No user adjustments required**

N3586 and N3786 series provides the ability to transmit and receive a 1-ch POTS or PBX telephone signal with one DIP selectable data (RS-422/RS-485/Manchester/Biphase) over one fiber.

Modular in design, the N3586 and N3786 series can be rack-mounted or used as a stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with the N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Audio Performance

Ringer Voltage	75VRMS typical, 90VRMS maximum
Ringer Detection Voltage	35V
Ringer Frequency	17~60Hz
Ringer Holdup Time	200ms
Feedback Loss	40dB typical, 30dB minimum
Free Channel Signal Noise	75dB (weighted)
Balanced	70dB typical, 60dB minimum

Data Performance

Data Rate	DC to 115.2 kbps
Bit Error Rate	<10 ⁻⁹

Optical Performance

Single-mode

Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550 nm
Connector	FC

Multi-mode

Output Power	-15dBm (typical)
Receiver Sensitivity	-27dBm (typical)
Wavelength	1310/1310 nm
Connector	ST

LED Indicators

Power On	Red
Optical Link Loss	Red
Call Incoming	Green
Call Received	Green
Data Input/Output	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.57" (20mm x 129mm x 167mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.76" (24mm x 158mm x 197mm)
Power Consumption	< 5.5W
Card Weight	0.86lbs. (0.39kg)
Module Weight	1.63lbs. (0.74kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC ¹ , CE/EMC ² : EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, UL, cUL, ISO 9001:2008
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Certificate No.: ¹ BCT09HC-715E; ² BCT09HC-714E

Ordering information

N3586XA-M	FO MM POTS Line Transceiver, Module, 24VAC
N3586XA-R	FO MM POTS Line Transceiver, Card, 1-Slot
N3586XB-M	FO MM POTS Line Transceiver, Module, 24VAC
N3586XB-R	FO MM POTS Line Transceiver, Card, 1-Slot
N3786XA-M	FO SM POTS Line Transceiver, Module, 24VAC
N3786XA-R	FO SM POTS Line Transceiver, Card, 1-Slot
N3786XB-M	FO SM POTS Line Transceiver, Module, 24VAC
N3786XB-R	FO SM POTS Line Transceiver, Card, 1-Slot

Fiber Type	Optical Budget (dB)	Wavelength (nm)	Range (km)
Multi-mode	12	1310/1310	4.4
Single-mode	20	1310/1550	25
*Higher output lasers available for range over 25km			

Note:

- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth
- Range estimates are based on 1.0dB/km @ 1310nm on MM fiber, 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm on SM fiber, and include a 3dB safety factor
- Range estimates for multimode are based on 500MHz/km fiber

Accessories

Power Supply

N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3787 Series

10/100/1000M Ethernet Transmission System

Infinova[®]
The Integrator's Manufacturer



Ethernet<>

- **Storage and forward mode to match devices at different speeds**
- **Non-blocking wire-speed reception and transmission, transmission without head-of-line blocking**
- **Support feedback and diagnosis functions**
- **Detection and correction of port polarity at the physical layer**
- **Support IEEE802.1Q protocol**
- **Support 1000M optical port**
- **The Ethernet optical ports support full/half duplex (self-adaptive)**
- **Support IEEE 802.3x for full duplex flow control and back-pressure for half duplex flow control**
- **Support MAC address self-learning and update**
- **Support 802.1P protocol and QoS mechanism**
- **Compact structure for easy installation**
- **Hot swapping design**
- **With status indication for power, Ethernet and optical link**

With prevalence of 1000M Ethernet and increasing transmission demand of large-capacity data, optic fiber now becomes the perfect choice for remote transmission of 1000M Ethernet signals. To meet clients' higher requirements, Infinova recently released the cost-effective N3787 series 10/100/1000M Ethernet point-to-point fiber optic transmission system.

N3787 series single mode transmission system provides the ability to transmit 1000M Ethernet data over one fiber in full duplex and point-to-point mode. The Ethernet signal on two ends are 10/100/1000M self-adaptive. There are two or eight RJ45 Ethernet ports on the transmitter and receiver, easy to connect with different Ethernet devices.

Technical specifications

Ethernet

Connector	Magnetically shielded RJ45 connector
Ports	2 or 8
Operation Mode	10/100M or 10M/100M/1000M, self-adaptive

Optical Performance

Fiber Type	Single-mode
Output Power	-10dBm (typical)
Receiver Sensitivity	-30dBm (typical)
Wavelength	1310/1550nm
Transmission Distance	20km, 40km and 80km optional
Speed of Forward / Reverse Transmission	1.25G/1.25G
Connector	FC

LED Indicators

Power On	Red
Optical Link	Red
Ethernet Signal Active	Green

General Parameters

Operating Temperature	-40°F ~ +165.2°F (-40°C ~ +74°C)
Storage Temperature	-40°F ~ +185°F (-40°C ~ +85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)

Mechanical Parameters

Dimension (2-slot module) (W x H x D)	1.73" x 6.22" x 7.56" (44mm x 158mm x 197mm)
Dimension (2-slots card) (W x H x D)	1.58" x 5.08" x 6.58" (40mm x 129mm x 167mm)
Dimension (1-slot module) (W x H x D)	0.95" x 6.22" x 7.56" (24mm x 158mm x 197mm)
Dimension (1-slot card) (W x H x D)	0.79" x 5.08" x 6.58" (20mm x 129mm x 167mm)

Stability

Mean Time Between Failures	>100,000 Hrs
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Certifications and Approval

Product Certifications	CE, FCC, ISO 9001:2008
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Ordering information

N3787XA-GE-20-M	FO SM, digital, Ethernet 2-Port Transceiver 10/100/1000BASE-T, Module, 12VDC/24VAC, 20km
N3787XB-GE-20-M	FO SM, digital, Ethernet 2-Port Transceiver 10/100/1000BASE-T, Module, 12VDC/24VAC, 20km
N3787XA-8FE-20-M	FO SM, digital, Ethernet 8-Port Transceiver 10/100BASE-T, Module, 12VDC/24VAC, 20km (work together with N3787XB-GE)

Note:

- For Card unit, replace "-M" with "-R" in the model number.
- "-20" in the model number indicates the transmission distance. For 40 or 80 km, replace "-20" with "-40" or "-80".
- Distance is limited to fiber loss, splices, chromatic dispersion and bandwidth.
- Range estimates are based on 0.35dB/km @ 1310nm and 0.25dB/km @ 1550nm, and include a 3 dB safety factor.

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

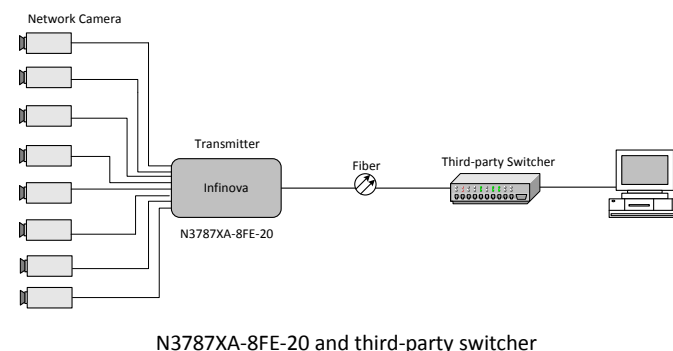
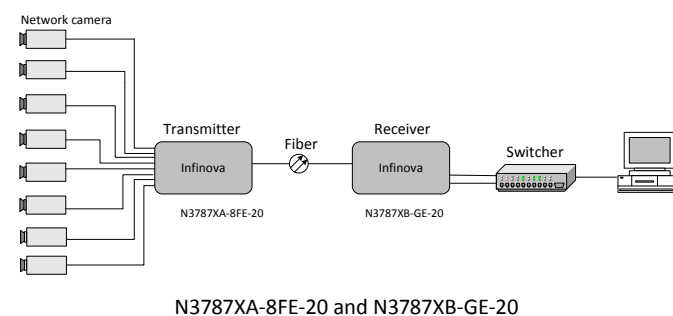
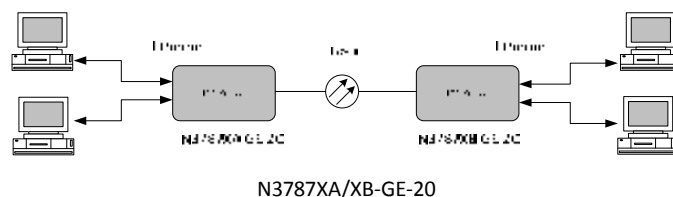
Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Configurations

- Compact 1 slot modules and 1 slot card units
- Compact 2 slot modules and 2 slot card units
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

System diagram



N3910 & N3920 Series

Chassis and Power Supply

Infinova[®]
The Integrator's Manufacturer



1-Slot Chassis
N3910-1S



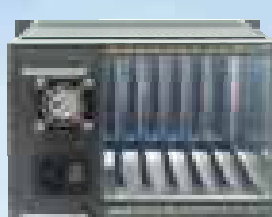
2-Slot Chassis
N3910-2S



3-Slot Chassis
N3910-3S



4-Slot Chassis
N3910-4S



6-Slot Chassis
N3910-6W1

- **Dense structure for easy installation**
- **Immune to EMI and RFI**
- **Hot swappable rack-mount cards**
- **Accommodate all Infinova fiber optic transceivers**

N3910 series chassis includes 1-slot, 2-slot, 3-slot, 4-slot, 6-slot, 15-slot and 18-slot chassis. The units are a result of unique engineering design and feature aluminum extrusions. They provide easy conversion and expansion from module to rack-mount equipment at no cost to the end user.

Technical specifications

General Parameters

Operating Temperature	-40°F ~ +165°F (-40°C ~ +74°C)
Storage Temperature	-40°F ~ +185°F (-40°C ~ +85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)

Certifications and Approval

Product Certifications	CE/EMC ¹ : EN 55022, EN 55024, UL 60950, ISO 9001:2008
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Certificate No.: ¹ CTE05110025

Components

N3910-18S:	FO Card Chassis, 18-Slot, 19" × 3U Sub-Rack, w/o p.s.
N3910-15R:	FO Card Chassis, 15-Slot, 19" × 3U Sub-Rack, w/o dual p.s.
N3910-6W:	FO Card Chassis, 6-Slot, 9" × 3U Sub-Rack, w/o p.s.

Accessories

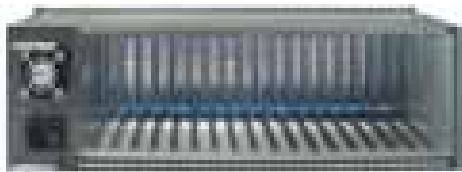
N3910-000:	Fan Assembly Unit, 19" × 1U, 120VAC
N3910X-000:	Fan Assembly Unit, 19" × 1U, 230VAC
NBP1:	FO 1-Slot Blank Panel
NBP2:	FO 2-Slot Blank Panel
NBP4:	FO 4-Slot Blank Panel

Applications

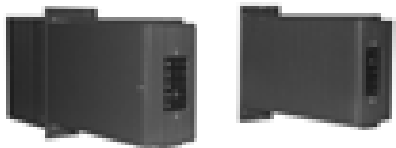
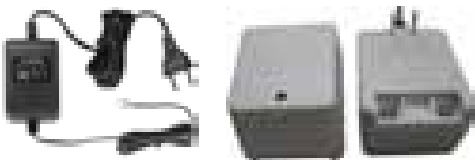
- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system

Ordering information

Chassis	Part Number	Description	Dimensions (H x W x D)
1-Slot	N3910-1S	Available with the Power Supply of 12VDC, 10VA or 24 VAC, 20VA	6.22"×0.94"×7.32" (158mm×24mm×186mm)
2-Slot	N3910-2S	Available with the Power Supply of 12VDC, 10VA or 24 VAC, 20VA	6.22"×1.73"×7.32" (158mm×44mm×186mm)
3-Slot	N3910-3S	Available with the Power Supply of 12VDC, 18VA or 24 VAC, 36VA	6.22"×2.56"×7.32" (158mm×65mm×186mm)
4-Slot	N3910-4S	Available with the Power Supply of 12VDC, 18VA or 24 VAC, 36VA	6.22"×3.35"×7.32" (158mm×85mm×186mm)
6-Slot	N3910-6W1	Wall mount chassis, with 100W Power Supply	5.23"×9.41"×9.53" (133mm×239mm×242mm)



19" x 3U Sub-Rack



Power Supply

N3920 series are 100W or 250W inner power supplies with 120/230VAC input which are embedded into the N3910 chassis. This series will power all Infinova card unit transmitter, receiver and transceiver for video, audio and data.

N3921 and N3922 series are transformers that power all stand-alone fiber optic units. N3921 series are available in 4 modules: 120VAC or 230VAC inputs to 12VDC or 24VAC outputs.

Components

N3920-100W	Power Supply, 100W, 120VAC/230VAC (1X for N3910-18S & N3910-4W, 2X for N3910-15R)
N3920-250W	Power Supply, 250W, 120VAC/230VAC (1X for N3910-18S, 2X for N3910-15R)

Compliance

N3920-100W	UL 60950, FCC, CE and cUL
N3920-250W	FCC, CE
ISO 9001:2008	
N3921	CE, UL
N3922	CE, UL

Ordering information

Sub-Rack	Part Number	Description	Dimensions (H x W x D)
18-Slot Sub-Rack	N3910-18S	Without Power Supply	5.24"x19"x8.35" (133mm×483mm×212mm)
	N3910-18S1	With 100W Power Supply	5.24"x19"x9.53" (133mm×483mm×242mm)
	N3910-18S2	With 250W Power Supply	5.24"x19"x13.39" (133mm×483mm×340mm)
15-Slot Sub-Rack	N3910-15R	Without Power Supply	5.24"x19"x8.35" (133mm×483mm×212mm)
	N3910-15R1	With Redundant (2) 100W Power Supplies	5.24"x19"x9.53" (133mm×483mm×242mm)
	N3910-15R2	With Redundant (2) 250W Power Supplies	5.24"x19"x13.39" (133mm×483mm×340mm)

Power Supply	Part Number	Description	Dimensions (H x W x D)
Power Supply for Subrack	N3920-100W	100W Switching Power Supply for N3910-18S and N3910-15R Sub-Rack (120/230VAC) (+9V/6A, -9V/4A, +5V/1.5A)	5.04"x2.40"x7.24" (128mm×61mm×184mm)
	N3920-250W	250W Switching Power Supply for N3910-18S Sub-Rack (120/230VAC) (+9V/21A, -9V/6A, +5V/1.5A)	5.04"x2.40"x9.88" (128mm×61mm×251mm)
	N3921-12D-1	12VDC Plug-in Power Supply 10VA (120V), for 1 or 2 Slots	3.58"x2.72"x2.40" (91mm×69mm×61mm)
	N3921-24A-1	24VAC Plug-in Power Supply 20VA with LED (120V), for 1 or 2 Slots	3.58"x2.72"x2.40" (91mm×69mm×61mm)
	N3921-12D-2	12VDC Power Supply 10VA (230V), for 1 or 2 Slots	3.31"x2.24"x1.97" (84mm×57mm×50mm)
	N3921-24A-2	24VAC Power Supply 20VA (230V), for 1 or 2 Slots	3.27"x2.20"x1.93" (83mm×56mm×49mm)
	N3922-24A-1	24VAC Plug-in Power Supply 50VA (120V), for 3 or 4 Slots	3.25"x2.56"x2.38" (83mm×65mm×60mm)
	N3922-24A-2	24VAC Power Supply 50VA (230V), for 3 or 4 Slots	4.53"x2.95"x2.56" (115mm×75mm×65mm)

N3952 Series

Contact Closure Converter

Infinova[®]
The Integrator's Manufacturer



4 C.C<> to D<>, 8 C.C<> to D<>

- **Surface mount technology**
- **Compatible with contact closure**
- **LED indicators for monitoring of system operating status**
- **Immune to EMI and RFI**
- **Dense structure for easy installation**
- **Hot swappable rack mount cards**
- **Automatic re-settable fuses, short circuit protection**
- **12 VDC or 24 VAC power supply**
- **Industry standard connectors**
- **No user adjustments required**

N3952 contact closure converter provides the ability to convert 4-ch bidirectional or 8-ch unidirectional contact closures to 1-ch RS-232 / RS-422 data. It can provide long distance transmission of 4-ch bidirectional or 8-ch unidirectional contact closures via working with other Fiber Optic that perform the function of data transmission.

Modular in design, the N3952 series can be rack-mounted or used as stand-alone module. Rack mounting requires the N3910 series subrack. Stand-alone module is accomplished with N3910-1S and can be placed on a desktop or mounted to a wall.

Technical specifications

Contact Closures

Number of Channels	4/8
Response Time	8ms (Active low)
Contact Current	1 A @ 30 VDC, 0.5 A @ 125 VAC

LED Indicators

Power On	Red
Data Activity	Green
CC Signal Activity	Green

General Parameters

Operating Temperature	-40°F ~ 167°F (-40°C ~ 74°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0 ~ 95% RH (non-condensing)
Card Dimensions (W x H x D)	0.79" x 5.08" x 6.73" (20mm x 129mm x 171mm)
Module Dimensions (W x H x D)	0.94" x 6.22" x 7.87" (24mm x 158mm x 200mm)
Power Consumption	1.8W
Card Weight	0.80lbs. (0.36kg)
Module Weight	1.55lbs. (0.70kg)
Mean Time Between Failures	>100,000 Hrs

Certifications and Approval

Product Certifications	FCC, CE, ISO 9001:2008
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System diagram



Ordering information

Note: Factory default sets contact closure converting into RS-422 data. Please specify if it is needed to convert contact closure into RS-232 data.

N3952X-4-M	TRX, 4 Contact Closure IO, factory default set up RS-422 data, Module, 12VDC/24VAC
N3952X-4-R	TRX, 4 Contact Closure IO, factory default set up RS-422 data, Card, 1-Slot
N3952T-8-M	TX, 8 Contact Closure In, factory default set up RS-422 data, Module, 12VDC/24VAC
N3952T-8-R	TX, 8 Contact Closure In, factory default set up RS-422 data, Card, 1-Slot
N3952R-8-M	RX, 8 Contact Closure Out, factory default set up RS-422 data, Module, 12VDC/24VAC
N3952R-8-R	RX, 8 Contact Closure Out, factory default set up RS-422 data, Card, 1-Slot

Accessories

Power Supply

N3921-12D-1:	12 VDC (120 VAC), 10 VA
N3921-12D-2:	12 VDC (230 VAC), 10 VA
N3921-24A-1:	24 VAC (120 VAC), 20 VA
N3921-24A-2:	24 VAC (230 VAC), 20 VA

Applications

- Smart buildings
- Security and surveillance
- Intelligent transportation system
- Highway surveillance system
- Alarm system

Configurations

- Compact 1 slot module and 1 slot card unit
- 18 slots per 19" x 3U subrack; 100 W / 250 W power supply
- 15 slots per 19" x 3U subrack; 100 W / 250 W dual power supply

Specialized Product Family

V1750A Series

Pressurized Bracket Mount PTZ Dome Camera

Infinova[®]
The Integrator's Manufacturer



- **High-precision metal solid housing to ensure the internal high-pressure environment, dust-proof and water-proof, IP67 rating**
- **Internal sensors, for real-time display of the internal temperature and pressure**
- **Mutual exchange between Fahrenheit and Centigrade**
- **Multiple alarms associated with relay output, preset, pattern and autoscan**
- **2 privacy mask modes to shield private scenes**
- **Internal multi-protocol switcher, supporting multiple leading control protocols with high compatibility**
- **Password protection function to prevent illegal altering of the menu parameters**
- **Excellent anti-interference ability (electromagnetic, radio frequency, low current)**
- **Anti-ice/anti-mist, built-in heater and air circulating system**

V1750A series pressurized PTZ dome cameras feature a nitrogen pressurized stainless steel rim for maximum protection against airborne contaminants and moisture. Special valves minimize decrease in pressure over time. Solid-state sensors in the housing relay important system information, such as internal temperature and pressure readings, back to the control center. Non-volatile memory in the housing enables automatic downloads of camera presets and other data in the event that the camera and drive module must be replaced.

The domes are available with 23×12 and 36×12 optical/digital zooms, ensuring the ability to get the right camera for different projects. Digital Signal Processing technology provides enhanced clarity, color and detail, with the day/night camera; usable images can be delivered even in extremely low light conditions. Separate definable privacy zones can be set by administrators to prevent users from viewing restricted areas. The PTZ dome's direction indicators, which can be displayed on the monitor, denote the direction in which it is moving.

The internal multi-protocol receiver allows the domes to be compatible with control site devices from Infinova, such as the V2116 keyboards, and Infinova matrix switchers; as well as devices from the 3rd party manufacturers. These settings are automatically downloaded if a new dome drive is installed.

Technical specifications

Lens

Optical Zoom	23X, 36X
Aperture/ Focal Length	23X: F1.6~F3.7, f=3.6~82.8mm 36X: F1.6~F4.5, f=3.4~122.4mm
Angle of View	23X: 54° (Wide) / 2.5° (Tele) 36X: 57.8° (Wide) / 1.7° (Tele)
Min. Work Distance	23X: 0.01m (Wide) ~ 1.0m (Tele) 36X: 0.32m (Wide) ~ 1.5m (Tele)

Camera

Scanning System	2:1 Interlace Scanning
Image Sensor	23X: 1/4" Progressive scan CCD 36X: 1/4" Progressive scan CCD
Effective Pixels	PAL/440K: 752 (H) × 582 (V), NTSC/380K: 768 (H) × 494 (V)
Sensitivity (23X)	Color mode: 0.02 lux @ F1.6 (30IRE. AGC max. PAL: 1/50s, NTSC: 1/60s); 0.01 lux @ F1.6 (30IRE. AGC max. PAL: 1/3s, NTSC: 1/4s) B/W Mode: 0.01 lux @ F1.6 (30IRE. AGC max. PAL: 1/50s, NTSC: 1/60s); 0.01 lux @ F1.6 (30IRE. AGC max. PAL: 1/3s, NTSC: 1/4s)
Sensitivity (36X)	Color mode: 0.66 lux @ F1.6 (30IRE. PAL: 1/50s, NTSC: 1/60s); 0.01 lux @ F1.6 (30IRE. PAL: 1/3s, NTSC: 1/4s) B/W Mode: 0.01 lux @ F1.6 (30IRE. PAL: 1/3s, NTSC: 1/4s)
S/N Ratio	>50dB

Video

Video Type	PAL/NTSC (D/N)
Horizontal Resolution	23X: 540TVL 36X: 530TVL
Video Output	1.0±0.2Vp-p

Communication

Protocols	NFINOVA, PELCO-P/D, Up-the-Coax
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Operational

Manual Pan /Tilt Speed	0.5°~90° per second (0.5°~180° per second for 36X) (based on zoom position)
Preset Pan/Tilt Speed	240°/s, maximum (200°/s, maximum for 36X)
Pan Travel	360° continuous
Tilt Travel	-3°~90°
Preset Accuracy	±1° (±0.3° for 36X)
Zoom/Focus Accuracy	±0.5%
Presets	Pelco P/D / Up-the-Coax: 128; Infinova: 127
Patterns	4
Programmable Areas	16
Video Blanking Sectors	16
Spherical Privacy Zones	24
Tours	6
Alarm Inputs	4 alarm inputs

Image Mirror	Yes
WDR	23X: OFF/WDR/AD WDR/WDR*/AD WDR* 36X: ON/OFF
FNR	23X: OFF/AUTO/MANU 36X: /
Digital Zoom	1~12X adjustable
Digital Slow Shutter	Yes
Focus	AUTO / MANU / M/A
White Balance	AUTO / MANU
Backlight Compensation	ON/OFF
Shutter Speed	Auto: default set Manual: 23X: PAL: 1/1.5~1/30000s; NTSC: 1/2~1/30000s 36X: PAL: 1/1~1/10000s; NTSC: 1/1~1/10000s
Iris	AUTO / MANU / M/A

Mechanical

Product Dimension	12.1" × Φ10.6" (307mm × Φ270mm)
Product Weight	18.35lbs. (8.32 kg)
Shipping Weight	22.1lbs (10.00 kg)
Motor	Stepping motor
Dome Housing	Type 316 stainless steel
Dome Mount	Type 316 stainless steel

Pressure

Pressure	15.6~21.6psi (107.3~148.5kpa)
Pressure Relief	22.4psi (154kpa)
Pressure Alarm	15.5psi (106.6kpa)

Sync

Sync System	Internal/Line-locked
Internal Synchronization	Built-in sync generator
Line-locked Synchronization	Remote V-phase adjustment

Electrical

Power Supply	24VAC
Power Consumption	Outdoor: 50W
Power On In-Rush Current	2amps (maximum)

Environmental

Operating Temperature	-40°F ~ 122°F (-40°C ~ 50°C)
Storage Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Operating Humidity	0~100% RH (Non-condensing)
Rating	IP67
Fan & Heater	Continuous fan; auto-start heater

Certifications and Approval

Product Certifications	CE/EMC: EN 55022, EN 55024 ¹ ; FCC: Part15 Subpart B, Class B ² ; ISO 9001:2008
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Certificate No.: ¹ RSZ07070304-1&2; ² RSZ07070304.

Ordering information

Type	Bubble	23X D/N	36X D/N
Outdoor NTSC Camera 24VAC	Vandal-Resistant Clear	V1757A-COC3B6	V1753A-COC3B6
	Vandal-Resistant Smoked	V1757A-COS3B6	V1753A-COS3B6
Outdoor PAL Camera 24VAC	Vandal-Resistant Clear	V1757A-C1C3B6	V1753A-C1C3B6
	Vandal-Resistant Smoked	V1757A-C1S3B6	V1753A-C1S3B6

PTZ Dome Auxiliary

V1791 Nitrogen Recharge Kit, Complete with Tank, Regulator, 6 feet Hose and Air Chuck

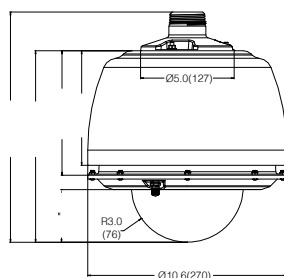
V1761S Wall Mount, Stainless Steel

V1762S Corner Mount, Stainless Steel

V1763S Pole Mount, Stainless Steel

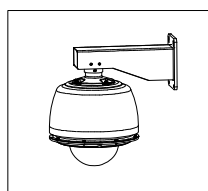
For detailed information, please refer to V1760 series indoor/outdoor dome mount.

Dimensions

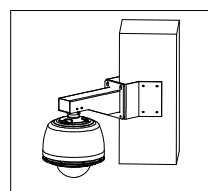


(Unit: inch, in the parentheses is mm)

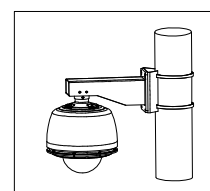
Mounting



Wall Mounting



Corner Mounting

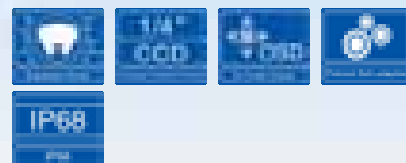


Pole Mounting

V1631 Series

Explosion-proof PTZ Camera System

Infinova[®]
The Integrator's Manufacturer



- **316 stainless steel construction**
- **Strong corrosion-resistant capabilities**
- **Use in flammable and explosive hazardous areas**
- **Compatible with PTZ control on three RS485 protocols (Auto-sensing): PELCO-P, PELCO-D, INFINOVA**
- **OSD menu programming, able to set address, baud rate and camera parameters**
- **128 Presets**
- **4 Patterns**
- **0.1°~25°/s variable-speed of Pan/Tilt movement**
- **360° continuous Pan/Tilt rotation**
- **IP68 environmental rating**

V1631 series explosion proof integrated PTZ camera is fully-developed and specially designed for use in flammable and explosive hazardous areas.

The system adopts stainless steel construction to ensure its good explosion-proof performance in hazardous areas. It has an absolute operating temperature range of -40°F~140°F (-40°C~60°C).

This explosion-proof camera is properly sealed to prevent the intake of flammable dust and ensure strong corrosion-resistant capabilities.

V1631 series allows 360°continuous pan/tilt rotation at the speed of 0.1~25°/s. An optoelectronic device is embedded to detect the position of camera housing. It will send signals to the processor when the camera housing is turned upside down. Then, the processor sends an order to flip the image for normal view.

V1631 series can be easily mounted in the following ways: surface mount, wall mount, corner mount, pole side mount, pole pendant mount, pole stand mount and pole top mount.

Technical specifications

Lens

Optic Zoom	23X, 36X
Digital Zoom	23X: 1~12X Adjustable 36X: 12X
Aperture/ Focal Length	23X: F1.6~F3.7; f=3.6~82.8mm 36X: F1.6- F4.5; f=3.4~122.4mm
Angle of View	23X: 54° (Wide)/2.5° (Tele) 36X: 57.8° (Wide)/1.7° (Tele)
Min. Work Distance	23X: 0.01m (Wide) ~ 1.0m (Tele) 36X: 0.32 m (Wide) ~ 1.5m (Tele)

Camera

Image Sensor	1/4" Progressive scanning CCD
Scanning System	2:1 Interlace Scanning
Video Type	23X: PAL (D/N) 36X: PAL/NTSC (D/N)
Sync System	Internal
Effective Pixels (H×V)	23X: 440K: 752×582; 36X: PAL/440K: 752× 582; NTSC/380K: 768×494
Sensitivity	23X: Color mode: 0.02 lux @F1.6 (30IRE. AGC max. 1/50s) 0.01 lux @F1.6 (30IRE. AGC max. 1/3s) B/W mode: 0.01 lux @F1.6 (30IRE. AGC max. 1/50s) 0.01 lux @F1.6 (30IRE. AGC max. 1/3s) 36X: Color mode: 0.66 lux @F1.6 (30 IRE, PAL: 1/50s, NTSC: 1/60s) 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC: 1/4s) B/W mode: 0.01 lux @F1.6 (30 IRE, PAL: 1/3s, NTSC:1/4s)
S/N Ratio	>50dB
Focus	Auto / Manual / M/A
Shutter Speed (23X)	Auto: Default Manual: 1/1.5~1/30000s
Shutter Speed (36X)	Auto: Default Manual: PAL: 1/1~1/10000s; NTSC: 1/1~1/10000s
Iris	Auto / Manual / M/A
DSS	Available

Image

Horizontal Resolution	23X: 540TVL 36X: 550TVL
BLC	ON/OFF
WDR	23X: OFF/WDR/AD WDR/WDR*/AD WDR* 36X: ON/OFF
White Balance	AUTO/MANU
AGC	AUTO/MANU
FNR	23X: OFF/AUTO/MANU 36X: AUTO/OFF
Stabilization	36X: ON/OFF

Interface

Video Output	1.0±0.2Vp-p
Mechanical	
Pan Rotation Angle	360°
Tilt Rotation Angle	360°
Pan Rotation Speed	0.1°/s to 25°/s
Tilt Rotation Speed	0.1°/s to 25°/s
Mounting	Surface, Wall, Corner, Pole Side, Pole Pendant, Pole Stand, Pole Top

Physical

Construction Material	Housing: 316 stainless steel Front Window: Tempered glass
Product Weight	84 lbs. (38±5%kg)
Shipping Weight	121 lbs. (55±5%kg)

Electrical

Input Voltage	100~240VAC
Voltage Range	±10%
Power Consumption	60W

Environmental

Environmental Rating	IP68
Atmospheric Pressure	80kpa~110kpa
Operating Temperature	-40°F ~ 140°F (-40°C~60°C)
Storage Temperature	-40°F ~ 140°F (-40°C~60°C)
Relative Humidity	95%RH (77°F/25°C)
Application Field	For Division 1 and 2 hazardous locations where fire or explosion hazards may exist due to the presence of flammable gases or vapors (Gas Groups: II A, II B, II C; Temperature Classes: T1-T6); For zone 21 and 22 hazardous locations where combustible dust clouds may occur

Certifications and Approval

IECEX, ExdIICT6 Gb, Ext IIIC T80°C Db ¹,
CNEx, ExdIICT6 Gb, DIP A21 TA, T6 ²,
CE/EMC: EN 55022, EN 55024, EN61000-3-2,61000-3-3 ³,
CE/LVD: EN 60950-1 ⁴,
FCC ⁵,
CCOE/PESO ⁶,
ISO 9001:2008

Certificate No.: ¹ IECEX CQM 12.0020X; ² CNEx12.1920X; ³ BCT09FC-495E; ⁴ BCT09FC-495S;
⁵ BCT09FC-496E; ⁶ P303531/1

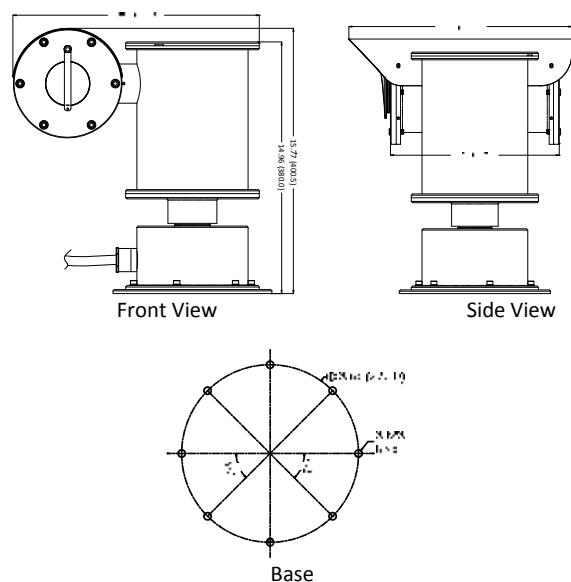
Ordering information

V1631-23A19-2	Explosion-proof PTZ camera system, 23X, PAL, 100~240VAC, 316 Stainless Steel
V1631-36A09-2	Explosion-proof PTZ camera system, 36X, NTSC, 100~240VAC, 316 Stainless Steel
V1631-36A19-2	Explosion-proof PTZ camera system, 36X, PAL, 100~240VAC, 316 Stainless Steel

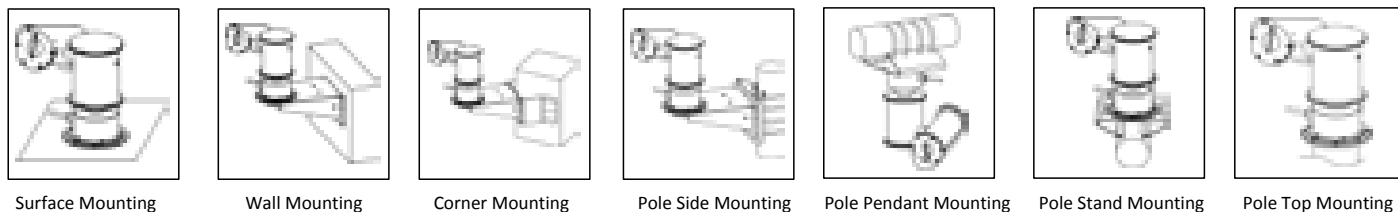
Recommended Installation Mounts

V1664-W	Wall Mount, 316 Stainless Steel
V1664-C	Corner Mount, 316 Stainless Steel
V1664-S	Pole Mount, 316 Stainless Steel

Dimensions

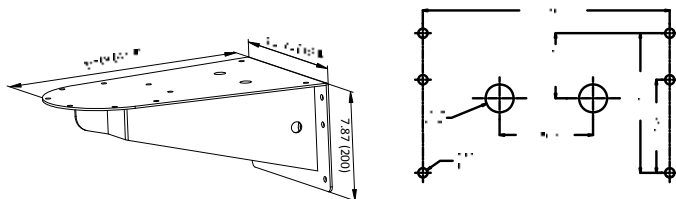


Mounting

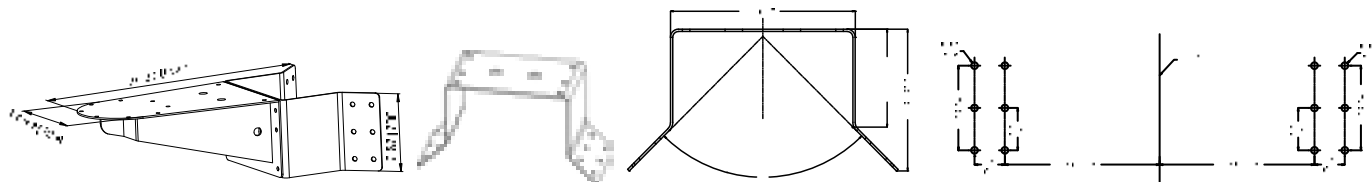


Mounts & adapters dimensions

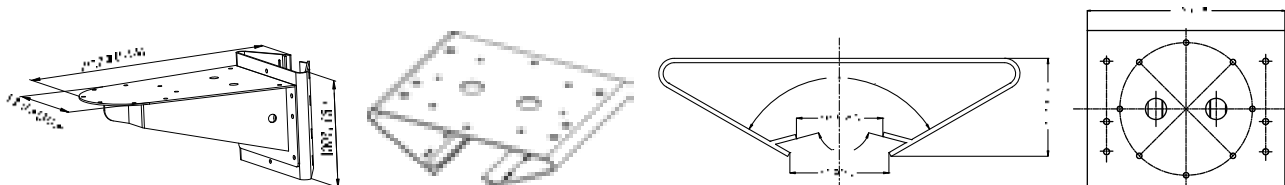
V1664-W Mount:



Corner Mount Adapters for V1664-C:



Pole Side Mount Adapters for V1664-S:



V1631MN-T Series

HD 2MP Explosion-proof IP PTZ Camera System

Infinova[®]
The Integrator's Manufacturer



- Embedded with 20X high-definition camera module
- Full HD IP video output with resolution up to 1920×1080@30fps
- 316 stainless steel construction, IP68 environmental rating
- Strong corrosion-resistant capabilities
- Use in flammable and explosive hazardous areas
- H.264 High profile/M-JPEG dual-stream encoding, three simultaneous video streams
- Two-way audio, G.711
- Support RS485 and analog video output for easy adjustment
- Support remote PTZ control
- Support area zoom and image PTZ
- Support graphic OSD display
- Multiple white balance modes
- Auto gain control
- Wide dynamic range
- Timed switch between color and B/W modes
- Local recording
- Support preset, pattern, auto-pan, tour and home return, etc.
- Support upgrade online
- 2 alarm inputs and 1 relay output
- Up to 4 motion detection areas
- Multiple ways to handle alarms, such as relay output, sending an email, FTP uploading and audible warning, etc.
- Onvif Profile S
- Built-in with wiper
- 0.1°~20°/s variable-speed of Pan/Tilt movement
- 360° continuous Pan/Tilt rotation

V1631MN-T series HD 2MP explosion-proof integrated IP PTZ camera is fully-developed and specially designed for use in flammable and explosive hazardous areas. The system uses 316 stainless steel to ensure its good explosion-proof performance in hazardous areas. It has an absolute operating temperature range of -40°F~140°F (-40°C~60°C). This camera is properly sealed to prevent the intake of flammable dust and ensure strong corrosion-resistant capabilities.

V1631MN-T supports H.264/M-JPEG dual-stream encoding and three simultaneous video streams. It's embedded with 20X HD zoom camera module with resolution up to 1920×1080@30fps.

The user-friendly GUI interface is designed for easy PTZ control and convenient camera parameter settings. Thus, it makes easier to set the PTZ and perform operations with a mouse than traditional keyboard. In addition, area zoom and image PTZ are also offered. The intelligent motion detection and multiple alarm responses make it even safer to use.

V1631MN-T series cameras also provide functions such as preset, pattern, autopan, autoscan and normal tour, etc.

The series also supports analog video output, RS-485 control and baud rate switch, convenient for various networking requirements.

V1631MN-T series allows 360°continuous pan/tilt rotation at the speed of 0.1~20°/s. An optoelectronic device is embedded to detect the position of camera housing. It will send signals to the processor when the camera housing is turned upside down. Then, the processor sends an order to flip the image for normal view.

Technical specifications

Models

V1631MN-20TT, V1631MN-20TL

Lens

Optic Zoom	20X
Aperture/ Focal Length	F1.6~F3.5, f=4.7~94mm
Angle of View	20TT: 59.6° (Wide) ~ 3.2° (Tele) 20TL: 59.5° (Wide) ~ 3.2° (Tele)
Min. Work Distance	0.01m (Wide) ~ 1.0m (Tele)

Camera

Image Sensor	1/2.8" CMOS
Scanning System	Progressive Scanning
Effective Pixels	2.0MP
S/N Ratio	>50dB
Sensitivity(20TT)	Color mode: 0.4 lux@ F1.6(1/30s, 350mV equiv., AGC-Gain: 48dB) 0.1 lux@ F1.6(1/8s, 350mV equiv., AGC-Gain: 48dB) B/W mode: 0.01 lux@ F1.6(1/8s, 350mV equiv., AGC-Gain: 48dB)
Sensitivity(20TL)	Color mode: 0.04 lux @ F1.6 (AGC ON) B/W mode: 0.005 lux @ F1.6 (AGC ON)
Sync System	Internal
Iris	Auto / Manual / M/A
Focus	Auto / Manual / M/A
Shutter Speed	20TT: Auto (1/1 ~ 1/30000s) 20TL: Auto (1/1 ~ 1/10000s)
DSS	Available

Image

Max. Resolution	1920×1080 @ 30fps
Image Mirror	OFF/H-mirror/V-mirror/HV-mirror
Image Freeze	20TT: Available 20TL: N/A
DNR	20TT: OFF/Manual/Auto (level 1-3 adjustable) 20TL: OFF/1~5 adjustable
White Balance	20TT: AUTO/MANU/SODI/MERC 20TL: AUTO/MANU/INDOOR/OUTDOOR/ATW/OUTDOOR AUTO/SODI AUTO
AGC	Available
WDR	20TT: WDR/AD WDR 20TL: ON/OFF
BLC	ON/OFF
Defog	Available
Others	20TT: Sharpness adjustable, slow AE, brightness enhancing 20TL: Sharpness, contrast, brightness, saturation adjustable, slow AE, chroma suppress, edge color suppress

Operational

Presets	1~255
Patterns	4
Autopans	4
Normal Tours	6 (each tour can be associated with 14 acts, including Preset 1~32, Pattern 1~4, AutoPan 1~4)
Home Return	Available
Timed Tours	Available
Auto Scan	Available

Motion Detection	4 areas
Alarm	2 alarm inputs, 1 relay output
Area Zoom	Available
Web Server	Available
Upgrade Online	Available

Network

Data Rate	Variable bit rate (vbr); Constant bit rate (cbr): 256Kbps~10Mbps
Network Delay	<300ms
Network Protocol	IPv4, TCP, UDP, IGMP, DHCP, FTP, SNMP(V3), SMTP, NTP, RTP, RTSP, RTCP, HTTP, HTTPS, TLS, SSL, 802.1X, QoS, PPPoE, DNS, ARP, ICMP

Compression

Audio Compression	G.711
Video Compression	H.264 high profile/M-JPEG

Interface

Audio Port	1 input (linear level, resistance: 1kΩ) 1 output (linear level, resistance: 600kΩ)
Network Port	1 * 10M/100M self-adaptive Ethernet port, RJ-45

Mechanical

Pan Rotation Angle	360°
Tilt Rotation Angle	360°
Pan Rotation Speed	0.1°/s to 20°/s
Tilt Rotation Speed	0.1°/s to 20°/s

Electrical

Input Voltage	100~240VAC
Current Rating	500mA
Power Consumption	80W
Voltage Range	±10%

Environmental

Atmospheric Pressure	86kpa~110kpa
Operating Temp.	-40°F~140°F (-40°C~+60°C)
Storage Temp.	-40°F~158°F (-40°C~+70°C)
Relative Humidity	≤95%RH (77°F/+25°C)
Application Field	For Division 1 and 2 hazardous locations where fire or explosion hazards may exist due to the presence of flammable gases or vapors (Gas Groups: II A, II B, II C; Temperature Classes: T1-T6); For zone 21 and 22 hazardous locations where combustible dust clouds may occur

Physical

Material	316 stainless steel
Environmental Rating	IP68 (1.5m/2h)
Product Weight	84 lbs. (38±5%kg)
Shipping Weight	121 lbs. (55±5%kg)
Mounting	Surface, Wall, Corner, Pole Side, Pole Pendant, Pole Stand, Pole Top

Certifications and Approval

Product Certifications	CNEx, ExdIICT6 Gb, DIP A21 TA, T6 ¹ , IECEx, ExdIICT6 Gb, ExIIICT80°C Db ² , CCOE ³ , ISO 9001:2008
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Certificate No.: ¹ CNEx12.1920X; ² IECEx CQM 12.0020X; ³ P338685/1

Ordering information

V1631MN-20T29T-2 HD 2MP Explosion-proof PTZ camera system,
2.0MP, 20X, 1/2.8" progressive scanning CMOS,
H.264/M-JPEG, 316 Stainless Steel, audio alarm,
100~240VAC

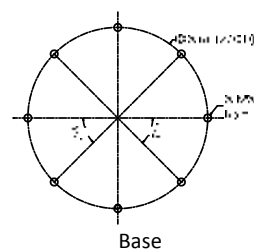
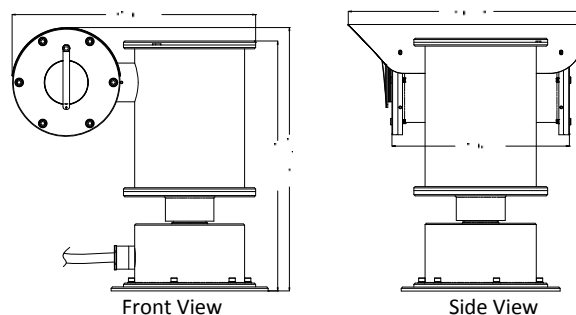
V1631MN-20T29L-2 HD 2MP Explosion-proof PTZ camera system,
2.0MP, 20X, 1/2.8" progressive scanning CMOS,
H.264/M-JPEG, 316 Stainless Steel, audio alarm,
100~240VAC

Recommended Installation Mounts

V1664-W Wall Mount, 316 Stainless Steel
V1664-C Corner Mount, 316 Stainless Steel
V1664-S Pole Mount, 316 Stainless Steel

Note: Mounting brackets shall be ordered.

Dimensions

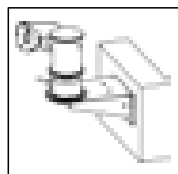


(Unit: inch, in the parentheses is mm)

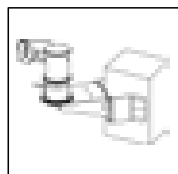
Mounting



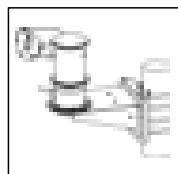
Surface Mounting



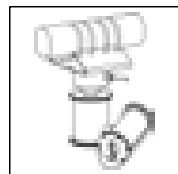
Wall Mounting



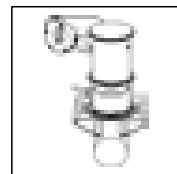
Corner Mounting



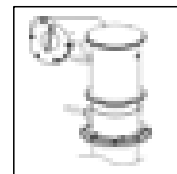
Pole Side Mounting



Pole Pendant Mounting



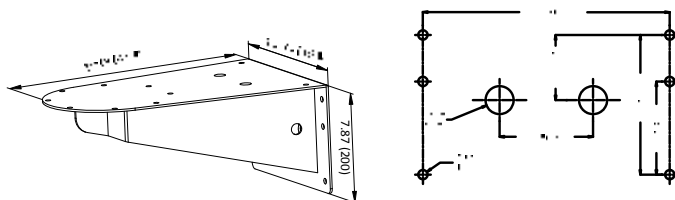
Pole Stand Mounting



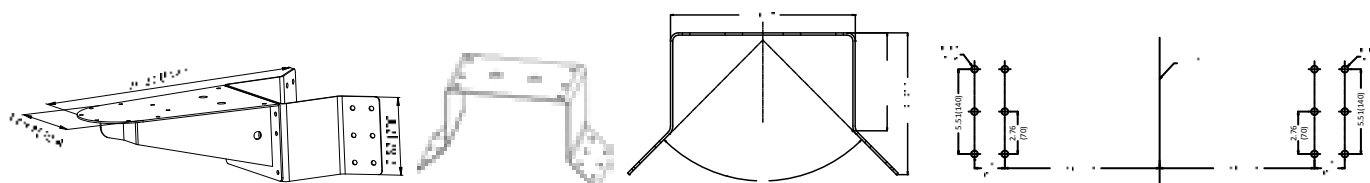
Pole Top Mounting

Mounts & adapters dimensions

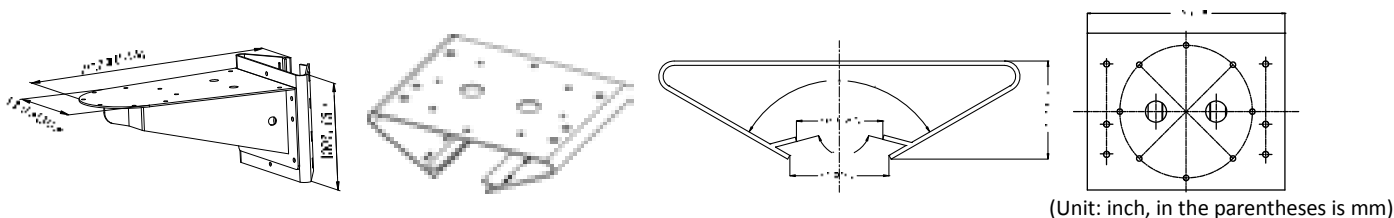
V1664-W Mount:



Corner Mount Adapters for V1664-C:



Pole Side Mount Adapters for V1664-S:



V1421 Series

Explosion-proof Camera Housing

Infinova[®]
The Integrator's Manufacturer



- **316 stainless steel construction**
- **The front end window utilizes steel glass**
- **Strong corrosion-resistant capabilities**
- **IP66 environmental protection**
- **Suitable for indoor/outdoor flammable and explosive hazardous areas**
- **Use with fixed mount or adjustable mount**

V1421 series explosion-proof products are housings that meet stringent corrosion-resistant requirements. The housing made of 316 stainless steel features excellent explosion-proof and strong corrosion-resistant capabilities. It is suitable for both indoor and outdoor installations. Infinova's line of fixed cameras and zoom cameras can be installed in this explosion-proof housing. The V1421 housing is ideal for use in environmental conditions including chemical industry, oil storeroom and fuel facilities.

The features in the design are in accordance with IECEx standard. The symbol for explosion-proof camera housing is ExdIICT6. Environmental protection is IP66.

Technical specifications

V1421 General Parameters

Mechanical

Construction 316 Stainless Steel

Environmental Rating IP66

Physical

External Dimensions (W×H×L) 6.46"×6.46"×18.50"
(164 mm×164 mm×470 mm)

Internal Dimensions (W×H×L) 2.68"×3.15"×10.24"
(68 mm×80 mm×260 mm)

Unit Weight 30.86 lbs. (14 kg)

Shipping Weight 33.07 lbs. (15 kg)

Box Dimensions (W×H×L) 9.53"×9.92"×21.73"
(242 mm×252 mm×552 mm)

Electrical

Input Voltage 24 VAC / 110 VAC / 230 VAC, 60/50 Hz

Power Consumption 30 W (Maximum)

Environmental

Atmospheric Pressure 86kpa~106kpa

Operating Temperature -4 °F ~ 140 °F (-20 °C~+60 °C)

Relative Humidity 95% RH (77°F/25°C)

Application Field For Division 1 and 2 hazardous locations where fire or explosion hazards may exist due to the presence of flammable gases or vapors (Gas Groups: II A, II B, II C; Temperature Classes: T1-T6)

Certifications and Approval

IECEX, ExdIICT6¹,
CNEx, ExdIICT6²,
CE/EMC³: EN 55022, EN 55024, EN61000-3-2,61000-3-3,
CE/LVD⁴: EN 60950-1,
FCC⁵,
ISO 9001:2008

Certificate No.: ¹ IECEX CQM 09.0001; ² CNEx 08.1401X; ³ BCT09FC-499E; ⁴ BCT09FC-499S;
⁵ BCT09FC-500E

V1665-W1 General Parameters

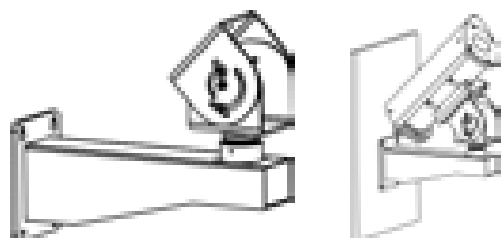
Construction 316 Stainless Steel

Unit Weight 8.82 lbs. (4kg)

Shipping Weight 11.02 lbs. (5kg)

Box Dimensions (L×W×H) 17.52"×12.60"×6.69"
(445 mm×320 mm×170 mm)

Installation



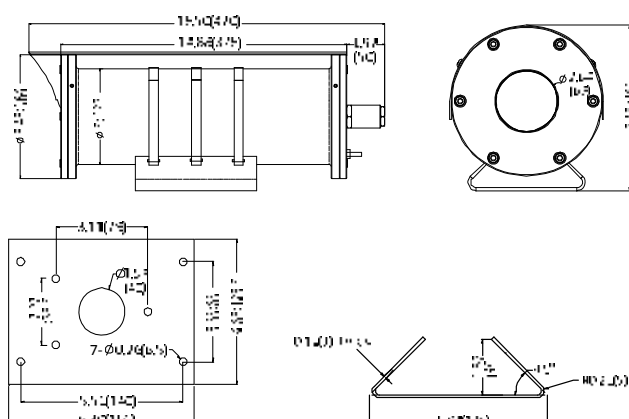
Ordering information

V1421-15SHB6-2	Camera housing, explosion-proof, 15 inch, w/ sunshield, wiper, heater, blower, 316 Stainless Steel, outdoor, 24VAC
V1421-15SHB7-2	Camera housing, explosion-proof, 15 inch, w/ sunshield, wiper, heater, blower, 316 Stainless Steel, outdoor, 110VAC
V1421-15SHB8-2	Camera housing, explosion-proof, 15 inch, w/ sunshield, wiper, heater, blower, 316 Stainless Steel, outdoor, 230VAC
V1421-15A6-2	Camera housing, explosion-proof, 15 inch, 316 Stainless Steel, indoor, 24VAC
V1421-15A7-2	Camera housing, explosion-proof, 15 inch, 316 Stainless Steel, indoor, 110VAC
V1421-15A8-2	Camera housing, explosion-proof, 15 inch, 316 Stainless Steel, indoor, 230VAC

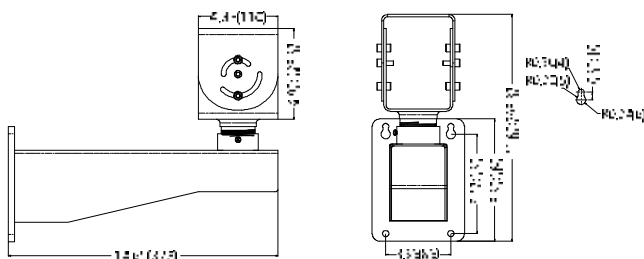
Mounts

V1665-W1 Adjustable Wall Mount, 316 Stainless Steel

Housing dimensions



Mount dimensions



(Unit: inch, in the parentheses is mm)

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