Broadcast and Entertainment Products

15th Edition

Broadcast and Entertainment Products

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Introduction
The ADC Difference

For more than 50 years, ADC has led the industry as a premier developer of audio, video, and data patching products. This tradition continues today in our state-of-the-art manufacturing facilities, where virtually all of our own components are designed, engineered and manufactured.

All of ADC's products are designed for outstanding performance in demanding, real world situations. Our engineers understand the many different applications that are possible in the industry, and as a result, they create products that can solve difficult problems other manufacturers tend to overlook.

View onto screw-machine area at Shakopee, MN facility

Once you've found the ADC product that fits your needs, requesting it is simple with our easy-to-follow ordering information charts. The charts display all available options, and you simply select the catalog number for the specific product and feature set you want. If you don't see the specific configuration you need, contact ADC for information about custom designed products. Our Technical Assistance Center (TAC) is available 24 hours a day, seven days a week.

For an even faster and more convenient source of additional information about ADC's high-quality products, visit www.adc.com. From our website, you can search for a desired catalog number, or browse our online products and services area for specific part numbers.

ADC's state-of-the-art facility in Shakopee, MN

From durable patchbays and jackfields to precision jacks and connectors, consistent quality is the hallmark of everything ADC produces. Everything at ADC is built to last, from the corrosion-resistant nickel plating on our patch plugs, to the tough steel chassis of our patch panels. ADC anticipates common failure points and overcomes them using the best available materials. Our strict adherence to quality standards and careful manufacturing assures dependable, long-lasting products.

Introduction

Products to meet your needs…

ADC continues to lead in innovative patching and connector products. As a result of listening to our customers, the following new and exciting products have been developed to enhance the performance and durability of your broadcast infrastructure:

ProPatch® Miniature (PPM) Series Patching System

The ProPatch® Miniature (PPM) Series is an all new Super High-Density Coax (SHDC) patching system designed for High Definition (HD), SDI, AES audio, 5.1 and 7.1 audio applications where coax medium is preferred but space is at a premium. The system is available in both 1 and 1.5 rack unit configurations. The 1 rack unit panel features a patent-pending pullout designation strip that dramatically increases space for text, and a high-density 2x48 circuit configuration of ports. The 1.5 rack unit panel features 4x48 ports.

ProPatch® Programmable (PPP) Series Patching System

The ultimate audio patch panel is now a reality. The new ProPatch® Programmable patching system (patent number 6,875,060) combines the ruggedness and reliability of true WECO-compliant jacks with a precision DIP switch, enabling users to change normalling and grounds quickly and easily. Specifically designed for tough mobile environments, the ultra-lightweight ProPatch Programmable panel weighs about six pounds and is only five-inches deep. It is available in both bantam and longframe styles. The ProPatch® Programmable modular system offers unprecedented reliability and flexibility in a convenient, space-saving size and lightweight package. Specifically engineered for everyday use in demanding mobile trucks, the ProPatch Programmable system is the only product in its class that passes stringent MIL-STD-202F standards for vibration and environmental requirements.

Introduction

Products to meet your needs…

UniPatch® GigE Patching System

ADC has designed a professional broadcast-quality Gigabit (1000 baseT) patching system for demanding professional environments where frequent patching and higher density is required. The system features a high-density 32-port normal-through card frame system to ADC Direct-Edge LSA-PLUS® termination system. Now you can patch Ethernet data properly using reliable durable military-grade jacks rated for 30,000 insertion/withdrawal cycles. The Cat 6 rated patch cords are keyed to ensure proper patching.

ProPatch® Fiber (PPF) Series Patching System

ADC leads the fiber patching market with the ProPatch® Fiber (PPF) patching system, the industry's first true broadcast fiber solution. ADC's ProPatch® Fiber (PPF) Patching system is designed by broadcast professionals for broadcast professionals. ADC combines its proven innovation and quality in broadcast patching design and manufacturing with its industry leading proficiency in fiber connectivity. The result is a true broadcast fiber connectivity product offering. PPF is a compliment to the proven copper connectivity product line. Solutions range from Fiber Bulkhead Panels (FL2000 Series) and Fiber Management Trays (FMT Series) to High-Density Patching Solutions (OMX600® Series). The portfolio also includes Specialty Fiber Optic Cable, Fiber Cable Management Solutions (FiberGuide® and RiserGuide), Patch Cords and Accessories in all popular connector styles.

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Video Patching Systems

ProPatch® Miniature (PPM) Series
- Super High-Density Coax Patching System 1.1
- SHDC Jack 1.3
- Accessories 1.5

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Video Patching Systems

ProPatch® Miniature (PPM) Series

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Super High-Density Coax Patching System

The ProPatch® Miniature (PPM) Series is an all new Super High-Density Coax (SHDC) patching system designed for High Definition (HD), SDI, AES audio, 5.1 and 7.1 audio applications where coax medium is preferred but space is at a premium. The system is available in both 1 and 1.5 rack unit configurations. The 1 rack unit panel features a patent-pending pullout designation strip that dramatically increases space for text, and a high-density 2x48 circuit configuration of ports. The 1.5 rack unit panel features 4x48 ports.

The SHDC jack features a unique patent-pending switchable termination system that allows the user to select terminating and non-terminating 75 Ω functions on each circuit pair. The normal-through system is also available in a straight-through configuration for tie-line panels and applications where normals are not required. The SHDC high-performance normalling and straight-through LCC jacks are rated to SMPTE 424M HD standard. The SHDC AES jacks are rated for AES digital audio and analog video transmission. Both versions feature modular screwless mounting, circuit identification icons on the rear of the jack, 10,000 insertion/withdrawal cycles and are fully qualified to MIL-STD 202 for the ultimate in durability.

The system features two options. ADC's patented push-pull LCC connector technology on the backplane, or standard 1.0/2.3 connectors and ADC's patented LCC and LCP connectors terminate the same as a BNC using standard tooling.

1 Rack Unit Super High-Density Coax Patch Panel

Features

- High-density: 48 total jacks (2x48)
- Large designation strips: .440" wide designation on top and bottom; plus a 1" slide out designation
- Lightweight: Less then 1 Kg (2 lbs) total panel weight

1.5 Rack Unit Super High-Density Coax Patch Panel

Features

- High-density: 48 total jacks (2x48)
- Large designation strips: .680" designation on top and bottom
- Lightweight: Less then 1.4 Kg (3 lbs) total panel weight

1.5 Rack Unit Super High-Density Coax Patch Panel

Features

- High-density: 96 total jacks (4x48)
- Large designation strips: .440" wide middle designation, .289" on top and bottom
- Lightweight: Less then 1.8 Kg (3.8 lbs) total panel weight

Video Patching Systems

ProPatch® Miniature (PPM) Series

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Specifications

ELECTRICAL

Characteristic impedance:	75 Ω
Voltage rating:	600 Volts RMS
Bandwidth	
HD LCC:	Up to 3 GHz
HD 1.0/2.3:	Up to 1.0 GHz
Straight-through LCC:	Up to 3 GHz
Straight-through 1.0/2.3:	Up to 1.0 GHz
AES:	Up to 500 MHz
Contact resistance:	.030 Ω max change post environmental
Insulation resistance:	200 MΩ min change

MECHANICAL

Mechanical durability:	10,000 cycles min (Front port: LCP) 500 cycles min (Back port: LCC)
Center contact retention:	6 lbs min
SHDC jack panel retention:	20 lbs min
Patch cord cable bend and twist:	500 cycles min

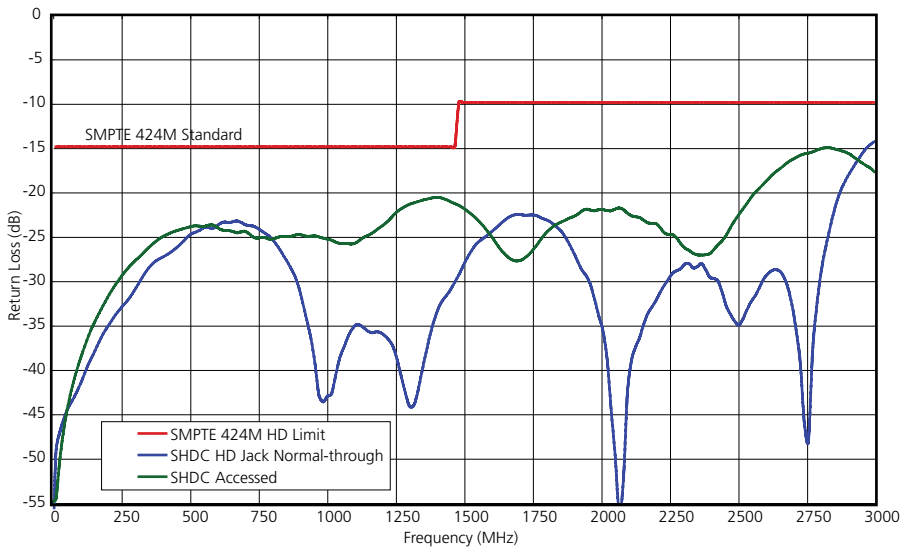
ENVIRONMENTAL

Thermal shock:	-40° C to 65° C, operating; -55° C to 85° C, non-operating
Moisture resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (salt spray):	MIL-STD-202 Method 101, test condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent resistance:	MIL-STD-202 Method 215

FINISH

Sheet metal panel:	.060 CRS with protective black finish
Jack plastic housing:	30% Glass Filled Valox
Nickel coax housings:	Tarnish-resistant electroless nickel plating
Springs:	Beryllium copper with 50 millionths inch gold plating
Center conductors:	50 millionths inch gold plating

Gated Return Loss
High-Performance SHDC LCC Jack



Video Patching Systems

ProPatch® Miniature (PPM) Series

Ordering Information

Description					Catalog Number
ProPatch® Miniature (PPM) Panels					
2x48	1 RU	LCC	Normalling	AES and Analog Video	PPM1248-LCC-BK
				High-Performance, HD	PPM1248-LCCHP-BK
			Non-Normalling	High-Performance	PPM1248-LCCNN-BK
		1.0/2.3 jack	Normalling	AES and Analog Video	PPM1248-1023-BK
				High-Performance, HD	PPM1248-1023HP-BK
			Non-Normalling	High-Performance	PPM1248-1023NN-BK
	1.5 RU	LCC	Normalling	AES and Analog Video	PPM15248-LCC-BK
				High-Performance	PPM15248-LCCHP-BK
			Non-Normalling	High-Performance	PPM15248-LCCNN-BK
		1.0/2.3 jack	Normalling	AES and Analog Video	PPM15248-1023-BK
				High-Performance	PPM15248-1023HP-BK
			Non-Normalling	High-Performance	PPM15248-1023NN-BK
4x48	1.5 RU	LCC	Normalling	AES and Analog Video	PPM15448-LCC-BK
				High-Performance	PPM15448-LCCHP-BK
			Non-Normalling	High-Performance	PPM15448-LCCNN-BK
		1.0/2.3 jack	Normalling	AES and Analog Video	PPM15448-1023-BK
				High-Performance	PPM15448-1023HP-BK
			Non-Normalling	High-Performance	PPM15448-1023NN-BK

SHDC Jack

Features

- Switchable between terminating and non-terminating normalled-through
- Non-normalled jack offered in same jack housing, looping plug available for circuit patching

	Normalling AES	Straight-Through HD	Normalling HD
LCC	SHDC-LCC	SHDC-LCC-NN	SHDC-LCC-HP
1.0/2.3	SHDC-1023	SHDC-1023-NN	SHDC-1023-HP

Video Patching Systems

ProPatch® Miniature (PPM) Series

SHDC Jacks for PPM Panels

ELECTRICAL

Characteristic impedance:	75 Ω
Voltage rating:	600 Volts RMS
Bandwidth	
HD LCC:	Up to 3 GHz
HD 1.0/2.3:	Up to 1.0 GHz
Straight-through LCC:	Up to 3 GHz
Straight-through 1.0/2.3:	Up to 1.0 GHz
AES:	Up to 500 MHz
Contact resistance:	.030 Ω max change post environmental
Insulation resistance:	200 MΩ min change

MECHANICAL

Mechanical durability:	10,000 cycles min (Front port: LCP) 500 cycles min (Back port: LCC)
Center contact retention:	6 lbs min
SHDC jack panel retention:	20 lbs min
Patch cord cable bend and twist:	500 cycles min

ENVIRONMENTAL

Thermal shock:	-40° C to 65° C, operating; -55° C to 85° C, non-operating
Moisture resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (salt spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent resistance:	MIL-STD-202 Method 215

FINISH

Sheet metal panel:	.060 CRS with protective black finish
Jack plastic housing:	30% Glass Filled Valox
Nickel coax housings:	Tarnish-resistant electroless nickel plating
Springs:	Beryllium copper with 50 millionths inch gold plating
Center conductors:	50 millionths inch gold plating

Video Patching Systems

ProPatch® Miniature (PPM) Series

Ordering Information

Description			Catalog Number
Super High-Density Coax Jacks			
LCC	Normalling	AES and Analog Video	SHDC-LCC
		High-Performance, HD	SHDC-LCC-HP
	Straight-Through	High-Performance, HD	SHDC-LCC-NN
1.0/2.3 Connectors	Normalling	AES and Analog Video	SHDC-1023
		High-Performance	SHDC-1023-HP
	Straight-Through	High-Performance	SHDC-1023-NN
LCP High-Performance Patch Cords			
2 feet			BK2VXM-LCP-LCP
3 feet			BK3VXM-LCP-LCP
4 feet			BK4VXM-LCP-LCP
6 feet			BK6VXM-LCP-LCP
Looping plug; LCP .48" Centers			LP-SHDC-480

	Catalog Number			
	Cable Type (or equivalent to)			
Description	**1505, 9259 9100, VPM2000**	**1855 VDM230 VDM250**	**0.6/2.8 Image360 SDV-25**	**179DT**
LCC Connectors				
1 each	LCC-1-BE	LCC-13-BE	LCC-26-BE	LCC-31-BE
Bulk (100 pack)	LCC-1B-BE	LCC-13B-BE	LCC-26B-BE	LCC-31B-BE
Crimp Tools				
Features Ergonomic Handle for ADC Die Sets	WT-2			
Features Long Ergonomic Handle for ADC Die Sets	WT-3			
Crimp Die Sets	WD-1	WD-2	WD-3	WD-2
	WD-2		WD-4	
	WD-3			
	WD-5			
Manual Stripper Tool Includes One Stripper Replacement Cassette	STC-12B	STC-13B	STC-13B	STC-13B
Manual Stripper Replacement Cassette	CCS-BLK			
Automatic Cable Stripper Tool	BNC-S1			
Cutter Head For Automatic Cable Stripper Tool	BNC-H2	BNC-H5	BNC-H5	BNC-H5
Insertion/Withdrawl Tool	LCA-400004			
Replacement Tips For Insertion/Withdrawal Tool (12-Pack)	LCA-400005-12			
LCC Tester	LCA-414001			

LCP Patch Cords

LCP Looping Plug

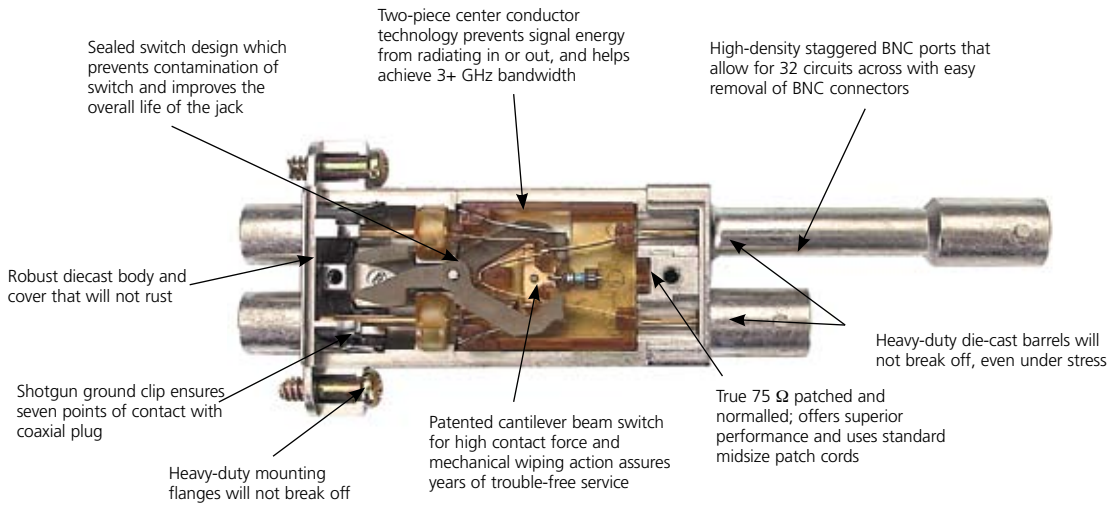
Insertion/Withdrawal Tool

LCC Connector

Video Patching Systems
Jacks

WECO HD Midsize Video Jacks

Midsize video jacks have several advantages over standard size jacks in performance and size. All standard size video jacks observing WECO standards are, by definition, not 75 Ω in the patched state (with the exception of ADC's SVJ-2 standard size Super Video Jack). The physical relationship of the center conductor diameter and the coaxial port diameter creates an impedance violation that causes the video impedance to drop to 58 Ω in the patched state. In midsize video jacks, the physical relationship has been optimized, providing a constant impedance of 75 Ω in either the normalled-through mode or the patched mode. This impedance advantage can make a considerable difference in the elimination of bit errors in digital signals especially if the circuit is routed through several patches. The midsize offers 33 percent higher density than standard size for 2x32 configurations, which match typical router decades.



MVJ-3 Midsize Video Jack Interior View

Outstanding Performance Features

ADC video jacks feature precision geometric-molded insulators for true 75 Ω performance. Closed-entry center contacts are designed to resist damage from damaged plugs or test probes.

Video Patching Systems
Jacks

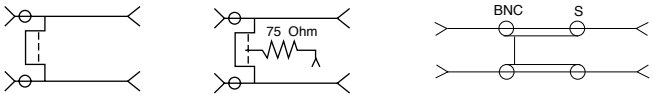
WECO HD Midsize Video Jack MVJ-3

The MVJ-3 midsize to BNC self-normalling video jack is performance matched for data rates up to and including HDTV in the full uncompressed 1.485 and 3 Gbps rates. This premium jack includes a host of outstanding features highlighted in the interior view shown on the previous page.

Features

- 3.0+ GHz bandwidth
- Sealed switch
- 75 Ω performance
- RFI shielding
- 2x32 mounting in one rack space
- Unique captive mounting screws
- Meets MIL-STD-202F for environmental and mechanical reliability

MVJ-3 Terminated
MVJ-3T Non-terminated
MVJ-3NN Non-normalled,
non-terminated



MVJ-3 MVJ-3T MVJ-3NN

HD Midsize Video Jack

WECO HD Midsize Straight-Through Video Jacks

For applications requiring independent ground such as tie line panels, the new straight-through CJ3014N and CJ4014N are the logical choice. These jacks have a rated bandwidth up to 2.4 GHz for analog, serial digital, and HDTV video applications. For applications requiring self-terminating jacks, the CJ3014N-75 and the CJ4014N-75 are available.

The short body CJ3014N/3014N-75 and long body CJ4014N/4014-N75 are designed to be mounted in 32-across configurations. The jacks slide into a patented insulated holder with a dovetail joint, which provides outstanding durability and electronic isolation from adjacent jacks. The short and long bodies allow a staggered mounting pattern to provide access to the BNC connectors. A BNC insertion tool such as the BT2000 is recommended for BNC installation.

CJ3014N-75/CJ4014N-75 Terminated

A patented "dovetail" mounting device provides electrical isolation and outstanding durability as compared to tab-and-barrel mounting systems.

CJ3014N/CJ4014N Non-terminated

Jacks shown partially assembled to reveal the dovetail joint.

Video Patching Systems
Jacks

MVJ-3
WECO HD Midsize Video Jack Specifications

The MVJ-3 Family is rated to handle digital video data rates up to and including uncompressed HDTV SMPTE 292M 1.485 Gbps and SMPTE 424M 3 Gbps.

ELECTRICAL

Rated bandwidth:	1 MHz to 3 GHz
Return loss:	Better than -17 dB; 1 MHz to 3 GHz
Characteristic impedance:	75 Ω
Insertion loss:	0.3 dB Loss to 3 GHz
Center conductor	
Diameter:	0.048 (.12cm)
Contact resistance:	0.01 W maximum change
Termination resistor:	75 Ω, MVJ-3T only

MECHANICAL

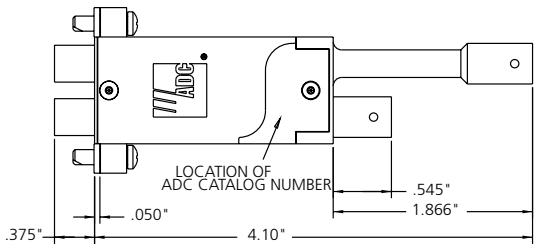
Mechanical shock:	Per MIL-STD-202, Method 213
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	7 lbs (3.17 Kg) maximum
Withdrawal force:	1 lb (.452 Kg) minimum
Life cycles:	20,000

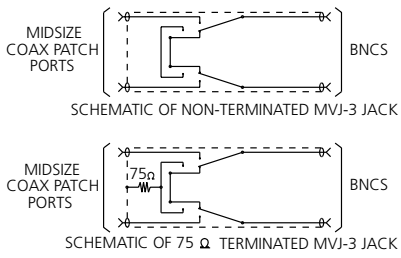
MATERIAL

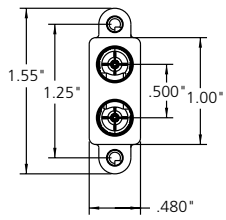
Body and cover:	Zinc alloy per ASTM B86
Front and rear center conductors:	Beryllium copper per ASTM B196
Insulators:	Unreinforced polyetherimide resin rated UL94-VO for flammability
Switching springs:	Beryllium copper per ASTM B196

ENVIRONMENTAL

Operating temperature:	-40° C to 65° C
Storage temperature:	-40° C to 65° C
Thermal shock:	Per MIL-STD-202, Method 107
Operating humidity:	0% to 95%, non-condensing
Storage humidity:	0% to 95%, non-condensing
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106
Dust resistance:	Per MIL-STD-202, Method 110







MVJ-3 Midsize Video Jack

Video Patching Systems
Jacks

WECO HD Midsize Straight-Through Video Jack Specifications

The CJ midsize jacks are rated to handle digital video data rates up to and including uncompressed HDTV SMPTE 292 M 1.485 Gbps. They are also rated for L-Band and S-Band use.

ELECTRICAL

Characteristic impedance:	75 Ω nominal
Return loss:	> 19 dB; 300 Khz to 2.4 GHz
Contact resistance:	10 mΩ typical
Termination resistance (3014N-75/4014N-75):	75 Ω commercial, 1/8 watt 5%

MECHANICAL

Mechanical shock:	Per MIL-STD-202, Method 213
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	7 lbs max
Withdrawal force:	1.5 lbs min

ENVIRONMENTAL

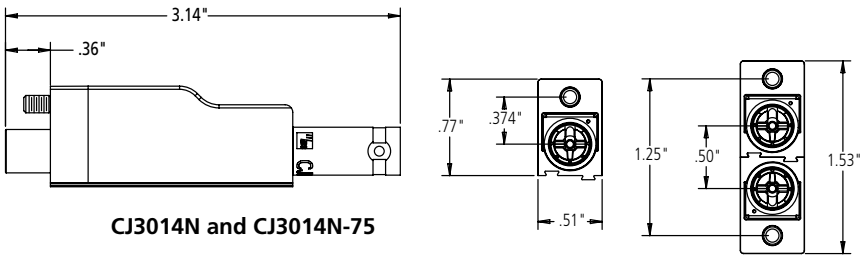
Operating temp:	-40° C to 65° C
Storage temp:	-55° C to 85° C
Thermal Shock:	Per MIL-STD-202, Method 107
Humidity:	0% to 95% non-condensing, operating and non-operating
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106

MATERIAL

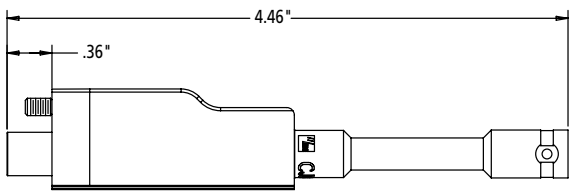
Jack sleeve and frame: per QQ-N-290	CDA 360 brass rod per ASTM B16 with electro-deposit nickel plating
Center conductors: per MIL-G-45204	Phosphor bronze per ASTM B139 with electro-deposited gold plating
Insulators:	TFE-Fluorocarbon per ASTM D1710

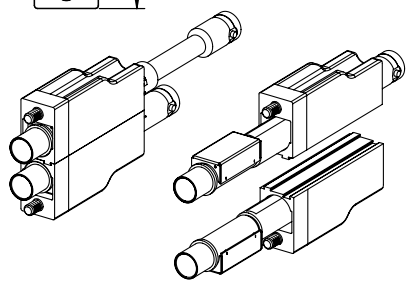
OTHER

Interface dimensions:	Outside diameter of mating plugs must be .298" (.75 cm) with pin diameter of .048" (.12 cm)
Mounting details:	Jacks supplied with a 6-32 UNC-2A 5/16" Phillips head screws (zinc chromate plated)



CJ3014N and CJ3014N-75





CJ4014N and CJ4014N-75

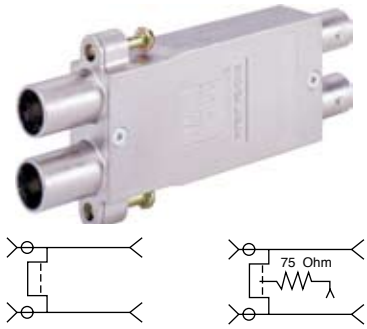
Video Patching Systems
Jacks

WECO HD Standard Size Super Video Jacks (SVJ)

The SVJ-2 standard size to BNC self-normalling Super Video Jack family features performance matched for data rates up to and including HDTV in the full uncompressed 1.485 and 3 Gbits/second rate. The SVJ-2 combines the unique features of:

- 2.4 GHz bandwidth for the demanding HD data rates
- Sealed switch prevents internal contamination
- True 75 Ω performance for a zero bit-error rate
- RFI shielding prevents ingress/egress
- 2x26 or 2x24 mounting in one rack space
- Unique captive mounting screws

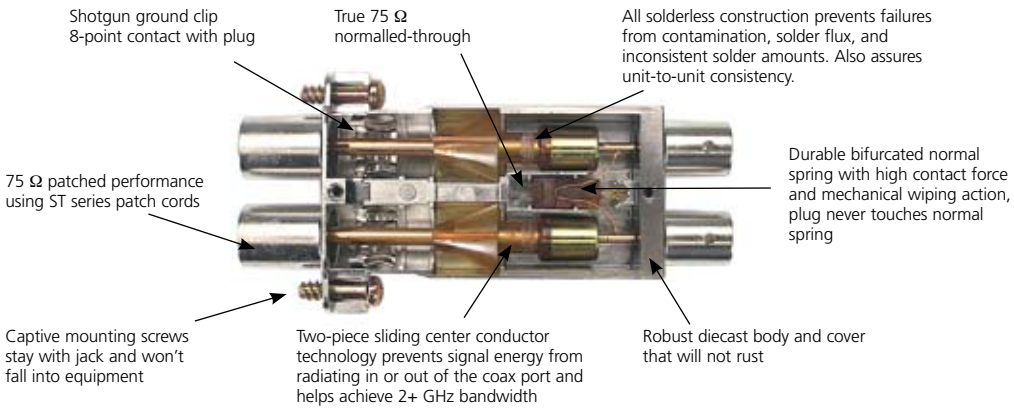
The SVJ-2 family is designed for use in high data rate applications including uncompressed HDTV, D1 digital video and all lower data rate video transmission methods.



Standard Size Super Video Jack
(SVJ-2/SVJ-2T)

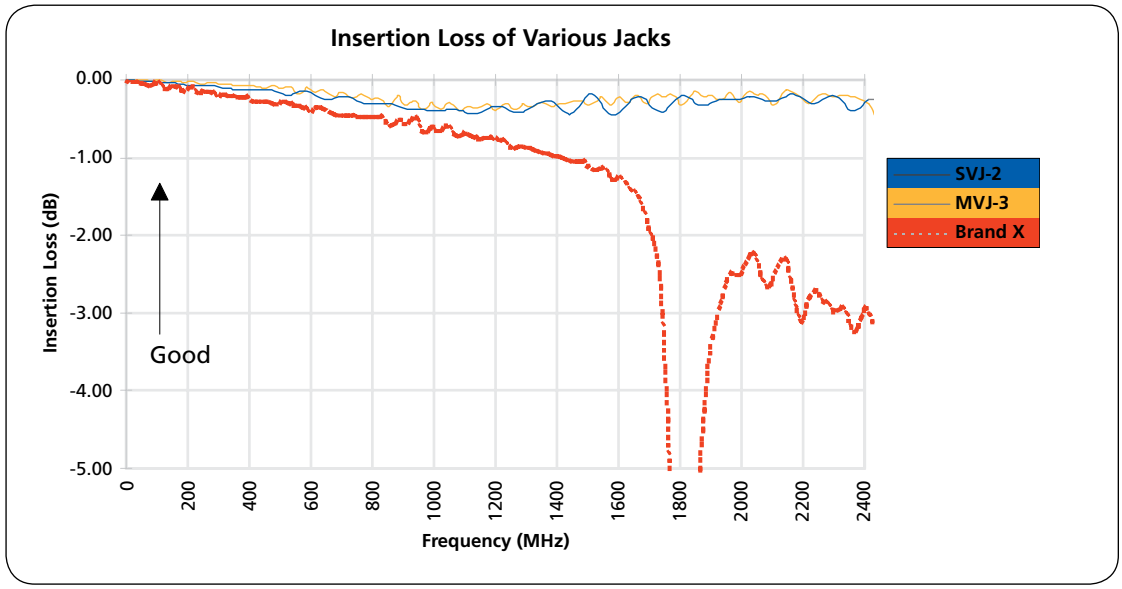
Features

- True 75 Ω for excellent digital performance when normalled or patched with ADC ST series patch cords
- Gold-plated components assure signal quality and tarnish resistance, minimum 50µ inch
- Sealed switch prevents external contamination
- All-solderless construction eliminates solder-related failures
- Long-beam bifurcated springs provide firm contact and prevent spring fatigue
- Closed-entry BNC center conductor prevents damage and provides reliable contact
- Two-piece center conductor prevents RFI radiation leakage
- Shotgun ground clip contacts plug at multiple points
- Tough diecast body will not rust or flex
- Captive mounting screws will not fall out
- Precision-tooled parts for consistent quality
- Meet MIL-STD-202F for environmental and mechanical reliability
- Patch plug never touches normal switch, dramatically increasing reliability

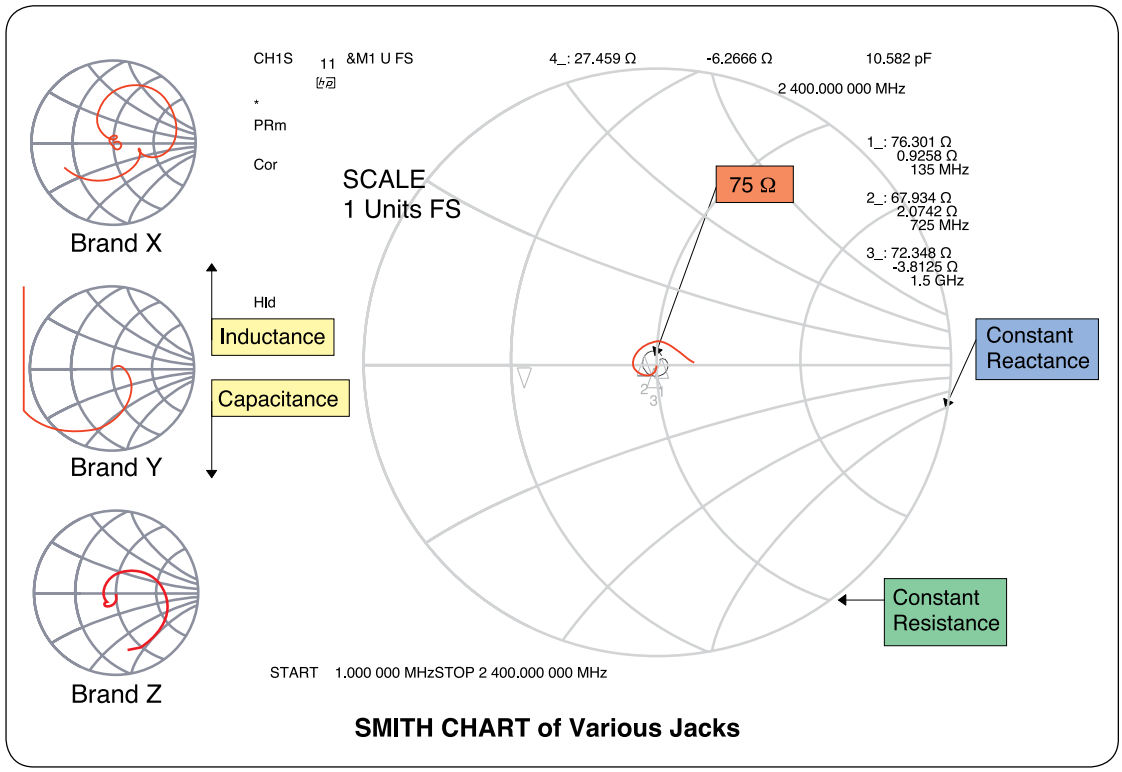


SVJ-2T
Standard Size Super Video Jack
(Interior View)

Insertion and SMITH Chart



Insertion loss for ADC's Super Video Jacks stays less than .5 dB to 2.4 GHz.



ADC's Super Video Jacks maintain 75 Ω impedance throughout the band.
Competitive jacks spiral out of control.

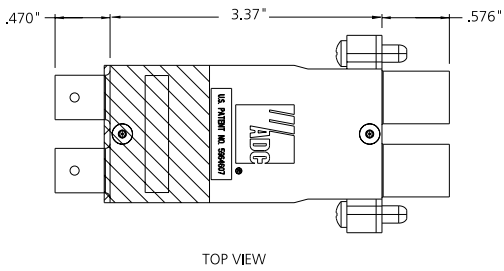
Video Patching Systems

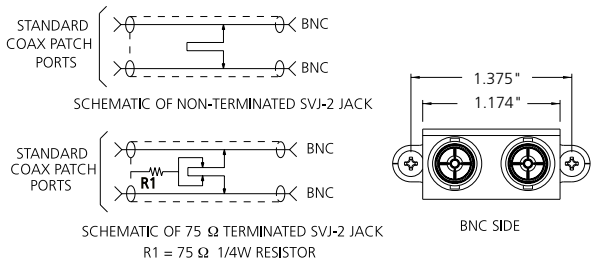
Jacks

SVJ-2
Standard Size Super Video Jack Specifications

The SVJ-2 family is rated to handle digital video data rates up to and including uncompressed HDTV SMPTE 292M 1.485 Gbps and SMPTE 424M 3 Gbps.

ELECTRICAL	
Rated bandwidth:	2.4 GHz
Return loss:	Better than -20 dB to 2.4 GHz
Characteristic impedance:	75 Ω
Insertion loss:	<.5 dB Loss to 2.4 GHz
Center conductor diameter:	Accepts .09 center conductor
Contact resistance:	Less than 20 mΩ
Termination resistor:	75 Ω, ± 1%
MECHANICAL	
Mechanical shock:	Per MIL-STD-202, Method 213 test condition G
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	12 lbs max
Withdrawal force:	3 lbs min
Life cycles:	20,000 insertion/withdrawal cycles min
MATERIAL	
Body and cover:	Zinc diecast per ASTM B86
Front and rear	
Center conductors:	Phosphor bronze per ASTM B139
Insulators:	Polyethermide resin rated UL 94V-0
Switching springs:	Beryllium copper per ASTM B196
ENVIRONMENTAL	
Temperature	
Operating:	-40° C to 65° C
Storage:	-55° C to 85° C
Thermal shock:	Per MIL-STD-202, Method 107
Humidity	
Operating:	0% to 95%, non-condensing
Storage:	0% to 95%, non-condensing
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106
Dust resistance:	Per MIL-STD-202, Method 110A



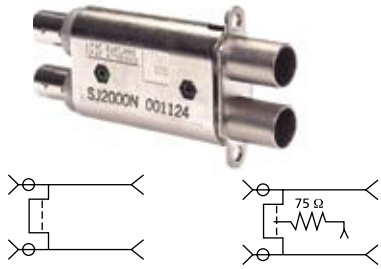


SVJ-2 Standard Size Super Video Jack

Video Patching Systems
Jacks

WECO Standard Size Analog/SD Video Jacks

For analog and serial digital video applications at 270/360 Mbits, ADC's venerable SJ2000 is a logical choice. With a frequency response to 750 MHz, the SJ2000 has proven improved reliability for systems that do not require the advanced performance of ADC's super jacks.



Standard Size Video Jack
(SJ2000/SJ2000N-75)

WECO Standard Size Analog/SD Video Jacks

The SJ2000 family is rated to handle analog and digital video data rates up to 360 Mbps

ELECTRICAL

Insertion Loss:	0.4 dB DC to 200 MHz
Characteristic Impedance:	75 Ω nominal
Return Loss:	Better than 15 dB 1 MHz to 600 MHz relative to 75 Ω for .090" (.23 cm) diameter center conductor
Contact Resistance:	0.030 Ω maximum change post environment
Termination Resistor Values:	75 Ω commercial, 1/8 watt, 5%

MECHANICAL

Mechanical Shock:	Per MIL-STD-202, Method 213, Test Condition I
Vibration:	Per MIL-STD-202, Method 201
Insertion Force:	7 lbs (3.17 kg) minimum
Withdrawal Force:	1 lb (0.452 kg) minimum
Life:	10,000 insertion/withdrawal cycles (single port) minimum

ENVIRONMENTAL

Operating Temperature:	-40° C to +65° C operating
Non-operating Temperature:	-55° C to +85° C non-operating
Thermal Shock:	Per MIL-STD-202, Method 107
Humidity:	0% to 95% non-condensing, operating and non-operating
Salt Spray:	Per MIL-STD-202, Method 101
Moisture Resistance:	Per MIL-STD-202, Method 106

MATERIAL

Outer Shell, Jack Bodies and Rear Connectors:	Zinc die-casting with electro-deposit gold plating per MIL-G-45204 or electro-deposited nickel plating per QQ-N-290
Center Conductors:	0.090" (.23 cm) Beryllium copper per QQ-C-533 with electro-deposited gold plating per MIL-G45204 on contact areas only
Insulators:	Unreinforced polyethermide resin rated UL94V-0 for flammability
Springs:	Beryllium copper per QQ-C-553 with electro-deposited gold plating per MIL-G-45204

INTERFACE DIMENSIONS

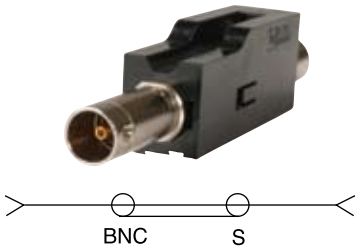
Standard Size:	Outside diameter of mating plugs must be .375" (.95 cm) with pin diameter of .090" or (.23 cm) or .070 (.18 cm)

MOUNTING INFORMATION: All jacks are supplied with two 6-32, round head, 5/16" Phillips head screws

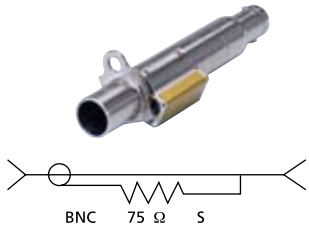
WECO Standard Size Straight-Through Video Jacks

For applications requiring independent ground such as tie line panels, the straight-through CJ2014N and the self-terminating CJ2020N-75 jacks are the logical choice. These jacks mount on standard .625" centers and have a rated bandwidth up to 2.4 GHz for analog HDTV, L-Band and S-Band applications.

NOTE: The single terminating jacks cannot be installed directly adjacent to switching jacks due to interference with the terminating resistor housing. Leave one empty space between the CJ2020N-75 and switching jacks.



Straight-Through Standard Size Video Jack
(CJ2014N)



Straight-Through Standard Size Video Jack with 75 Ω Termination
(CJ2020N-75)

Video Patching Systems
Jacks

WECO Standard Size Straight-Through Video Jack Specifications
CJ2014N and CJ2020N-75 (terminated)

The CJ standard size jacks are rated to handle digital video data rates up to and including uncompressed HDTV 292M 1.485 Gpbs and SMPTE 424M 3 Gbps. They are also rated for L-Band and S-Band use.

ELECTRICAL

Characteristic impedance:	62.5 Ω nominal
Return loss:	> -20 dB; 1 MHz to 2 GHz
Contact resistance:	0.030 Ω max change post environment

MECHANICAL

Mechanical shock:	Per MIL-STD-202, Method 213
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	7 lbs (3.17 kg) min
Withdrawal force:	1.5 lbs (0.675 kg) min
Life:	10,000 insertion/withdrawal cycles min

ENVIRONMENTAL

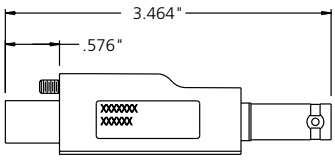
Operating temperature:	-40° C to +65° C
Non-operating temperature:	-55° C to +85° C non-operating
Thermal shock:	Per MIL-STD-202, Method 107
Humidity:	0% to 95% non-condensing, operating and non-operating
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106

MATERIAL

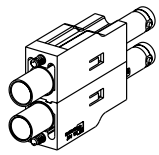
Jack sleeve and frame:	Brass per ASTM B16 with electro-deposited nickel plating per QQ-N-290 or electro-deposited gold plating per MIL-G-45204
Center conductors .090" (.23 cm):	Beryllium copper per QQ-C-533 with electro-deposited gold plating per MIL-G-45204 on contact areas only
Outer conductor contacts:	Phosphor bronze QQ-B-746 with electro-deposited gold plating per MIL-G-45204 or electro-deposited nickel plating per QQ-N-290
Insulators:	Rated UL 94V-0 for flammability
Crimping sleeves:	Brass per ASTM B16 with tin plating per MIL-T-10727

OTHER

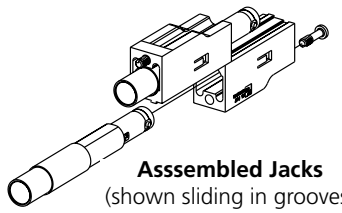
Interface dimensions:	Outer diameter of mating plugs must be .375" (.95 cm) with pin diameter of .090" (.23 cm) or .070" (.18 cm)
Mounting information:	All jacks are supplied with 6-32, 5/16" Phillips head screws



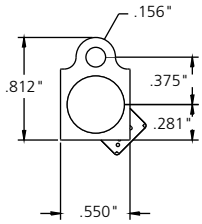
CJ2014N



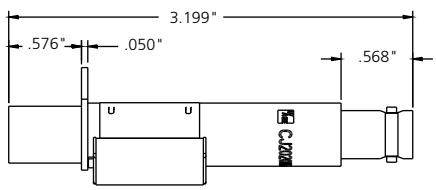
Asssembled Jacks
(shown assembled)



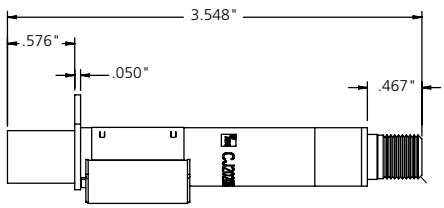
Asssembled Jacks
(shown sliding in grooves)



CJ2020-N75
CJ2020-N75FF



Dimensions for CJ2020N-75 and CJ2011N
(CJ2011N has no termination can)



Dimensions for CJ2020-N75FF

Video Patching Systems
Jacks

MUSA Standard Video Jacks

ADC is the first company worldwide to offer both MUSA standard and WECO standard mid-sized and standard-sized coaxial video jacks.We offer a complete portfolio of MUSA standard panels and accessories including jacks, U-links, accessories, panels and patch cords. The new line of 75 Ω HDTV-ready coaxial jacks and accessories offers superior electrical and mechanical performance as well as easier mounting options compared with current industry products.

Jack Features

- HDTV Super Video Jacks rated to 2.3+ GHz
- Return loss of -17db at 2.3 GHz
- Insertion loss of -.07db to 2.3 GHz
- Jacks rated to 10,000 insertion/withdrawl cycles
- Patented dovetail mounting system provides secure and easy jack replacement
- Exclusive captivated mounting screw
- Molded jack holder provides outstanding durability and isolation between adjacent jacks
- Compatible with BPO MUSA standard products

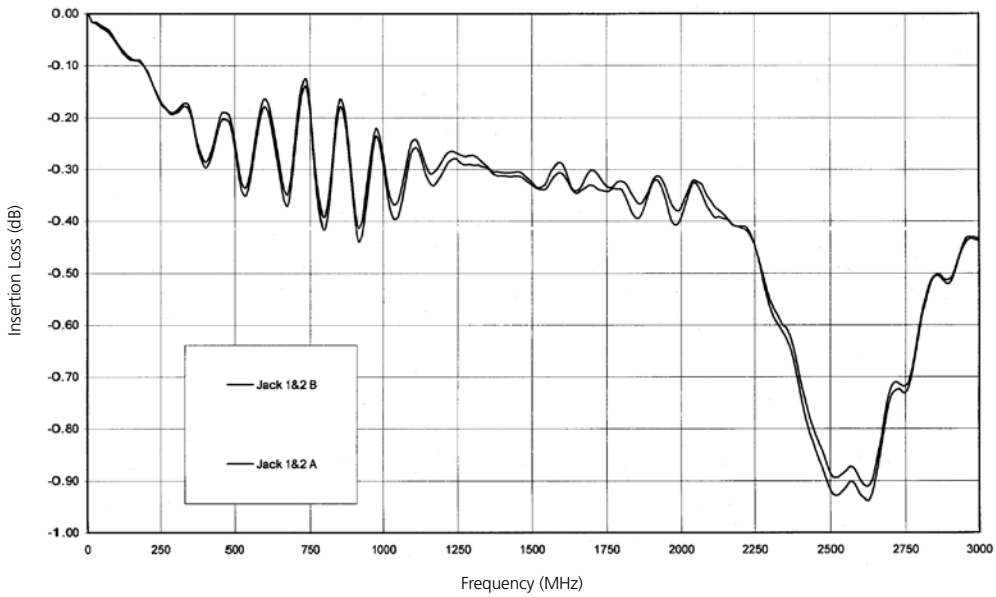
MUSA U-Link
(UL-SM1625)

SMJ-2100N Jack

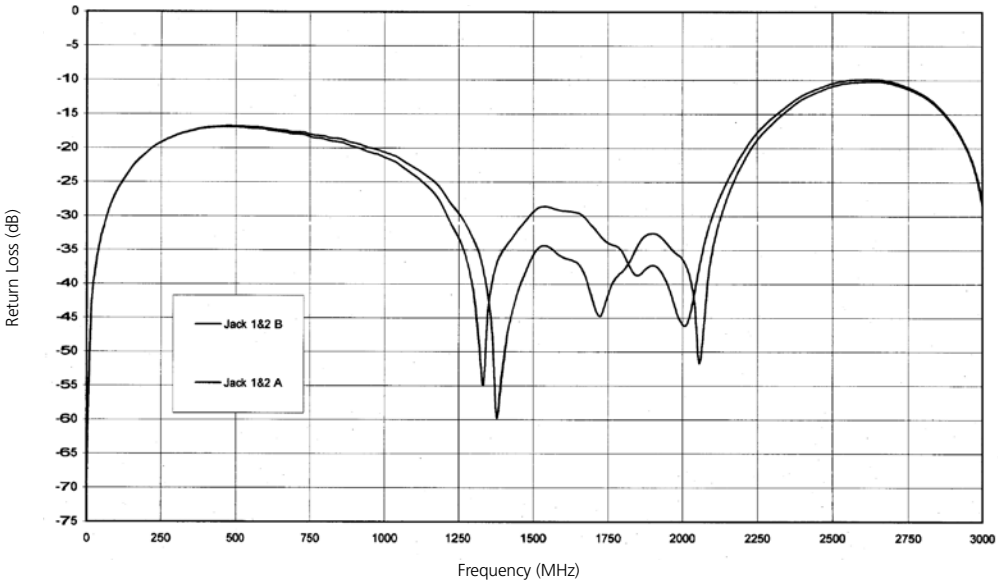
U-Link Features

- Ergonomically designed handle makes insertion/withdrawal easier, hole for pull chain
- Solderless construction—Weee and Rohs compliant
- High-performance U-Link matched for uncompressed HDTV signals (1.485 Gbps)
- Precision-molded insulators for true impedance match and greater unit-to-unit consistency compared to machined plastic
- Unique closed-entry center conductor prevents damage and intermitance from misaligned male pins
- One-piece gold-plated center conductor
- Robust diecast body with insulated molded outer shell
- Transparent icon allows designation label underneath
- Plug-in color coded circuit icon available

MUSA Standard Video Jacks Insertion and Return Loss



Insertion Loss
MUSA Video Connectors (SMJ-2100N) with Looping Plug



Return Loss
MUSA Video Connectors (SMJ-2100N) with Looping Plug

Video Patching Systems
Jacks

MUSA Straight-Through Video Jack Specifications
SMJ-2100N

The SMJ family is rated to handle analog and digital video data rates up to and including HDTV SMPTE 242M 1.485 Gbps and SMPTE 424M 3 Gbps. They are also rated for L-Band and S-Band use.

ELECTRICAL

Characteristic impedance:	75 Ω nominal
Return loss:	> 17 dB; 300 KHz to 2.4 GHz
Contact resistance:	10 mΩ typical

MECHANICAL

Mechanical shock:	Per MIL-STD-202, Method 213
Vibration:	Per MIL-STD-202, Method 201
Insertion force:	7 lbs maximum
Withdrawal force:	1.5 lbs minimum

ENVIRONMENTAL

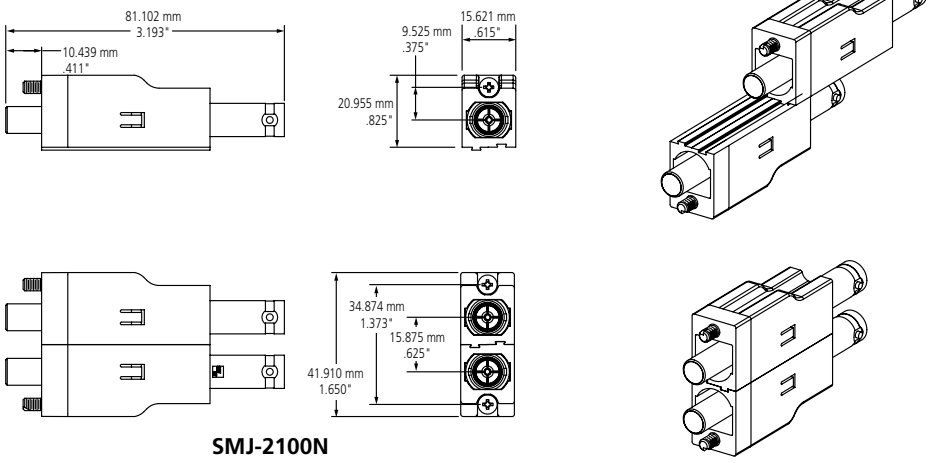
Operating temp:	-40° C to 65° C
Storage temp:	-55° C to 85° C
Thermal shock:	Per MIL-STD-202, Method 107
Humidity:	0% to 95% non-condensing, operating and non-operating
Salt spray:	Per MIL-STD-202, Method 101
Moisture resistance:	Per MIL-STD-202, Method 106

MATERIAL

Jack sleeve and frame:	CDA 360 brass rod per ASTM B16 with electro-deposit nickel plating per QQ-N-290
Center conductors:	Phosphor bronze per ASTM B139 with electro-deposited gold plating per MIL-G-45204
Insulators:	Unreinforced polyetherimide resin rated UL94-V0 for flammability

OTHER

Interface dimensions:	Outside diameter of mating plugs must be .298" (.75 cm) with pin diameter of .048" (.12 cm)
Mounting details:	Jacks supplied with a 6-32 UNC-2A 5/16" Phillips head screws (zinc chromate plated)



SMJ-2100N

Video Patching Systems

Jacks and Accessories

Ordering Information

Description	Catalog Number
Midsize Video Jacks	
Dual self-normalling video jack, non-terminated, HD	MVJ-3
Dual self-normalling video jack, 75 Ω terminated, HD	MVJ-3T
Dual non-normalled video jack, non-terminated, HD	MVJ-3NN
Single straight-through video Jack, short body, non-terminated, HD	CJ3014N
Single straight-through video Jack, short body, 75 Ω terminated, HD	CJ3014N-75
Single straight-through video jack, long body, non-terminated, HD	CJ4014N
Single straight-through, video Jack, long body, 75 Ω terminated, HD	CJ4014N-75
Standard Size Super Video Jacks	
Dual self-normalling super video jack, non-terminated, HD	SVJ-2-X
Dual self-normalling super video jack, 75 Ω terminated, HD	SVJ-2T-X
Standard Size Video Jacks	
Single straight-through video jack, non-terminated, HD	CJ2014N
Single straight-through video jack, terminated, HD	CJ2020N-75
Single straight-through video jack, terminated with F connector, HD	CJ2020N-75F
Dual self-normalling video jack, non-terminated, analog/SD	SJ2000N
Dual self-normalling video jack, 75 Ω terminated, analog/SD	SJ2000N-75
MUSA Standard Video Jacks	
Single video jack, MUSA standard, HD	SMJ-2100N
Conversion Plugs and Adapters	
Standard size plug to BNC adapter	CP1051N
Standard size plug to BNC adapter, gold	CP1051G
Midsize plug to BNC adapter, short body	MBNC-3
Midsize plug to BNC adapter, long body	MBNC-3L
Standard size receptacle to midsize receptacle adapter	CAXADPT-1
Midsize plug to standard size receptacle adapter	CAXADPT-2
Standard size plug to midsize receptacle adapter	CAXADPT-3
Coax adapter MUSA plug to BNC	CAXADPT-MU/BNC
Coax adapter MUSA plug to standard receptacle	CAXADPT-MU/CPSTD
Coax adapter MUSA plug to midsized receptacle	CAXADPT-MU/CPMID

Standard Size
Conversion Plug
(CP1051N)

Midsize Plug to BNC Adapter
(MBNC-3)

Standard to Midsize Conversion Adapter
(CAXADPT-1)

Midsize to Standard Conversion Plug
(CAXADPT-2)

Standard to Midsize Conversion Plug
(CAXADPT-3)

MUSA to BNC Adapter
(CAXADPT-MU/BNC)

MUSA to Standard
Size Adapter
(CAXADPT-MU/CPSTD)

MUSA to Midsize Adapter
(CAXADPT-MU/CPMID)

Video Patching Systems

Jacks and Accessories

Humbucker

Common mode hum caused by differences in ground potential is often found in long video cables, incoming and outgoing lines, and separate power distribution systems. The ADC Humbucker eliminates 99.6 percent of a 10 Volt p-p 50/60 Hz ground-induced hum in a 200-foot (61 m) RG59 coaxial cable run. The actual amount of hum reduction depends on cable length, cable type, ground loop potential, and ground loop frequency.

Humbucker
(HUM-1)

Ordering Information

Description	Catalog Number
Humbucker Humbucking Coil	HUM-1
Coaxial Patch Plugs	
Standard size solder plug for 734	PGS-100016
Standard size solder plug for RG59	CP1041N
Standard size solder plug for RG59 gold	CP1041G
Midsize solder plug for RG59	CP1540N
Midsize crimp plug for RG59	CP1540N-CRIMP
Midsize crimp plug for RG59, gold	CP1540G-CRIMP
Midsize solder plug for 735	PGS-100018
Standard size HD crimp plug for Belden 1505F	CP-1045
Midsize HD crimp plug for Belden 1505F	CP-1545
MUSA HD crimp plug and boot for Belden 1505F, bulk 50 units	CP-1-MU-B50
Termination and Looping Plugs	
Standard size 75 Ω termination plug, nickel	CPSTD-TP2
Midsize 75 Ω termination plug, nickel	CPMID-TP2
MUSA 75 Ω termination plug	MUSA-TP2
Standard size HD looping plug, nickel	LP-S1625
Midsize HD looping plug, nickel	LP-M1500
MUSA HD-U-link, nickel	UL-SM1625
Looping plug colored identification icon, 25 pack	ADCICB*XX**
Circuit Guard Plugs, sold in bags of 25	
Standard size	CJP-S-*XX*
Midsize	CJP-M-*XX*

Midsize Plug
(CP1540N)

WECO Looping Plugs
(LP-S1625/LP-M1500)

MUSA U-Link
(UL-SM1625)

*** *XX* Icon Colors:**

01 Office White	06 Gray	11 Brown
02 Black	07 Snow White	12 Clear
03 Red	08 Orange	13 Putty White
04 Green	09 Yellow	
05 Blue	10 Purple	

Video Patching Systems

ProPatch® Integrated (PPI) Series

Broadcast and Entertainment Products

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ProPatch PPI Series Panels are the ideal solution when you need a rugged, full-featured panel that will stand up to the most demanding professional applications. These tough, attractive panels feature a rugged epoxy powder-coated steel weldment chassis with a durable molded ABS jack insert. The panels feature rear silk screening for port identification and an adjustable rear cable support bar for superior strain relief, and ADC's exclusive snap-over designation system that prevents cards and windows from coming loose from the panel as is common with other systems. The durable steel frame ensures against bent, cracked or broken rack ears, and the molded ABS inserts prevent stripped screws and cracked inserts common with phenolic panel inserts. The molded inserts are also available in a variety of colors to help segregate signal types such as AES audio, SDI video and HD video within a common facility. Panels are available in black or gray. PPI series panels are covered by an industry-exclusive 15 year* warranty against defects.
*SVJ, MVJ, CJ, CJMID, and SMJ jacks

Features

- Tough professional construction
- Welded steel chassis with high-impact ABS plastic-molded inserts
- Adjustable steel strain relief cable bar with holes for cable ties
- Highest quality, widest bandwidth, longest lasting jacks available. True 75 Ω impedance
- Molded jack inserts come in a variety of colors and are much more durable than phenolic inserts; screws don't strip out
- Snap-on designation windows for labeling jacks
- All jack styles available
- 15 year waranty
- ProPatch PPI series unloaded video panels come in 1 RU and 2 RU models. They feature a tough steel weldment chassis with molded ABS jack insert and a strong, adjustable steel cable support bar with holes for cable ties.
- Panels are available for standard size jacks in 2x24, 2x26, and 3x26 arrays. For midsize jacks, panels are available in 2x32 and 3x32 arrays. When ordering jacks, alternate short and long jacks to ease cabling.

Colored molded jack inserts available as an option

1 RU Midsize 2x32 Panel

1.5 RU Midsize 2x32 Panel

2 RU Midsize 2x32 Panel
(rear view)

Video Patching Systems

ProPatch® Integrated (PPI) Series

Ordering Information

Description					Catalog Number		
		Jack Type	Color		1 RU (1.75")	1.5 RU (2.63")	2 RU (3.50")
Midsize	Normalling Jacks	MVJ-3	Gray	2x32	PPI1232-MVJ	PPI15232-MVJ	PPI2232-MVJ
			Black	2x32	PPI1232-MVJ-BK	PPI15232-MVJ-BK	PPI2232-MVJ-BK
		MVJ-3Tx Terminated	Gray	2x32	PPI1232-MVJT	PPI15232-MVJT	PPI2232-MVJT
			Black	2x32	PPI1232-MVJT-BK	PPI15232-MVJT-BK	PPI2232-MVJT-BK
	Straight-Through Jacks	CJM	Gray	2x32	PPI1232-CJM	PPI15232-CJM	PPI2232-CJM
			Black	2x32	PPI1232-CJM-BK	PPI15232-CJM-BK	PPI2232-CJM-BK
		CJMT Terminated	Gray	2x32	PPI1232-CJMT	PPI15232-CJMT	PPI2232-CJMT
			Black	2x32	PPI1232-CJMT-BK	PPI15232-CJMT-BK	PPI2232-CJMT-BK
	Monitoring Panels	MVJ-3	Black	3x32	-	-	PPI2332-MVJ-MON-BK
		MVJ-3T Terminated	Black	3x32	-	-	PPI2332-MVJT-MONT-BK
	Empty	None	Gray	2x32	PPI1232	PPI15232	PPI2232
			Black	2x32	PPI1232-BK	PPI15232-BK	PPI2232-BK
Standard Size	Normalling Jacks	SVJ-2	Gray	2x24	PPI1224-SVJ	PPI15224-SVJ	PPI2224-SVJ
				2x26	PPI1226-SVJ	PPI15226-SVJ	PPI2226-SVJ
			Black	2x24	PPI1224-SVJ-BK	PPI15224-SVJ-BK	PPI2224-SVJ-BK
				2x26	PPI1226-SVJ-BK	PPI15226-SVJ-BK	PPI2226-SVJ-BK
		SVJ-2T Terminated	Gray	2x24	PPI1224-SVJT	PPI15224-SVJT	PPI2224-SVJT
				2x26	PPI1226-SVJT	PPI15226-SVJT	PPI2226-SVJT
			Black	2x24	PPI1224-SVJT-BK	PPI15224-SVJT-BK	PPI2224-SVJT-BK
				2x26	PPI1226-SVJT-BK	PPI15226-SVJT-BK	PPI2226-SVJT-BK
	Straight-Through Jacks	CJ2014N	Gray	2x24	PPI1224-CJ48	PPI15224-CJ48	PPI2224-CJ48
				2x26	PPI1226-CJ52	PPI15226-CJ52	PPI2226-CJ52
			Black	2x24	PPI1224-CJ48-BK	PPI15224-CJ48-BK	PPI2224-CJ48-BK
				2x26	PPI1226-CJ52-BK	PPI15226-CJ52-BK	PPI2226-CJ52-BK
		CJ2020N-75 Terminated	Gray	2x24	PPI1224-CJ48T	PPI15224-CJ48T	PPI2224-CJ48T
				2x26	PPI1226-CJ52T	PPI15226-CJ52T	PPI2226-CJ52T
			Black	2x24	PPI1224-CJ48T-BK	PPI15224-CJ48T-BK	PPI2224-CJ48T-BK
				2x26	PPI1226-CJ52T-BK	PPI15226-CJ52T-BK	PPI2226-CJ52T-BK
	Monitoring Panels	SVJ-2	Gray	3x24	-	-	PPI2324-SVJ-MON
				3x26	-	-	PPI2326-SVJ-MON
			Black	3x24	-	-	PPI2324-SVJ-MON-BK
				3x26	-	-	PPI2326-SVJ-MON-BK
		SVJ-2T Terminated	Gray	3x24	-	-	PPI2324-SVJT-MONT
				3x26	-	-	PPI2326-SVJT-MONT
			Black	3x24	-	--	PPI2324-SVJT-MONT-BK
				3x26	-	-	PPI2326-SVJT-MONT-BK

Video Patching Systems

ProPatch® Integrated (PPI) Series

Ordering Information

Description		Jack Type	Color		Catalog Number		
					1 RU (1.75")	1.5 RU (2.63")	2 RU (3.50")
MUSA Standard	Straight-Through Jacks	SMJ-2100	Gray	2x24	PPI1224-SMJ	PPI15224-SMJ	PPI2224-SMJ
				2x26	PPI1226-SMJ	PPI15226-SMJ	PPI2226-SMJ
			Black	2x24	PPI1224-SMJ-BK	PPI15224-SMJ-BK	PPI2224-SMJ-BK
				2x26	PPI1226-SMJ-BK	PPI15226-SMJ-BK	PPI2226-SMJ-BK
Standard Size and MUSA	Empty	None	Gray	2x24	PPI1224	PPI15224	PPI2224
				2x26	PPI1226	PPI15226	PPI2226
			Black	2x24	PPI1224-BK	PPI15224-BK	PPI2224-BK
				2x26	PPI1226-BK	PPI15226-BK	PPI2226-BK

The information below explains the catalog numbers contained in the charts on this page. Custom configurations are available; please contact ADC.

Catalog Number

PPI _ _ _ _ _ - _ _ _ _ - _ _ _

2 RU Standard Size 2x26 Panel

2 RU Midsize 3x32 Monitoring Panel

Panel Height

1	1 RU
15	1.5 RU
2	2 RU
	Specify

Number of Jack Rows

1	1 row
2	2 rows
3	3 rows

Number of Jacks per Row

24	24 per row standard WECO and MUSA
26	26 per row standard WECO and MUSA
32	32 per row midsize only

Insert Color

Leave Blank	Same as panel color
R	Red*
GN	Green*
BL	Blue*
Y	Yellow*
O	Orange*
V	Violet*
W	White*

* Non-standard

Panel Color

Leave Blank	Gray
BK	Black

Video Jack Type

N	SJ2000N WECO standard size normalling jacks
75N	SJ2000N-75 WECO standard size normalling jacks with 75-Ohm termination
SVJ	SVJ-2 HD WECO standard size normalling jacks
SVJT	SVJ-2T HD WECO standard size normalling jacks with 75-Ohm termination
CJ	CJ-2014N WECO standard size single straight-through jacks
CJT	CJ-2020N-75 WECO standard size single straight-through jacks with 75-Ohm termination
MVJ	MVJ-3 WECO midsize normalling jacks
MVJT	MVJ-3T WECO midsize normalling jacks with 75-Ohm termination
CJM	CJ3014N/CJ4014N WECO midsize single straight-through jacks
CMJT	CJ3014N-75/CJ4014N-75 WECO midsize single straight-through jacks with 75-Ohm termination
SMJ	SMJ-2100 MUSA standard jacks

*For information on this and other custom configurations, please contact ADC.

Video Patching Systems

ProPatch® Economical (PPE) Series

Broadcast and Entertainment Products

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ProPatch PPE Series Panels are designed to offer ADC performance on a modest budget. The tough, attractive panels feature a rugged epoxy powder-coated steel faceplate with a durable molded ABS jack insert. The PPE series panels do not provide any rear silk screening for port identification or cable support bars, but are available with the same jack options as the full-featured PPI series panels. Designation strips are provided with clear slide-in acetate windows, upgradeable to ADC's exclusive snap-over designation system. The durable steel faceplate ensures against bent, cracked or broken rack ears, and the molded ABS inserts prevent stripped screws and cracked inserts common with phenolic panel inserts. PPE panels are covered by a one-year warranty against defects, upgradeable to 15 years (contact ADC for details).

Features

- Steel chassis with high-impact ABS plastic-molded inserts
- Highest quality, widest bandwidth, longest lasting jacks available. True 75 Ω impedance
- Acetate slide-in style designation windows
- Optional snap-over window available
- Available in all jack types
- 1 year warranty, upgradable to 15 years
- ProPatch® PPE Series unloaded video panels come in 1, 2, 3 and 4 RU models. They feature a rugged steel faceplate with molded ABS jack inserts.
- Panels are available for standard size jacks in 2x24, 2x26, and 3x26 arrays. For midsize jacks, panels are available in 2x32 and 3x32 arrays. When ordering jacks, alternate short and long jacks to ease cabling.

1 RU Midsize 2x32 Panel
(rear view)

1 RU Standard Size/MUSA 2x24 Panel

1.5 RU Standard Size/MUSA 2x24 Panel

2 RU Midsize 2x32 Panel

4 RU Midsize 6x32 Panel

Video Patching Systems

ProPatch® Economical (PPE) Series

The information below explains the catalog numbers contained in the charts on this page and the next. Custom configurations are available; please contact ADC.

Catalog Number

PPE ___ ___ ___ - ___ - ___

Panel Height

1	1 RU
15	1.5 RU
2	2 RU
3	3 RU
4	4 RU

Number of Jack Rows

1	1 row
2	2 rows
3	3 rows
4	4 rows
5	5 rows
6	6 rows

Number of Jacks per Row

24	24 per row standard WECO and MUSA
26	26 per row standard WECO and MUSA
32	32 per row midsize only

Panel Color

Leave Blank	Gray
BK	Black

Video Jack Type

N	SJ2000N WECO standard size normalling jacks
75N	SJ2000N-75 WECO standard size normalling jacks with 75-Ohm termination
SVJ	SVJ-2 HD WECO standard size normalling jacks
SVJT	SVJ-2T HD WECO standard size normalling jacks with 75-Ohm termination
CJ	CJ-2014N WECO standard size single straight-through jacks
CJT	CJ-2020N-75 WECO standard size single straight-through jacks with 75-Ohm termination
MVJ	MVJ-3 WECO midsize normalling jacks
MVJT	MVJ-3T WECO midsize normalling jacks with 75-Ohm termination
CJM	CJ3014N/CJ4014N WECO midsize single straight-through jacks
CMJT	CJ3014N-75/CJ4014N-75 WECO midsize single straight-through jacks with 75-Ohm termination
SMJ	SMJ-2100 MUSA standard jacks

Ordering Information

Description					Catalog Number		
		Jack Type	Color		1 RU (1.75")	1.5 RU (2.63")	2 RU (3.50")
Midsize	Normalling Jacks	MVJ-3	Gray	2x32	PPE1232-MVJ	PPE15232-MVJ	PPE2232-MVJ
			Black	2x32	PPE1232-MVJ-BK	PPE15232-MVJ-BK	PPE2232-MVJ-BK
		MVJ-3T Terminated	Gray	2x32	PPE1232-MVJT	PPE15232-MVJT	PPE2232-MVJT
			Black	2x32	PPE1232-MVJT-BK	PPE15232-MVJT-BK	PPE2232-MVJT-BK
	Straight-Through Jacks	CJM	Gray	2x32	PPE1232-CJM	PPE15232-CJM	PPE2232-CJM
			Black	2x32	PPE1232-CJM-BK	PPE15232-CJM-BK	PPE2232-CJM-BK
		CJMT Terminated	Gray	2x32	PPE1232-CJMT	PPE15232-CJMT	PPE2232-CJMT
			Black	2x32	PPE1232-CJMT-BK	PPE15232-CJMT-BK	PPE2232-CJMT-BK
	Monitoring Panels	MVJ-3	Black	3x32	-	-	PPE2332-MVJ-MON-BK
		MVJ-3T Terminated	Black	3x32	-	-	PPE2332-MVJT-MONT-BK
	Empty	None	Gray	2x32	PPE1232	PPE15232	PPE2232
			Black	2x32	PPE1232-BK	PPE15232-BK	PPE2232-BK

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Video Patching Systems

ProPatch® Economical (PPE) Series

Ordering Information

Description					Catalog Number		
		Jack Type	Color		1 RU (1.75")	1.5 RU (2.63")	2 RU (3.50")
Standard Size	Normalling Jacks	SVJ-2	Gray	2x24	PPE1224-SVJ	PPE15224-SVJ	PPE2224-SVJ
				2x26	PPE1226-SVJ	PPE15226-SVJ	PPE2226-SVJ
			Black	2x24	PPE1224-SVJ-BK	PPE15224-SVJ-BK	PPE2224-SVJ-BK
				2x26	PPE1226-SVJ-BK	PPE15226-SVJ-BK	PPE2226-SVJ-BK
		SVJ-2T Terminated	Gray	2x24	PPE1224-SVJT	PPE15224-SVJT	PPE2224-SVJT
				2x26	PPE1226-SVJT	PPE15226-SVJT	PPE2226-SVJT
			Black	2x24	PPE1224-SVJT-BK	PPE15224-SVJT-BK	PPE2224-SVJT-BK
				2x26	PPE1226-SVJT-BK	PPE15226-SVJT-BK	PPE2226-SVJT-BK
	Straight-Through Jacks	CJ2014N	Gray	2x24	PPE1224-CJ48	PPE15224-CJ48	PPE2224-CJ48
				2x26	PPE1226-CJ52	PPE15226-CJ52	PPE2226-CJ52
			Black	2x24	PPE1224-CJ48-BK	PPE15224-CJ48-BK	PPE2224-CJ48-BK
				2x26	PPE1226-CJ52-BK	PPE15226-CJ52-BK	PPE2226-CJ52-BK
		CJ2020N-75 Terminated	Gray	2x24	PPE1224-CJ48T	PPE15224-CJ48T	PPE2224-CJ48T
				2x26	PPE1226-CJ52T	PPE15226-CJ52T	PPE2226-CJ52T
			Black	2x24	PPE1224-CJ48T-BK	PPE15224-CJ48T-BK	PPE2224-CJ48T-BK
				2x26	PPE1226-CJ52T-BK	PPE15226-CJ52T-BK	PPE2226-CJ52T-BK
	Monitoring Panel	SVJ-2	Gray	3x24	-	-	PPE2324-SVJ-MON
				3x26	-	-	PPE2326-SVJ-MON
			Black	3x24	-	-	PPE2324-SVJ-MON-BK
				3x26	-	-	PPE2326-SVJ-MON-BK
		SVJ-2T Terminated	Gray	3x24	-	-	PPE2324-SVJT-MONT
				3x26	-	-	PPE2326-SVJT-MONT
			Black	3x24	-	-	PPE2324-SVJT-MONT-BK
				3x26	-	-	PPE2326-SVJT-MONT-BK
MUSA Standard	Straight-Through Jacks	SMJ-2100	Gray	2x24	PPE1224-SMJ	PPE15224-SMJ	PPE2224-SMJ
				2x26	PPE1226-SMJ	PPE15226-SMJ	PPE2226-SMJ
			Black	2x24	PPE1224-SMJ-BK	PPE15224-SMJ-BK	PPE2224-SMJ-BK
				2x26	PPE1226-SMJ-BK	PPE15226-SMJ-BK	PPE2226-SMJ-BK
Standard Size and MUSA	Empty	None	Gray	2x24	PPE1224	PPE15224	PPE2224
				2x26	PPE1226	PPE15226	PPE2226
			Black	2x24	PPE1224-BK	PPE15224-BK	PPE2224-BK
				2x26	PPE1226-BK	PPE15226-BK	PPE2226-BK

Video Patching Systems

ProPatch® Economical (PPE) Series

Ordering Information

Description					Catalog Number
		Jack Type	Color		4 RU (7.00")
Midsize	Normalling Jacks	MVJ-3	Gray	6x32	PPE4632-MVJ
			Black	6x32	PPE4632-MVJ-BK
		MVJ-3T Terminated	Gray	6x32	PPE4632-MVJT
			Black	6x32	PPE4632-MVJT-BK
	Straight-Through Jacks	CJM	Gray	6x32	PPE4632-CJM
			Black	6x32	PPE4632-CJM-BK
		CJMT Terminated	Gray	6x32	PPE4632-CJMT
			Black	6x32	PPE4632-CJMT-BK
	Empty	None	Gray	6x32	PPE4632
			Black	6x32	PPE4632-BK
Standard Size	Normalling Jacks	SVJ-2	Gray	6x24	PPE4624-SVJ
				6x26	PPE4626-SVJ
			Black	6x24	PPE4624-SVJ-BK
				6x26	PPE4626-SVJ-BK
		SVJ-2T Terminated	Gray	6x24	PPE4624-SVJT
				6x26	PPE4626-SVJT
			Black	6x24	PPE4624-SVJT-BK
				6x26	PPE4626-SVJT-BK
	Straight-Through Jacks	CJ2014N	Gray	6x24	PPE4624-CJ48
				6x26	PPE4626-CJ52
			Black	6x24	PPE4624-CJ48-BK
				6x26	PPE4626-CJ52-BK
		CJ2020N-75 Terminated	Gray	6x24	PPE4624-CJ48T
				6x26	PPE4626-CJ52T
			Black	6x24	PPE4624-CJ48T-BK
				6x26	PPE4626-CJ52T-BK
MUSA Standard	Straight-Through Jacks	SMJ-2100	Gray	6x24	PPE4624-SMJ
				6x26	PPE4626-SMJ
			Black	6x24	PPE4624-SMJ-BK
				6x26	PPE4626-SMJ-BK
Standard Size and MUSA	Empty	None	Gray	6x24	PPE4624
				6x26	PPE4626
			Black	6x24	PPE4624-BK
				6x26	PPE4626-BK
Snap-Over Window Kits					
Window for all 1-rack unit standard WECO and MUSA 1.75" panels, 2 windows					VP-DES-279-A
Window for all 1-rack unit midsize WECO 1.75" panels, 2 windows					VP-DES-343-A
Window for all 1.5-rack unit and larger standard, midsize and MUSA, 1 window					HDW-101115

Video Patching Systems

Coax Patch Cords

ADC offers high-quality video patch cords capable of handling uncompressed high-definition digital video, serial digital video, and analog as well as AES audio. ADC patch cords feature a patented True 75 Ω design made of the highest quality materials that virtually eliminates bit errors, and provides excellent mechanical durability.

The digital television revolution is stretching the limits of the physical plant technology designed for analog video copper. Cable and connectors not optimized for the digital environment can seriously degrade the digital signal being transported. The problem is that all WECO-standard jacks and patch cords exhibit an impedance violation of between 58 and 62 Ω in the patched state. This becomes a major source of attenuation and bit errors in serial digital and high-definition video signals.

Patented HD Patch Cords

ADC's ST series standard-size patch cords feature a patented design that provides a true 75 Ω interface in the patched state when used with ADC's SVJ-2 super video jack family. ST series maintains the WECO interface for maximum industry compatibility and provides a true 75 Ω interface.

HD Rated VX™ Series

ADC's VX™ standard, midsize and MUSA standard video patch cords feature a unique plug design that optimizes impedance performance during the patched state. The unique plug design is optimized for HD video applications for WECO midsize and MUSA formats. For WECO standard size HD patching, the ST series is recommended.

Both designs reduce or eliminate attenuation and bit errors in serial digital and high-definition video signals, especially in the uncompressed mode.

Features

- Patented design provides a 75 Ω interface in the patched state
- Standard size compatible with all WECO .090 standard video jacks
- Performance matched for uncompressed HDTV signals (1.485 Gbit/s)
- Gastight crimp design. 100 percent solderless construction assures quality
- Precision-molded insulators for true impedance match and greater unit-to-unit consistency compared to machined plastic
- HD-rated 1505F cable with matte finish
- Full-molded strain relief defeats abuse
- Gold-plated center conductors
- Available in red, green, blue, black, orange, yellow, violet, and white in 2-foot (.6 m) to 6-foot (1.8 m) lengths
- MUSA format features unique closed-entry center pin to prevent breakage

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Video Patching Systems

Coax Patch Cords – For all WECO Standard Size 2x24 and 2x26 Panels

Ordering Information

Description	Catalog Number				
	1 ft/.3 m	2 ft/.61 m	3 ft/.93 m	4 ft/1.22 m	6 ft/1.83 m
WECO Standard Size VX to Standard Size VX Plug					
Black	BK1VX	BK2VX	BK3VX	BK4VX	BK6VX
Red	R1VX	R2VX	R3VX	R4VX	R6VX
Orange	O1VX	O2VX	O3VX	O4VX	O6VX
Yellow	Y1VX	Y2VX	Y3VX	Y4VX	Y6VX
Green	G1VX	G2VX	G3VX	G4VX	G6VX
Blue	B1VX	B2VX	B3VX	B4VX	B6VX
Violet	V1VX	V2VX	V3VX	V4VX	V6VX
White	W1VX	W2VX	W3VX	W4VX	W6VX
WECO ST Standard Size ST HD to Standard Size Plug					
Black	BK1V-STS	BK2V-STS	BK3V-STS	BK4V-STS	BK6V-STS
Red	R1V-STS	R2V-STS	R3V-STS	R4V-STS	R6V-STS
Orange	O1V-STS	O2V-STS	O3V-STS	O4V-STS	O6V-STS
Yellow	-	Y2V-STS	Y3V-STS	Y4V-STS	Y6V-STS
Green	-	G2V-STS	G3V-STS	G4V-STS	G6V-STS
Blue	-	B2V-STS	B3V-STS	B4V-STS	B6V-STS
Violet	-	V2V-STS	V3V-STS	V4V-STS	V6V-STS
White	-	W2V-STS	W3V-STS	W4V-STS	W6V-STS
WECO Standard Size VX to BNC					
Black	BK1VX-B	BK2VX-B	BK3VX-B	BK4VX-B	BK6VX-B
Red	R1VX-B	R2VX-B	R3VX-B	R4VX-B	R6VX-B
Orange	O1VX-B	O2VX-B	O3VX-B	O4VX-B	O6VX-B
Yellow	Y1VX-B	Y2VX-B	Y3VX-B	Y4VX-B	Y6VX-B
Blue	B1VX-B	B2VX-B	B3VX-B	B4VX-B	B6VX-B
Violet	V1VX-B	V2VX-B	V3VX-B	V4VX-B	V6VX-B
WECO Standard Size ST HD to BNC					
Black	BK1V-STS-B	BK2V-STS-B	BK3V-STS-B	BK4V-STS-B	BK6V-STS-B
Red	R1V-STS-B	R2V-STS-B	R3V-STS-B	R4V-STS-B	R6V-STS-B
Orange	O1V-STS-B	O2V-STS-B	O3V-STS-B	O4V-STS-B	O6V-STS-B
Yellow	Y1V-STS-B	Y2V-STS-B	Y3V-STS-B	Y4V-STS-B	Y6V-STS-B
Green	G1V-STS-B	G2V-STS-B	G3V-STS-B	G4V-STS-B	G6V-STS-B
Blue	B1V-STS-B	B2V-STS-B	B3V-STS-B	B4V-STS-B	B6V-STS-B
Violet	V1V-STS-B	V2V-STS-B	V3V-STS-B	V4V-STS-B	V6V-STS-B

Note: Standard patch cord colors are black, red, orange, yellow, green, blue, violet and white. These color cords are available in the standard lengths shown above; please contact ADC for additional custom lengths and leadtime.

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Video Patching Systems

Coax Patch Cords – For all WECO Midsize 2x32 Panels

Ordering Information

Description	Catalog Number				
	1 ft/.3 m	2 ft/.61m	3 ft/.93 m	4 ft/1.22 m	6 ft/1.83 m
WECO Midsize Plug to Midsize Plug					
Black	BK1V-STM	BK2V-STM	BK3V-STM	BK4V-STM	BK6V-STM
Red	R1V-STM	R2V-STM	R3V-STM	R4V-STM	R6V-STM
Orange	O1V-STM	O2V-STM	O3V-STM	O4V-STM	O6V-STM
Yellow	Y1V-STM	Y2V-STM	Y3V-STM	Y4V-STM	Y6V-STM
Green	G1V-STM	G2V-STM	G3V-STM	G4V-STM	G6V-STM
Blue	B1V-STM	B2V-STM	B3V-STM	B4V-STM	B6V-STM
Violet	V1V-STM	V2V-STM	V3V-STM	V4V-STM	V6V-STM
White	W1V-STM	W2V-STM	W3V-STM	W4V-STM	W6V-STM
WECO Midsize Plug to BNC					
Black	BK1V-STM-B	BK2V-STM-B	BK3V-STM-B	BK4V-STM-B	BK6V-STM-B
Red	R1V-STM-B	R2V-STM-B	R3V-STM-B	R4V-STM-B	R6V-STM-B
Orange	O1V-STM-B	O2V-STM-B	O3V-STM-B	O4V-STM-B	O6V-STM-B
Yellow	Y1V-STM-B	Y2V-STM-B	Y3V-STM-B	Y4V-STM-B	Y6V-STM-B
Green	G1V-STM-B	G2V-STM-B	G3V-STM-B	G4V-STM-B	G6V-STM-B
Blue	B1V-STM-B	B2V-STM-B	B3V-STM-B	B4V-STM-B	B6V-STM-B
Violet	V1V-STM-B	V2V-STM-B	V3V-STM-B	V4V-STM-B	V6V-STM-B
White	W1V-STM-B	W2V-STM-B	W3V-STM-B	W4V-STM-B	W6V-STM-B
WECO Midsize Plug to Standard Size Plug					
Black	BK1V-M-S	BK2V-M-S	BK3V-M-S	BK4V-M-S	BK6V-M-S
Red	R1V-M-S	R2V-M-S	R3V-M-S	R4V-M-S	R6V-M-S
Orange	O1V-M-S	O2V-M-S	O3V-M-S	O4V-M-S	O6V-M-S
Yellow	Y1V-M-S	Y2V-M-S	Y3V-M-S	Y4V-M-S	Y6V-M-S
Green	G1V-M-S	G2V-M-S	G3V-M-S	G4V-M-S	G6V-M-S
Blue	B1V-M-S	B2V-M-S	B3V-M-S	B4V-M-S	B6V-M-S
Violet	V1V-M-S	V2V-M-S	V3V-M-S	V4V-M-S	V6V-M-S
White	W1V-M-S	W2V-M-S	W3V-M-S	W4V-M-S	W6V-M-S
MUSA to MUSA (HD)					
Black	BK300V-MU	BK600V-MU	BK900V-MU	BK1200V-MU	BK1800V-MU
Red	R300V-MU	R600V-MU	R900V-MU	R1200V-MU	R1800V-MU
Orange	O300V-MU	O600V-MU	O900V-MU	O1200V-MU	O1800V-MU
Yellow	Y300V-MU	Y600V-MU	Y900V-MU	Y1200V-MU	Y1800V-MU
Green	G300V-MU	G600V-MU	G900V-MU	G1200V-MU	G1800V-MU
Blue	B300V-MU	B600V-MU	B900V-MU	B1200V-MU	B1800V-MU
Violet	V300V-MU	V600V-MU	V900V-MU	V1200V-MU	V1800V-MU
White	W300V-MU	W600V-MU	W900V-MU	W1200V-MU	W1800V-MU
MUSA to WECO Standard ST HD					
Black	BK300V-MU-STS	BK600V-MU-STS	BK900V-MU-STS	BK1200V-MU-STS	BK1800V-MU-STS
Red	R300V-MU-STS	R600V-MU-STS	R900V-MU-STS	R1200V-MU-STS	R1800V-MU-STS
Orange	O300V-MU-STS	O600V-MU-STS	O900V-MU-STS	O1200V-MU-STS	O1800V-MU-STS
Yellow	Y300V-MU-STS	Y600V-MU-STS	Y900V-MU-STS	Y1200V-MU-STS	Y1800V-MU-STS
Green	G300V-MU-STS	G600V-MU-STS	G900V-MU-STS	G1200V-MU-STS	G1800V-MU-STS
Blue	B300V-MU-STS	B600V-MU-STS	B900V-MU-STS	B1200V-MU-STS	B1800V-MU-STS
Violet	V300V-MU-STS	V600V-MU-STS	V900V-MU-STS	V1200V-MU-STS	V1800V-MU-STS
White	W300V-MU-STS	W600V-MU-STS	W900V-MU-STS	W1200V-MU-STS	W1800V-MU-STS

Note: Standard patch cord colors are black, red, orange, yellow, green, blue, violet and white. These color cords are available in the standard lengths shown above; please contact ADC for additional custom lengths and leadtime.

Audio Patching Systems

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Audio Patching Systems

ProPatch® Programmable (PPP) Series

The ProPatch® Programmable modular system offers unprecedented reliability and flexibility in a convenient, space-saving size and lightweight package. Specifically engineered for everyday use in demanding mobile trucks, the ProPatch Programmable system is the only product in its class that passes stringent MIL-STD-202F standards for vibration and environmental requirements.

The ProPatch Programmable bantam system is a WECO-standard module in a high-density 2x48 one rack space panel. The longframe system is a WECO-standard module in either a 2x24 or high-density 2x32 one rack space configuration. The modular design allows individual front jack access for circuit and ground configurations without having to take the entire panel offline or removing it from the rack. Each modular jack features WECO gold crossbar contacts that provide self-cleaning action and maximize reliability. Jack modules are also individually sealed which prevents dust and contamination from convection plenum action common in rack mounted systems.

The ProPatch Programmable series is available with a variety of termination options including QCP punchdown, LSA-PLUS® punchdown, 3-pin, 56-pin, 90-pin, 120-pin EDAC/ELCO connectors, and 50-pin AMP "champ" connectors, in both an eight-connector version for audio and a four-connector version for RTS/ClearCom type intercom systems.

Only five inches deep and 6.2 pounds fully configured, the ProPatch Programmable series is unmatched in the marketplace. Using ADC's patent-pending escutcheon kit, the one rack unit panel can be converted to a 1.5 rack unit configuration. This allows the use of ADC's ultra-large designation strips, providing room for three lines of text, plus markers—the largest designations on the market.

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Audio Patching Systems

ProPatch® Programmable (PPP) Series

Individual Jack Access

Each ProPatch Programmable panel features individual jack cards. Cards contain an individual circuit pair of jacks, front panel circuit status snap-in icon, and seven-position gold plated sealed DIP switch for normal and ground configuration. The gold-plated header card plugs and sockets contained in the chassis ensure maximum reliability.

To remove a jack, remove the top and bottom designation strips, push down the locking tab on the jack module and slide the module out from the front of the chassis. It is not necessary to remove the entire panel from the rack, or the cover from the chassis. Unauthorized circuit changes are eliminated because switches are hidden from front panel view.

The ProPatch Programmable system is the only product in its class that passes demanding MIL-202 environmental testing for thermal shock, resistance from moisture contamination, plating corrosion from salt fog, and vibration to simulate long-term fixed installation and over-the-road use.

Bantam

ProPatch Programmable panel allows individual front-panel jack access for normals and grounds without having to take the entire panel off-line. Special 7-position DIP switches allows configuration of the circuit normal and grounds without cumbersome jumpers or pins to lose. (See-through cover in photo is for demonstration purposes only.)

Longframe

Features

- Industry's only bantam and longframe audio panel fully qualified to meet demanding military standards (MIL-STD 202F for ruggedness, and MIL-J-641E for jack compliance)
- Lightweight panels weigh only 6.2 pounds (2.8 kg)
- High-density bantam 2x48 WECO-compliant bantam jacks on 0.312-inch centers
- High-density 2x32 or 2x24 longframe jack on .500-inch centers
- Gold plated DIP switch selectable circuit normals and grounds
- Shallow depth chassis determined by connector style
- Fully AES/EBU 110 W digital and analog compliant
- Modular design allows individual jack access/ configuration without affecting other circuits
- Grounds can be configured on an individual circuit basis for lift, chassis, sleeve, and common ground
- Modules snap into place, tabs lock into chassis
- Circuit status icons allow users to identify circuit status with snap-in icons in eight colors
- Designation strips cover tabs to prevent unauthorized access to circuit configuration switches
- Converts to a 1.5 rack unit panel with a patent-pending escutcheon kit
- Largest designations on the market
  Bantam: .410" for 1 RU
  Longframe: .313" for 1 RU
  Bantam and Longframe: .680" for 1.5 RU

Audio Patching Systems

ProPatch® Programmable (PPP) Series

Bantam and Longframe Chassis and Module Specifications

ELECTRICAL

Contact resistance:	0.020 Ω max (initial) 0.020 Ω max (after life cycling) 0.10 Ω max (after salt spray)
Insulation resistance:	10,000 MΩ min (initial) 1,000 MΩ min (after moisture resistance test)
Dielectric withstanding:	Voltage: 500 Vac
Contact rating:	Max: 100 mA + 130 Vdc; Min: -40 dBm

MECHANICAL

Mechanical shock:	Per MIL-STD-202F, Method 213B, test condition H
Vibration:	MIL-STD-1344, Method 2005, test condition I
Insertion force:	7 lbs (3.17 kg) max
Withdrawal force:	1.5 lbs (.679 kg) min
Life:	20,000 insertion/withdrawal cycles min

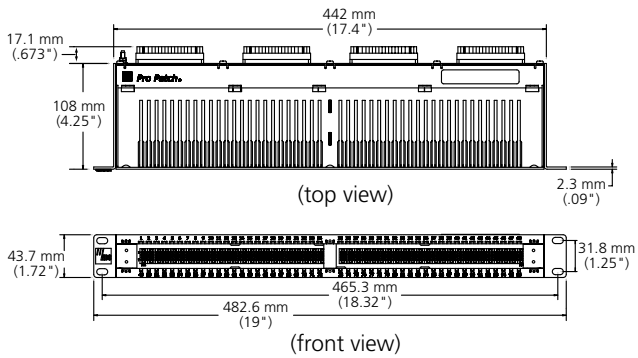
ENVIRONMENTAL

Operating temperature:	-40° to 65° C (-40° to 149° F)
Storage temperature:	-55° to 85° C (-67° to 185° F)
Thermal shock:	Per MIL-STD-202F, Method 107G, test condition A
Operating humidity:	0% to 95% (no condensation)
Storage humidity:	0% to 95% (no condensation)
Salt spray:	Per MIL-STD-202F, Method 101D
Moisture resistance:	Per MIL-STD-202F, Method 106E

MATERIALS

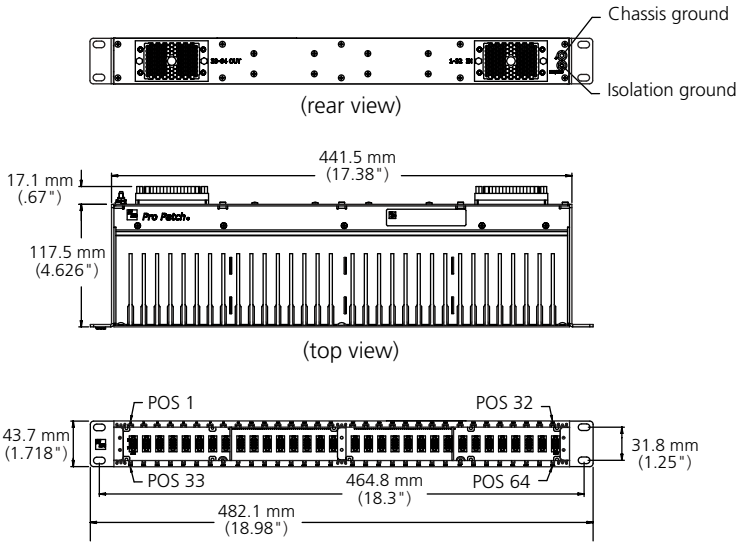
Chassis frame:	Steel, zinc plated with electroless nickel plating
Jack frame:	Unreinforced polyetherimide resin rated UL 94-V0 for flammability
Springs:	Nickel-silver
Contacts:	WECO No. 1 gold crossbar alloy welded to springs
PC boards:	FR-4
Sockets:	Phosper bronze 30 micro inches gold on contact
Switches:	Copper alloy 10 micro inches min gold on contact

Bantam Chassis Dimensions

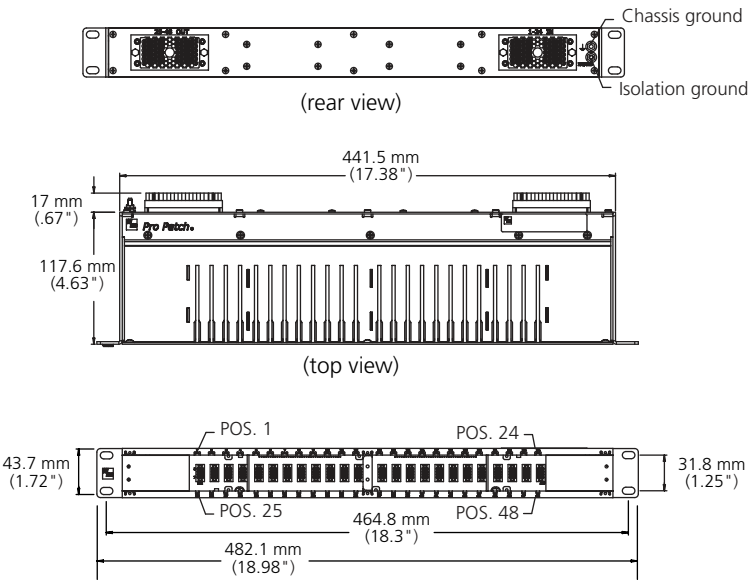


Typical 1 RU 48-Position Panel

Longframe Chassis Dimensions



Typical 1 RU 32-Position Panel



Typical 1 RU 24-Position Panel

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Audio Patching Systems

ProPatch® Programmable (PPP) Series

2x48 Bantam Panel
(shown with designation)

Ordering Information

Description		Catalog Number
2x48 Bantam Panels		
EDAC 3-Pin	Loaded chassis configured:	
	Half normalled	PPP1248-E3-HN
	Half normalled, with mating connector kit	PPP1248-E3-HN-S
	No normals	PPP1248-E3-NN
	No normals, with mating connector kit	PPP1248-E3-NN-S
	Normals strapped	PPP1248-E3-NS
	Normals strapped, with mating connector kit	PPP1248-E3-NS-S
	Empty chassis	PPP1248-E3
	Empty chassis, with mating connector kit	PPP1248-E3-S
EDAC 56-Pin	Loaded chassis configured:	
	Half normalled	PPP1248-E56-HN
	Normals strapped	PPP1248-E56-NS
	Empty chassis	PPP1248-E56
EDAC 90-Pin	Loaded chassis configured:	
	Half normalled	PPP1248-E90-HN
	Half normalled, with mating connector kit	PPP1248-E90-HN-S
	Normals strapped	PPP1248-E90-NS
	Normals strapped, with mating connector kit	PPP1248-E90-NS-S
	Empty chassis	PPP1248-E90
AMP 50 8 connectors	Loaded chassis configured: Normals strapped	PPP1248-A50-NS
	Empty chassis	PPP1248-A50
AMP 50 (Intercom) 4 connectors	Loaded chassis configured:	
	Half normalled	PPP1248-ICA50-HN
	Normals strapped	PPP1248-ICA50-NS
	Empty chassis	PPP1248-ICA50
QCP MKII	Loaded chassis configured:	
	Half normalled	PPP1248-QCP-HN
	Normals strapped	PPP1248-QCP-NS
	Empty chassis	PPP1248-QCP

EDAC 3-pin Chassis
PPP1248-E3-NS (rear view)

EDAC 56-pin Chassis
PPP1248-E56-NS (rear view)

EDAC 90-pin Chassis
PPP1248-E90-NS (rear view)

Audio Patching Systems

ProPatch® Programmable (PPP) Series

2x32 Longframe Panel
(front view)

Ordering Information

Description		Catalog Number
2x32 Longframe Panels		
EDAC 3-Pin	Loaded chassis configured:	
	Half normalled	PPP1232-E3-HN
	Half normalled, with mating connector kit	PPP1232-E3-HN-S
	Empty chassis	PPP1232-E3
	No normals	PPP1232-E3-NN
	No normals, with mating connector kit	PPP1232-E3-NN-S
	Normals strapped	PPP1232-E3-NS
	Normals strapped, with mating connector kit	PPP1232-E3-NS-S
EDAC 56-Pin	Loaded chassis configured:	
	Half normalled	PPP1232-E56-HN
	Half normalled, with mating connector kit	PPP1232-E56-HN-S
	Normals strapped	PPP1232-E56-NS
	Normals strapped, with mating connector kit	PPP1232-E56-NS-S
	Empty chassis	PPP1232-E56
EDAC 120-Pin	Loaded chassis configured:	
	Half normalled	PPP1232-E120-HN
	Half normalled, with mating connector kit	PPP1232-E120-HN-S
	Normals strapped	PPP1232-E120-NS
	Normals strapped, with mating connector kit	PPP1232-E120-NS-S
	Empty chassis	PPP1232-E120
LSA-PLUS®	Loaded chassis configured:	
	Half normalled	PPP1232-LSA-HN
	Normals strapped	PPP1232-LSA-NS
	Empty chassis	PPP1232-LSA
QCP MKII	Loaded chassis configured:	
	Half normalled	PPP1232-QCP-HN
	Normals strapped	PPP1232-QCP-NS
	Empty chassis	PPP1232-QCP

Audio Patching Systems

ProPatch® Programmable (PPP) Series

2x24 Longframe Panel
(front view)

Ordering Information

Description		Catalog Number
2x24 Longframe Panels		
EDAC 90-Pin	Loaded chassis configured:	
	Half normalled	PPP1224-E90-HN
	Half normalled, with mating connector kit	PPP1224-E90-HN-S
	Normals strapped	PPP1224-E90-NS
	Normals strapped, with mating connector kit	PPP1224-E90-NS-S
	Empty chassis	PPP1224-E90
LSA-PLUS®	Loaded chassis configured:	
	Half normalled	PPP1224-LSA-HN
	Normals strapped	PPP1224-LSA-NS
	Empty chassis	PPP1224-LSA
QCP MKIV	Loaded chassis configured:	
	Half normalled	PPP1224-MKIV-HN
	Normals strapped	PPP1224-MKIV-NS
	Empty chassis	PPP1224-MKIV
QCP MKII	Loaded chassis configured:	
	Half normalled	PPP1224-QCP-HN
	Normals strapped	PPP1224-QCP-NS
	Empty chassis	PPP1224-QCP

QCP MKII Chassis
(rear view)

LSA-PLUS Chassis
(rear view)

Audio Patching Systems

ProPatch® Programmable (PPP) Series

PJ339 and PJ482 Longframe Audio Jack Specifications

ELECTRICAL

Contact Resistance:	0.020 Ω maximum (initial) 0.020 Ω maximum (after life cycling) 0.10 Ω maximum (after salt spray)
Insulation Resistance:	10,000 megΩs minimum (initial) 1,000 megΩs minimum (after moisture resistance test)
Dielectric Withstanding:	Voltage: 500 Vac
Contact Rating:	Maximum: 100 mA + 130 Vdc; Minimum: -40 dBm

MECHANICAL

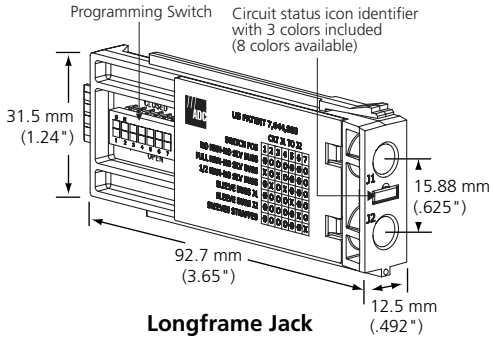
Mechanical Shock:	Per MIL-STD-202F, Method 213B, test condition H
Vibration:	MIL-STD-1344, Method 2005, test condition I
Insertion Force:	7 lbs. (3.17 kg) maximum
Withdrawal Force:	1.5 lbs. (.679 kg) minimum
Life:	20,000 insertion/withdrawal cycles minimum

ENVIRONMENTAL

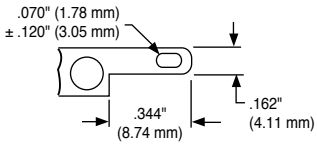
Operating Temp:	-40° C to 65° C
Storage Temp:	-55° C to 85° C
Thermal Shock:	Per MIL-STD-202F, Method 107G, test condition A
Operating Humidity:	0% to 95% (no condensation)
Storage Humidity:	0% to 95% (no condensation)
Salt Spray:	Per MIL-STD-202F, Method 101D
Moisture Resistance:	Per MIL-STD-202F, Method 106E

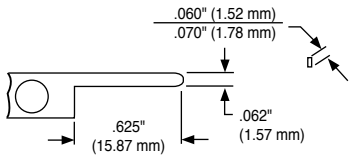
MATERIALS

Frame:	Steel, zinc plated with electroless nickel plating
Sleeve:	Brass, nickel plated
Insulators:	Unreinforced polyetherimide resin rated UL 94-V0 for flammability
Springs:	Nickel-silver
Contacts:	WECO No. 1 gold crossbar alloy welded to springs
Solder Lugs:	Hot tin dipped

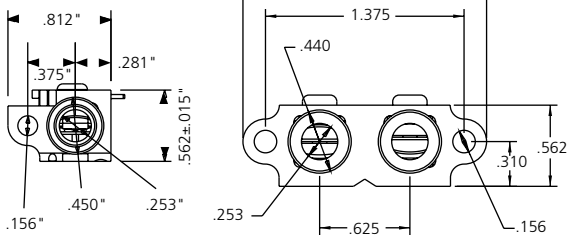


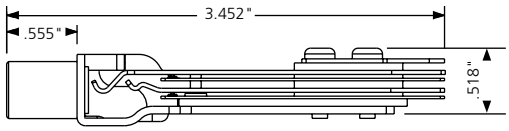
Longframe Jack





Single Longframe Audio Jack





PJ482

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Audio Patching Systems

ProPatch® Programmable (PPP) Series

PJ839 and PJ889 Bantam Audio Jack Specifications

ELECTRICAL

Contact Resistance:	0.020 Ω maximum (initial) 0.020 Ω maximum (after life cycling) 0.10 Ω maximum (after salt spray)
Insulation Resistance:	10,000 megΩs minimum (initial) 1,000 megΩs minimum (after moisture resistance test)
Dielectric Withstanding:	
Voltage:	500V RMS
Contact Rating:	Maximum: 100 mA ± 130 Vdc; Minimum: -40 dBm

MECHANICAL

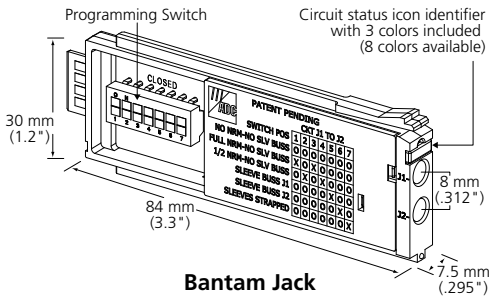
Mechanical Shock:	Per MIL-STD-202F, Method 213B, test condition H
Vibration:	MIL-STD-1344, Method 2005, test condition I
Insertion Force:	7 lbs. (3.17 kg) maximum
Withdrawal Force:	1.5 lbs. (.679 Kg) minimum
Life:	20,000 insertion/withdrawal cycles minimum

ENVIRONMENTAL

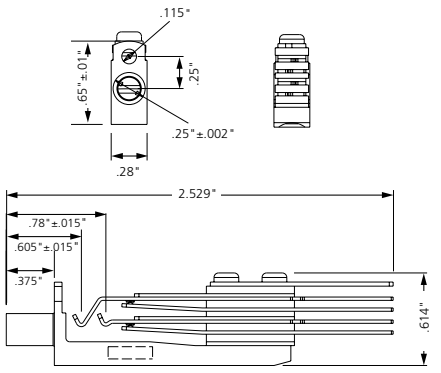
Operating Temp:	-40° C to 65° C
Storage Temp:	-55° C to 85° C
Thermal Shock:	Per MIL-STD-202F, Method 107G, test condition A
Operating Humidity:	0% to 95%, non-condensing
Storage Humidity:	0% to 95%, non-condensing
Salt Spray:	Per MIL-STD-202F, Method 101D
Moisture Resistance:	Per MIL-STD-202F, Method 106E

MATERIALS

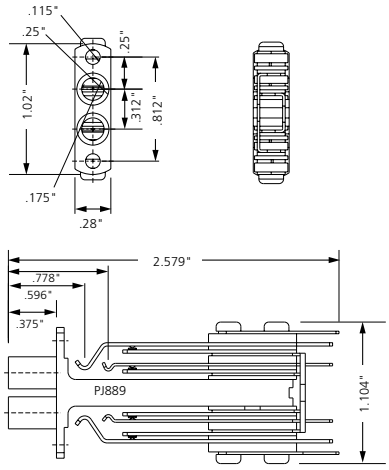
Frame:	Zinc die-cast zinc plated with electroless nickel plating
Insulators:	Unreinforced polyetherimide resin rated UL 94-V0 for flammability
Springs:	Nickel-Silver alloy
Contacts:	WECO No. 1 gold crossbar alloy welded to springs



Bantam Jack



Three-Conductor Single Bantam Jack



Three-Conductor Dual Bantam Jack

Audio Patching Systems

ProPatch® Programmable (PPP) Series

Jacks and Accessories

Bantam Jack
(AM1-BAN)

Longframe Jack
(AM-LF1)

1.5 RU Chassis Conversion Kit
(PPP-15-CHAS-KIT)

Ordering Information

Description	Catalog Number
Programmable Audio Jacks	
Bantam	AM1-BAN
Longframe	AM-LF1
1.5 RU Chassis Conversion Kit for Bantam and Longframe	PPP-15-CHAS-KIT
Designation Kits	
11.2 mm (.44")	VP-DES-440
17.3 mm (.68")	VP-DES-680-B
35.6 mm (1.4")	VP-DES-1400-B

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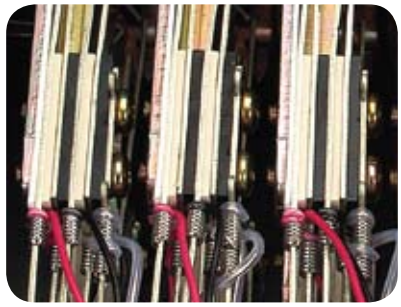
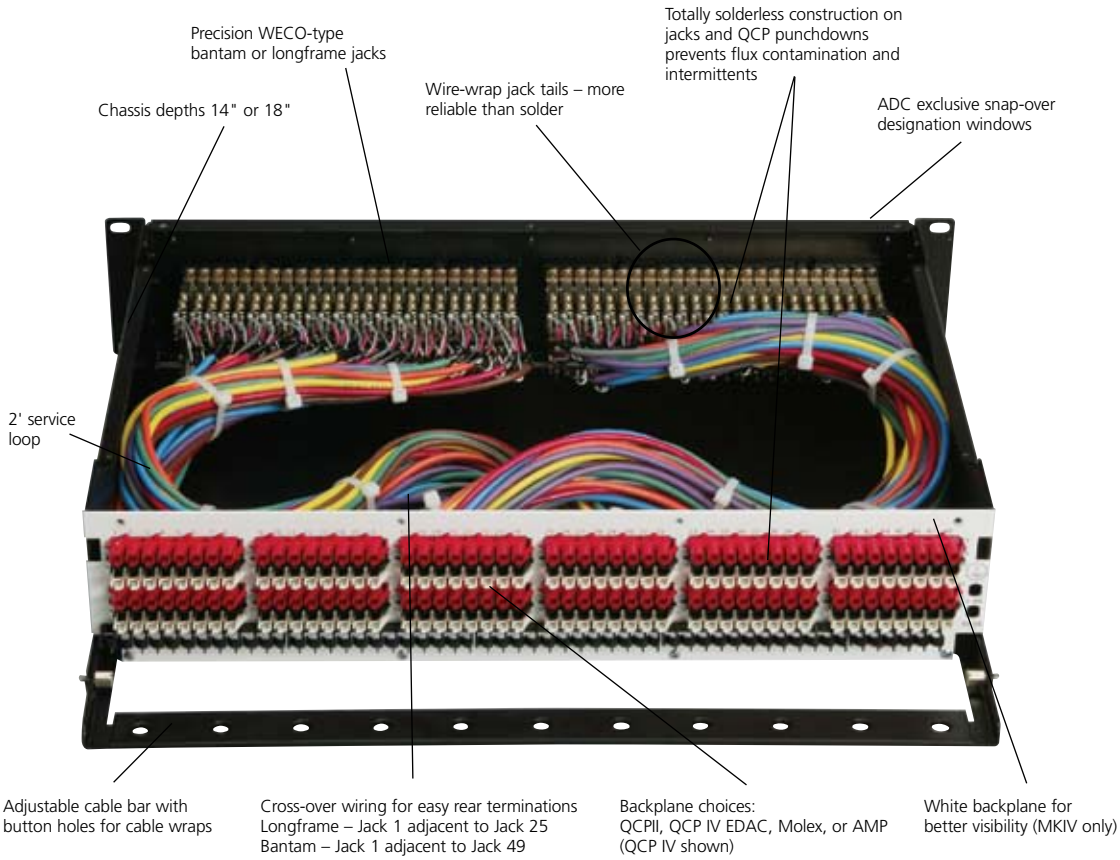
Audio Patching Systems

ProPatch® Professional (PPA and PPB) Series

Patchbays and Jackfields

ProPatch professional audio patchbays and broadcast jackfields feature an extensive selection of jacks, panel sizes, normalling options, and rear terminations. Each panel contains ADC's high-quality, WECO-standard, frame-type jacks and includes a tough powder-coated chassis with built-in cable support and designation strips. Solderless internal wiring and terminations ensure completely dependable performance without intermittents. Termination options include the extremely reliable and quick-to-wire QCP II or QCP IV punchdown system as well as EDAC, AMP, and Molex connector options.





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Broadcast and Entertainment Products

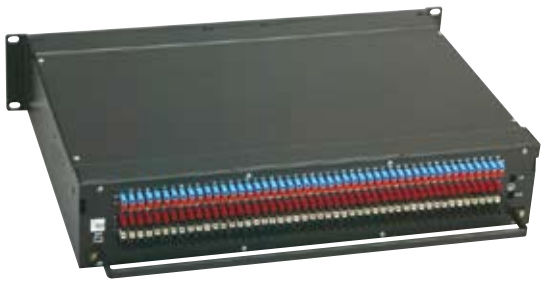
Audio Patching Systems

ProPatch® Professional (PPA and PPB) Series

Ready to meet any analog or digital audio patching requirement, ProPatch professional audio patchbays offer an extensive selection of options. Models are available with standard or stereo-spaced longframe jacks, bantam jacks, and a variety of backplane connector types. MKII models come with QCP II, EDAC, or AMP backplane connectors and fixed cable support bars. MKIV models include QCP IV, EDAC, or AMP backplane connectors, adjustable cable support bars and a white backplane for easier circuit visibility. All models offer a wide choice of normals, a tough powder-coated chassis, and solderless internal wiring for outstanding reliability.

1 RU Longframe Evenly Spaced 2x24
(front view)
(PPA1-14MKIVNS)

2 RU Bantam Evenly Spaced 2x48
(front view)
(PPB3-14MKIVNS)



2 RU Bantam Evenly-Spaced 2x24
(rear view)
(PPB3-14MKIINO)

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Audio Patching Systems

ProPatch® Professional (PPA and PPB) Series

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Features

Next Generation ProPatch Audio Jackfields

- Analog and digital compatible—all wired with precision 110 low capacitance cable for extended analog frequency response and extended distance digital transmission (no need to specify type)
- Uniform faceplate design with standardized designation strip lengths provides a seamless appearance when matched with video panels (over and under designation)
- New lighter one-piece chassis design
- Adjustable cable strain relief bar—tilts out of way for installation access
- High impact plastic injected molded jack inserts—more durable than phenolic materials
- Standard Bantam jackfields come with regular (even) spaced inserts—stereo (group) spacing available

Longframe or Bantam Jacks

- Longframe jacks in 2x24 or 2x26 array stereo or regular spaced
- Bantam jacks in 2x48 array stereo or regular spaced

Digital Audio Cable Wiring

- Precision 110 Ω digital audio cable meets and exceeds stringent AES requirements

Variety of Jack Options

- Standard longframe jacks (evenly spaced)
- High-density bantam jacks, regular or spaced (stereo-spaced option available)
- Stereo-spacing option places jacks in pairs

Standard or Custom Sizes

- 1 RU (1.75"/44.5 mm)
- 2 RU (3.5"/88 mm)
- Depths of 14 inches (350 mm) or 18 inches (450 mm)
- Custom panel sizes available

Wide Selection of Terminations

- Patented QCP II or QCP IV punchdown connectors
- EDAC/ELCO 90-, 56-, 38- and 3-pin plugs
- AMP 50-pin receptacle
- Molex 3-pin plug

Full Range of Normalling Options

- No normals (requires looping plugs or cords for patch)
- Normals strapped (fully normalled)
- Half-normalled (monitor top row)
- Normals brought out
- Sleeve normals brought out
- Sleeves strapped
- Bussed grounds

2 RU Longframe 2x24 EDAC 3-Pin (rear view)
(PPA3-14MKIV3ENS)

2 RU Bantam EDAC 2x48 (rear view)
(PPB3-14MKIVEN0)

1 RU Longframe Evenly Spaced 2x24 QCPII (rear view)
(PPA1-14MKIINS)

Audio Patching Systems

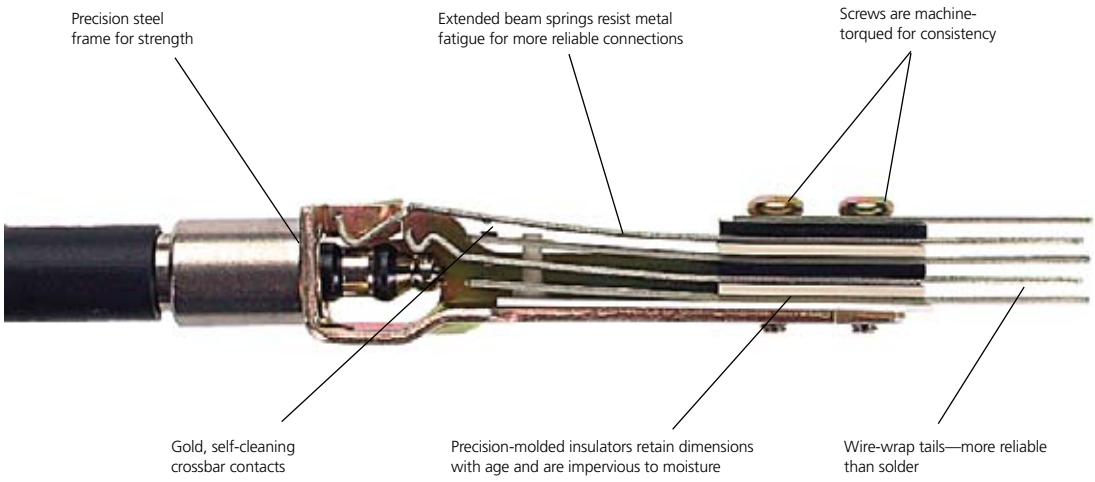
ProPatch® Professional (PPA and PPB) Series

Jacks

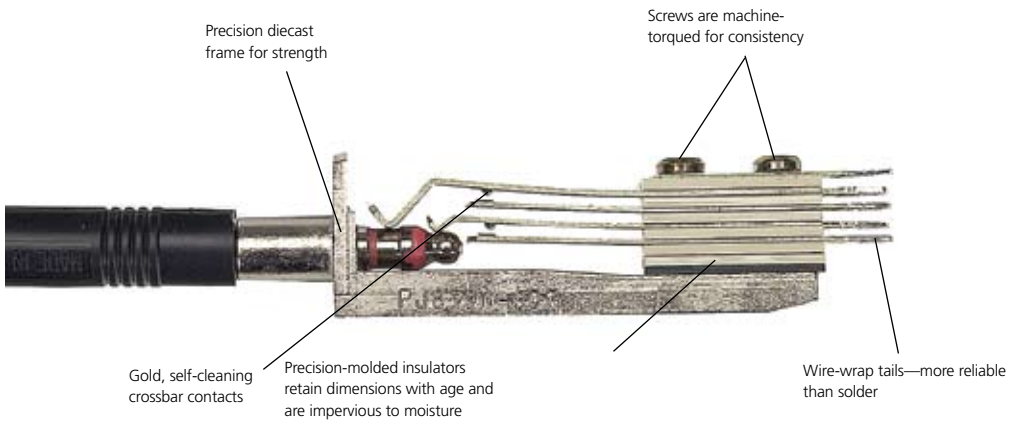
The quality of an audio jack is visible in the details. For example, inside ADC's jacks, the gold, self-cleaning crossbar contacts are designed to wipe across each other at an angle that removes debris with every plug insertion. Extended spring beams provide greater resilience for long life and firm contact force. Precision-molded insulators do not change dimensions even in tough environments, ensuring consistent spring torque and reliable performance.

Features

- Jacks used in all patch cords are WECO-standard jacks that adhere to MIL-STD-202F specifications
- Absolutely reliable WECO alloy #1 gold, self-cleaning crossbar contacts wipe away debris with every insertion
- Solder-free wire-wrap tails prevent intermittents from cold solder joints or flux migration. Far more reliable than solder
- Tested to withstand tough mobile applications, including vibration, temperature (-55° C to 85° C), moisture, and salt air



Longframe Audio Jack
(PJ339W)



Bantam Audio Jack
(PJ839W)

Audio Patching Systems

ProPatch® Professional (PPA and PPB) Series

QCP II and QCP IV Termination Systems

Innovative QCP connectors can really speed up an installation. No need to spend time prepping wires and laboriously soldering and crimping connector pins. Just insert the wire and punch. In one motion you have a reliable gastight connection, even with multiple wires. The unique patented design holds wire far more securely than telco-type punchdowns, preventing intermittents.

MKII panels use QCP II individual terminal insulators, which allow greater density and can be replaced individually. MKIV panels use QCP IV 1x8 terminal blocks insulated on both the front and back of the panel to prevent shorts.

QCP IV Connections

Features

- ADC's exclusive, patented QCP II and QCP IV split-cylinder punchdown termination system is faster and easier to install and more reliable than any other termination system, including solder.
- Dependable, durable, split-cylinder design holds up to three stranded or solid wires, 22 to 26 gauge (0.32 mm to 0.128 mm)
- No intermittents with gastight connections. Uniform split channel width holds each wire firmly, unlike telco punchdowns with V-shaped channels or soldered connections that use flux and may have unreliable solder joints
- Easy prelacing makes installation faster. Color-coding prevents wiring mistakes
- Labor-saving punch terminates and cuts wire in one simple motion. QCP IV installs even faster because you don't have to orient the tool before punching
- Faster and easier changes in circuits or normals than soldered connector systems. Rated for up to 200 insertion/withdrawal cycles
- QCP II terminations are individually mounted and insulated for easy repair or replacement
- QCP IV terminations are mounted in 1x8 blocks insulated on both sides of the panel. This design, plus the recessed conductors, eliminates shorts

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Audio Patching Systems

ProPatch® Professional (PPA and PPB) Series

Ordering Information

Catalog Number

PP___ ___ - ___ MK ___ ___ ___ ___ ___

Jack Type

A	Longframe regular spaced audio jacks
S	Stereo-spaced longframe jacks
B	Bantam audio regular spaced jacks
BS	Stereo-spaced bantam audio jacks*

Panel Height

1	1 RU 1.75" (44 mm)
3	2 RU 3.5" (88 mm)

Chassis Depth

14	14" (350 mm)
18	18" (450 mm)

Panel Series

II	MKII panel series
IV	MKIV panel series (2x24 and 2x48 only)

Number of Jacks

LEAVE BLANK	2x24 longframe or 2x48 bantam jacks
26	2x26 longframe jacks

Ground Options

BG	Bussed grounds
LEAVE BLANK	Non-bussed grounds

Normal Options

NS	Normals strapped
NO	Normals out
HN	Half-normalled
SN	Sleeve normals out

Connector Type

LEAVE BLANK	QCP
E	EDAC/ELCO 90-pin plug
A	AMP 50-pin receptacle
3E	EDAC 3-pin plug
E8	EDAC/ELCO 38-pin plug
E56	EDAC/ELCO 56-pin plug
M	Molex 3-pin plug
E90	EDAC 90
E120	EDAC 120

Example: PPA3-14MKII26NOBG — ProPatch 2 RU panel, 14" deep with QCP II punchdowns, 2x26 array of longframe jacks, normals out audio normalling, and bussed grounds.

Note: For mobile applications rear chassis support is recommended. (Catalog number: SBK-1 and SBK-2)

Digital Audio
Use 110 Ω 1% resistors on normals of unstrapped jacks (normals out version only).

* For information on this and other custom configurations, please contact ADC.

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Audio Patching Systems

ProPatch® Professional (PPA and PPB) Series

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Ordering Information

Description	Catalog Number
Patchbays	
Normals Out	
1.75" 2x24 longframe, QCP II, 14" chassis *	PPA1-14MKIINO
3.50" 2x24 longframe, QCP IV, 14" chassis	PPA3-14MKIVNO
3.50" 2x26 longframe, QCP II, bussed grounds, 14" chassis**	PPA3-14MKII26NO
3.50" 2x26 longframe, QCP II, 18" chassis**	PPA3-18MKII26NO
3.50" 2x24 longframe, QCP IV, 18" chassis	PPA3-18MKIVNO
3.50" 2x48 bantam, QCP II, 14" chassis	PPB3-14MKIINO
3.50" 2x48 bantam, QCP II, 18" chassis	PPB3-18MKIINO
3.50" 2x48 bantam, QCP II, bussed grounds, 14" chassis	PPB3-14MKIINOBG
Normals Strapped (Fully Normalled)	
1.75" 2x24 longframe, QCP IV, 14" chassis	PPA1-14MKIVNS
1.75" 2x26 longframe, EDAC 90-pin plug, 14" chassis	PPA1-14MKII26ENS
3.50" 2x24 longframe, QCP IV, 14" chassis	PPA3-14MKIVNS
3.50" 2x24 longframe, QCP IV, 18" chassis	PPA3-18MKIVNS
3.50" 2x26 longframe, QCP II, 14" chassis**	PPA3-14MKII26NS
3.50" 2x26 longframe, EDAC 90-pin plug, 14" chassis	PPA3-14MKII26ENS
3.50" 2x48 bantam, QCP IV, 14" chassis	PPB3-14MKIVNS
1.75" 2x48 bantam, EDAC 90-pin plug, 14" chassis	PPB1-14MKIIENS
3.50" 2x48 bantam, EDAC 90-pin plug, 14" chassis	PPB3-14MKIIENS
Half-Normals (Monitor top row)	
1.75" 2x24 longframe, QCP IV, 14" chassis	PPA1-14MKIVHN
1.75" 2x26 longframe, QCP II, 14" chassis**	PPA1-14MKII26HN
1.75" 2x24 longframe, EDAC 90-pin plug, 14" chassis	PPA1-14MKII24EHN
3.50" 2x24 longframe, QCP IV, 14" chassis	PPA3-14MKIVHN
3.50" 2x24 longframe, QCP IV, 18" chassis	PPA3-18MKIVHN
3.50" 2x26 longframe, EDAC 90-pin plug, 14" MKII style chassis**	PPA3-14MKII26EHN
1.75" 2x48 bantam, EDAC 90-pin plug, 14" MKII style chassis	PPB1-14MKIIEHN
3.50" 2x48 bantam, QCP IV, 14" chassis	PPB3-14MKIVHN
3.50" 2x48 bantam, EDAC 90-pin plug, 14" chassis	PPB3-14MKIIEHN
No Normals (Requires looping plug or patch cord)	
1.75" 2x24 longframe, QCP IV, 14" chassis	PPA1-14MKIVNN
3.50" 2x48 bantam, QCP IV, 14" chassis	PPB3-14MKIVNN
Sleeve Normals Brought Out	
3.50" 2x24 longframe, QCP IV, 14" chassis	PPA3-14MKIVSN
3.50" 2x26 longframe, QCP II, 14" chassis**	PPA3-14MKII26SN

* 1 RU 2x24 normals out panel only available in QCP MKII version.
** 2x26 panels only available in QCP MKII versions.

Note: For mobile applications, rear chassis support is recommended. Order ProPatch support bar kit (Catalog Number: SBK-1 or SBK-2); mounts on rear rack rails to support rear of panel.

Note: Bussed ground option available on all panels; please contact ADC for details.

Audio Patching Systems

ProPatch® Umbilical (BJF) Series

Jackfields

ADC broadcast jackfields simplify the task of wiring rack-mounted panels by separating the jacks from the backplane. The jack panel mounts on the front of the rack, and the Ultra Patch termination panel mounts on the rear with an umbilical connecting the two. This arrangement makes the termination wiring more accessible so you don't have to reach into the rack to make connections. In addition, the totally solderless wiring of both panels provides more reliable connections than solder, ensuring dependable service.

Options available include panel sizes, longframe or Bantam jacks, choice of normalling, standard or custom umbilical length, and QCP II, QCP IV, or EDAC rear panel connectors. All BJF series panels now feature AES digital/audio with precision 110 Ω low capacitance shielded twisted pair cable. MKII panels include fixed cable trays. MKIV panels have adjustable cable bars and white backplanes for better visibility.

Features

Choice of Panel and Umbilical Sizes

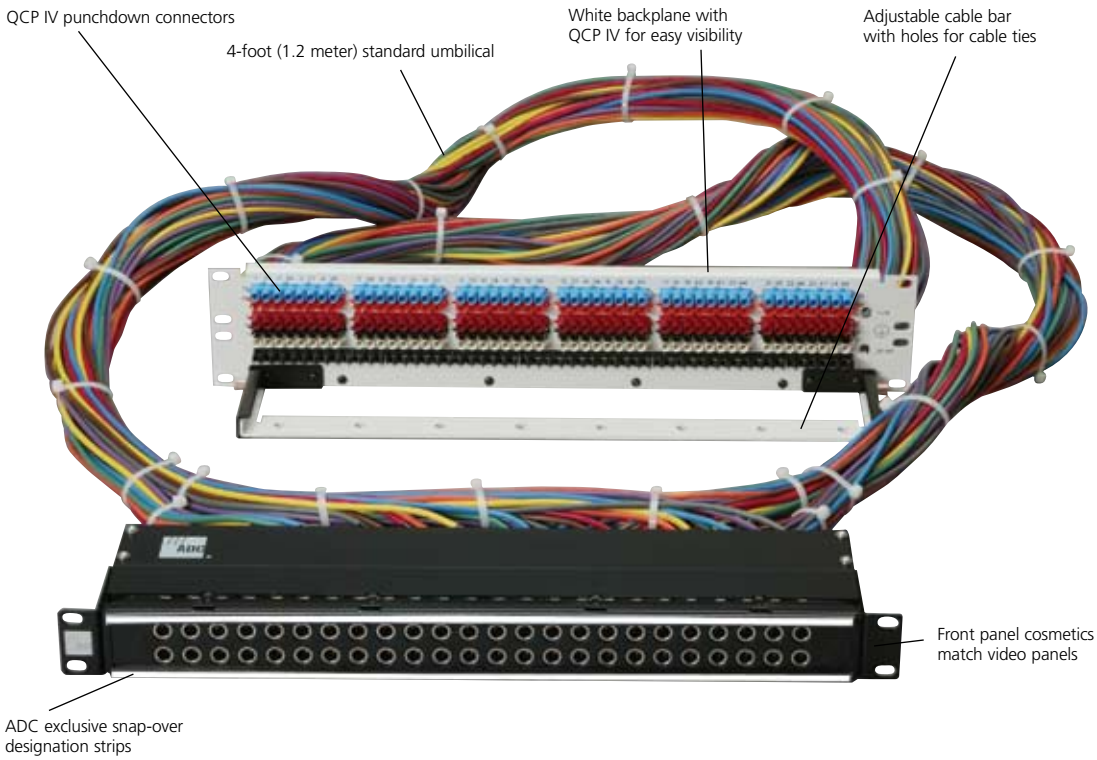
- 1 RU jack panel (1.75"/44 mm) with 2 RU (3.5"/88 mm) or 3 RU (5.25"/132 mm) Ultra Patch termination panel
- 2 RU jack panel (3.5"/88 mm) with 3 RU (5.25"/132 mm) Ultra Patch termination panel
- Standard 4-foot (1.2 meter) umbilical or custom lengths available

Longframe or Bantam Jacks

- Longframe jacks in 2x24 or 2x26 array evenly spaced
- Bantam jacks in 2x48 array evenly spaced

Digital Audio Cable

- Precision 110 Ω digital audio cable meets and exceeds stringent AES requirements



1 RU Longframe/QCP IV Jackfield
(BJF103-4MKIV)

Audio Patching Systems

ProPatch® Umbilical (BJF) Series

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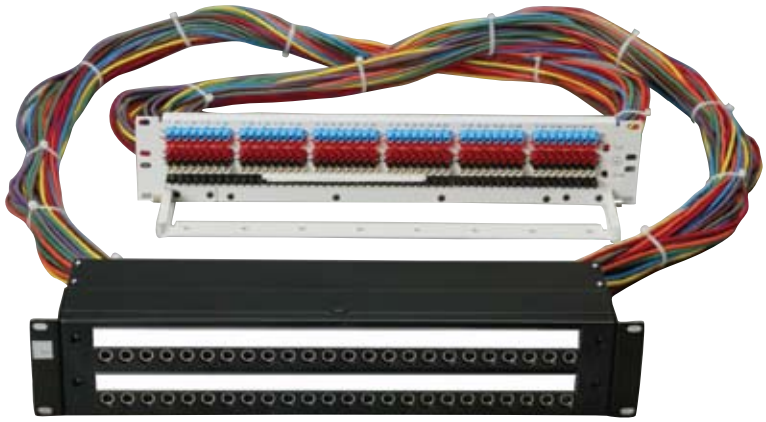


2 RU Longframe/QCPII Ultra Patch
(BJF203-4MKIV)

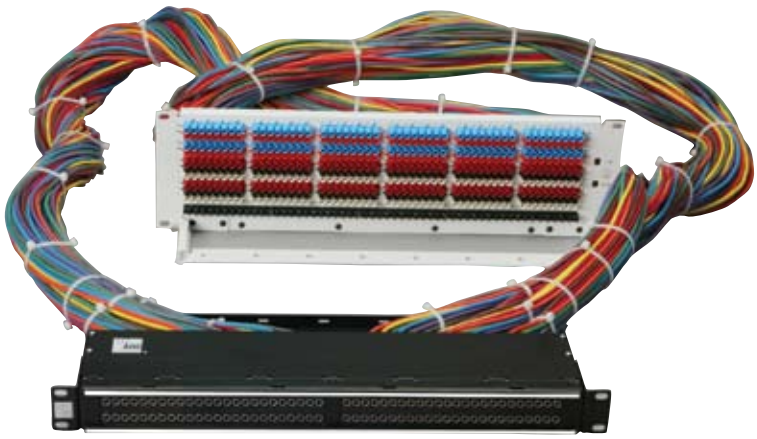
Options

Choice of Terminations

- QCP II or QCP IV punchdown connectors
- Stub end cut to length
- Adjustable strain relief cable bar included standard on Ultra Patch MKIV. Fixed tray on MKII

Full Range of Normalling Options

- No normals
- Normals strapped (fully normalled)
- Half-normalled (monitor top row)
- Normals brought out
- Sleeve normals brought out
- Sleeves strapped
- Bussed grounds



1 RU Bantam/QCPIV Ultra Patch
(BJF303-4MKIV)

Audio Patching Systems

ProPatch® Umbilical (BJF) Series

Ordering Information

Catalog Number

BJF__ __ - __ MK __ __ __ __

Panel Height

1	1 RU 1.75" (44 mm) Longframe jacks, evenly spaced
2	2 RU 3.5" (88 mm) Longframe jacks, evenly spaced
3	1 RU 1.75" (44 mm) Bantam jacks, evenly spaced*
4	2 RU 3.5" (88 mm) Bantam jacks, evenly spaced**

Circuit Configuration

03	Normals brought out to Ultra Patch panel
07	Normals strapped or half-normalled at jacks to Ultra Patch panel
00	Normals brought out to stub end
04	Normals strapped at jacks to stub end

Normal Options

BG	Bussed grounds
HN	Half-normalled
SN	Sleeve normals out
NN	No normals

Connector Type

LEAVE BLANK	QCP
3E	EDAC 3-pin plug

Number of Jacks

LEAVE BLANK	2x24 longframe or 2x48 bantam jacks
26	2x26 longframe jacks

Panel Series

II	MKII panel series, black back panel
IV	MKIV panel series (not available in 2x26), white back panel

Length of Umbilical

4	4' (1.2 m) standard length
	Specify custom length

*For stereo-spaced, add "S" to the catalog number (For example, BJF**S**XXX-)
** For information on these and other custom configurations, please contact ADC.

Note: Use 110 Ω 1% resistors on normals of unstrapped jacks. (Normals out versions only)

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Audio Patching Systems

ProPatch® Umbilical (BJF) Series

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Ordering Information

Description	Catalog Number
Jackfields*	
Normals Out	
1.75" 2x24 longframe, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF103-4MKIV
1.75" 2x26 longframe, 4' umbilical, 3.5" QCP II Ultra Patch*	BJF103-4MKII26
3.50" 2x24 longframe, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF203-4MKIV
3.50" 2x26 longframe, 4' umbilical, 3.5" QCP II Ultra Patch*	BJF203-4MKII26
1.75" 2x48 bantam, 4' umbilical, 5.25" QCP IV Ultra Patch	BJF303-4MKIV
3.50" 2x48 bantam, 4' umbilical, 5.25" QCP IV Ultra Patch	BJF403-4MKIV
Normals Strapped (Fully normalled)	
1.75" 2x24 longframe, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF107-4MKIV
1.75" 2x26 longframe, 4' umbilical, 3.5" QCP II Ultra Patch*	BJF107-4MKII26
3.50" 2x24 longframe, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF207-4MKIV
3.50" 2x26 longframe, 4' umbilical, 3.5" QCP II Ultra Patch*	BJF207-4MKII26
1.75" 2x48 bantam, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF307-4MKIV
3.50" 2x48 bantam, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF407-4MKIV
Half-Normals (Monitor top row)	
3.50" 2x24 longframe, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF207-4MKIVHN
3.50" 2x26 longframe, 4' umbilical, 3.5" QCP II Ultra Patch*	BJF207-4MKII26HN
1.75" 2x24 longframe, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF107-4MKIVHN
1.75" 2x26 longframe, 4' umbilical, 3.5" QCP II Ultra Patch*	BJF107-4MKII26HN
1.75" 2x48 bantam, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF307-4MKIVHN
3.50" 2x48 bantam, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF407-4MKIVHN
No Normals (Requires looping plug or patch cord)	
3.50" 2x48 bantam, 4' umbilical, 3.5" QCP IV Ultra Patch	BJF407-4MKIVNN
Sleeve Normals Brought Out	
3.50" 2x24 longframe, 4' umbilical, 3.5" QCP IV Ultra Patch*	BJF203-4MKIVSN
3.50" 2x48 bantam, 4' umbilical, 5.25" QCP IV Ultra Patch	BJF403-4MKIVSN

* 2x26 panels only available in QCP MKII versions.
Custom panel configurations are available; please contact ADC.

Audio Patching Systems

ProPatch® Lite (PPA and PPB) Series

Solder-Style Panels

ProPatch® Lite is ADC's line of low-cost, do-it-yourself audio patchbays. For ADC quality on a budget, this is the answer. Features include a steel frame with sturdy molded insert for holding jacks, a removable steel strain relief cable bar, ADC's outstanding quality WECO-standard bantam or longframe jacks with solder tails ready to wire, and choice of normalling configurations. Models are available in Bantam and Longframe jacks, in one and two rack unit heights with designation strips and standard jack spacing.

Features

Sturdy Construction

- Steel frame with durable molded insert for holding jacks
- Removable steel cable bar

Two Panel Sizes

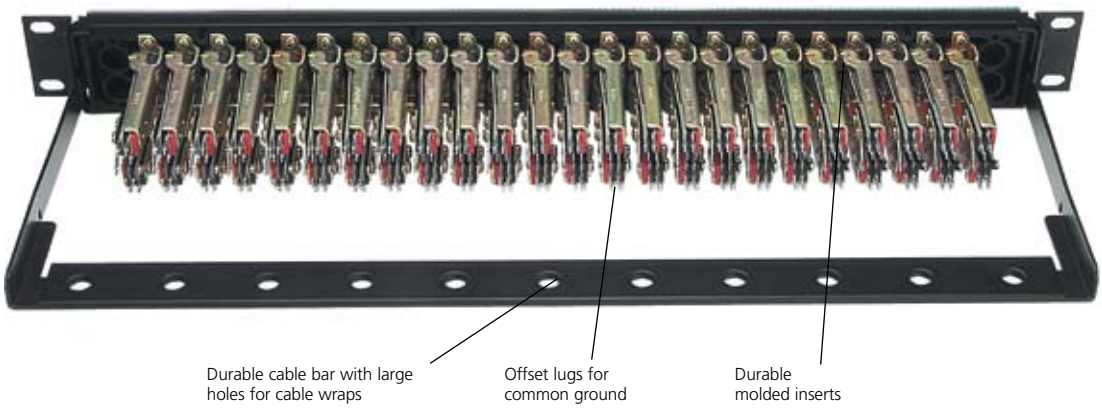
- 1 RU (1.75"/44 mm)
- 2 RU (3.5"/88 mm)

Longframe or Bantam Jacks

- Longframe jacks, 2x24 or 2x26 array, WECO-standard with solder tails ready for wiring
- Bantam jacks, 2x48 array, WECO-standard with solder tails ready for wiring
- Several ground lug styles

Choice of Normals

- Normals out
- Pre-half-normalled, common ground
- Pre-normals strapped, common ground
- Sleeve normal



1RU Stereo-Spaced Longframe 2x24 Panel (rear view)
(PPA1)

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Audio Patching Systems

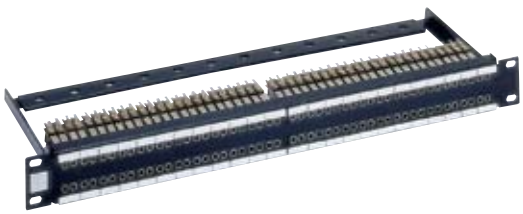
ProPatch® Lite (PPA and PPB) Series

Ordering Information

Ordering Information

Description	Catalog Number
Longframe Panels	
1.75" 2x24 longframe jacks with solder lugs, loaded with 48 PJ339 jacks (see page 61)	PPA1
Half-normalled, common ground	PPA1-HN-CG
Normals strapped, common ground	PPA1-NS-CG
1.75" 2x26 longframe jacks with solder lugs, loaded with 52 PJ339 jacks (see page 61)	PPA1-26
Half-normalled, common ground	PPA1-26-HN-CG
Normals strapped, common ground	PPA1-26-NS-CG
1.75" 2x24 longframe solder jacks with offset ground lugs	PPA1-L204
3.5" 2x24 longframe jacks with solder lugs, loaded with 48 PJ339 jacks (see page 61)	PPA3
Half-normalled, common ground	PPA3-HN-CG
Normals strapped, common ground	PPA3-NS-CG
3.5" 2x26 longframe solder jacks sleeve normal,loaded with 52 PJ242 jacks	PPA3-26-SN
Bantam Panels	
1.75" 2x48 bantam jacks with solder lugs, loaded with 96 PJ839 jacks (see page 61)	PPB1
Half-normalled, common ground	PPB1-HN-CG
Normals strapped, common ground	PPB1-NS-CG
3.5" 2x48 bantam jacks with solder lugs, loaded with 96 PJ839 jacks (see page 61)	PPB3
Half-normalled, common ground	PPB3-HN-CG
Normals strapped, common ground	PPB3-NS-CG
3.5" 2x48 bantam jacks with solder lugs, sleeve normals, loaded with 96 PJ824 jacks	PPB3-SN

For information on this and other custom configurations, please contact ADC.



1 RU Stereo-Spaced Bantam 2x48 Panel
(PPB1)

1 RU Longframe 2x24 Panel
(PPA1-24-NS-CG)

Audio Patching Systems
Accessories

Whatever the accessory you need for your audio patchbay, the quality source is ADC. Products available include patch cords, connectors and jacks, designation strip kits, and more.

High-Performance Audio Patch Cords

ProPatch audio patch cords are engineered for flawless performance and durability. Nickel plating protects plugs against corrosion and ensures smooth insertion, and the exclusive dielectric compound between conductors provides low capacitance for the best signal performance. The flexible cord drapes neatly without kinking, and the plug is molded directly onto the cord for outstanding strain relief.

All ADC patch cords are designed to meet MIL-P642 and are machined after molding for perfect concentricity, ensuring consistent, reliable jack operation.

Features

- Meets demanding MIL-J641 and MIL-P642 standards for plug compliance
- Precision WECO 310 (longframe) and bantam plugs assure proper jack performance
- Quad-star construction for low noise performance
- Models for analog or digital audio
- Standard lengths from .6 m (2 feet) to 1.8 m (6 feet). Other lengths available on request
- Colors include red, green, blue, or black. Some cords also available in yellow or gray
- Conversion patch cords for RS-422 to RJ45. (Conversion patch cords for longframe to bantam, single to dual, are also available. Please contact ADC.)

Catalog Number

Color

R	Red
G	Green
B	Blue
Y	Yellow*
BK	Black
GY	Gray*
DA	Digital audio (black only)

* Non-standard colors. Please contact ADC for these and other non-standard colors.

Cable Length

LEAVE BLANK	Longframe plug
B	Bantam plug

Cable Length

2	.6 m (2')
3	.9 m (3')
4	1.2 m (4')
6	1.8 m (6')

Dual patch cords are available.
Add a "2" after length. For example,
R22 = Red (2') dual longframe
R22B = Red (2') dual bantam

Audio Patching Systems
Accessories

Individual longframe and bantam plugs are available featuring low capacitance injection-molded insulators and precision-machined brass or nickel-plated conductors for smooth insertion and best signal performance. Wire connections are made via miniature screw terminals. These plugs provide the best fit and performance to match ADC patch panels.

Longframe Audio Plugs

Ordering Information

Description	Color	Catalog Number
Three-Conductor Longframe Plugs (field installable)		
Single	Red	PJ051R
Single	Black	PJ051B
Single, nickel-plated	Black	PJ051B-MN
Looping Plugs – internal connections tie together corresponding tip, ring and sleeve conductors to allow looping of jack circuits	Black	PJ4
Hole Plugs – for longframe panels to fill unused jack positions	Black	PJ29

Bantam Audio Plugs

Ordering Information

Description	Color	Catalog Number
Three-Conductor Bantam Plugs		
Single plug; attachable plug; two lugs, shell mounting screw and two lug attachment screws supplied	Red	PJ777R
	Black	PJ777B
Dual plug; attachable plug; four lugs, two shell mounting screws and four lug attachment screws supplied	Black	PJ778B
Looping Plugs – Used to "loop" or patch adjacent jack circuits; plug conductors strapped internally; wired tip to tip, ring to ring and sleeve to sleeve	Black	PJ746
Hole Plugs – For bantam panels to fill unused jack positions	Red	PJ729R
	Black	PJ729B
Single Bantam Circuit Guard Plugs – To identify or block entry to critical circuits; does not actuate circuit	Red	PJ925R
	White	PJ925W
	Black	PJ925B

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Longframe and Bantam Audio Jacks

If anything differentiates ADC patching products from the competition it is the outstanding quality of our jacks. Consistent quality and durability are built into every jack we make. Our jacks meet WECO and MIL-STD-202F standards and include gold, self-cleaning contacts, extended spring beams to prevent metal fatigue and poor contact, and precision-molded insulators.

PJ339 Single Longframe Jack (2 normally closed contacts)

The PJ339 is a three-conductor, single, longframe jack with two normally closed contacts and solder tails. PJ339L has offset solder tails, and PJ339W is the wire-wrap version.

Longframe Audio Jack
(PJ339W)

PJ242 Single Longframe Jack (3 normally closed contacts)

The PJ242 is a three-conductor, single, longframe jack with three normally closed contacts and solder tails. PJ242W is the wire-wrap version.

PJ839 Single Bantam Jack (2 normally closed contacts)

The PJ839 is a three-conductor, single, bantam jack with two normally closed contacts. The PJ839N-SDR comes with solder tails, and the PJ839WN is the wire-wrap version.

Bantam Audio Jack
Shown with Plug Inserted
(PJ839W)

PJ824 Single Bantam Jack (3 normally closed contacts)

The PJ824 is a three-conductor, single, bantam jack with three normally closed contacts. The PJ824N comes with solder tails, and the PJ824WN is the wire-wrap version. (Note that if stacked, these jacks extend beyond the periphery of a 1.75" 1 RU panel.)

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Longframe and Bantam Audio Jacks

Ordering Information

Description	Catalog Number
Longframe Jacks	
3-conductor – 2 normally closed contacts, solder tails, frame style A, stack height .531" (13.49 mm), WECO 239A equivalent	PJ339
3-conductor – 2 normally closed contacts, solder offset lug, frame style A, stack height .531" (13.49 mm)	PJ339L
3-conductor – 2 normally closed contacts, wire-wrap, frame style A, stack height .578" (14.68 mm)	PJ339W
3-conductor – 3 normally closed contacts, solder tails, frame style C, stack height .687" (17.45 mm), WECO 242C equivalent	PJ242
3-conductor – 3 normally closed contacts, wire-wrap, frame style C, stack height .687" (17.45 mm), WECO 242C equivalent	PJ242W
Bantam Jacks	
3-conductor – Rear-mount bantam jack, 2 normally closed contacts, solder tails, stack height .602" (15.29 mm)	PJ839N-SDR
3-conductor – Rear-mount bantam jack, 3 normally closed contacts, solder tails, stack height .756" (19.20 mm)	PJ824N
3-conductor – Rear-mount bantam jack, 3 normally closed contacts, wire-wrap, stack height .750" (19.05 mm)	PJ824WN

Audio Patching Systems
Accessories

Audio Baluns

High-quality audio baluns are available for 110 Ω twisted pair to 75 Ω coaxial matching. Matches BNC to male or female XLR connectors.

Shown: BAL-XLR-BNC-F
BAL-XLR-BNC-M

Designation Strip Kits

ADC produces designation strip kits for all of our patch panels. For details about kits available for your particular model, please contact the Technical Assistance Center.

QCP and EDAC Tools and Accessories

(Genuine EDAC, manufactured in North America)

Individual punchdown tools and complete tool kits are available for both QCP II and QCP IV connections. The same punchdown tool works for both types, but the tips are different. EDAC connector kits are also available for E120, E90, E56, E38 and E3 connectors—genuine EDAC parts.

LSA-PLUS® Punchdown Tool

EDAC
90-shell Kit

EDAC
38-shell Kit

EDAC
Crimp Tool

Q150

Q-115

QB-2

SLVG-1

QRK-25

ProPatch Cord Holder

The ProPatch cord holder accepts up to 75 video or audio patch cords and mounts on the wall or in a rack. (Note: does not hold CVPC-type patch cords.)

Patch Cord Holder
(PPH)

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Audio Patching Systems
Accessories

Ordering Information

Description	Catalog Number
Audio Baluns, 110 Ω to 75 Ω	
BNC to female XLR	BAL-XLR-BNC-F
BNC to male XLR	BAL-XLR-BNC-M
LSA-Plus Punchdown Tool	DM-GIGE-TOOL-KIT
QCP Tools	
Impact tool for MKII panels, with tip*	QB-2
Tool for MKIV panels, with tip*	QB-4
Replacement tip for QB-2	QB-2T
Longer replacement tip for QB-2	QB-2LT
Replacement tip for QB-4	QB-4T
Replacement tip for QB4, long	QB-4LT
Manual tool for MKII panels	Q115
QCP tool holder	Q150
QCP Mark II Replacement Kit; Kit includes instructions and the following: 99 QCP contacts, 25 red, black and white insulators, 12 blue and orange insulators	QRK-25
QCP Mark IV Replacement Kit; 2 red, white, black, blue and orange QCP IV (8x1) punchdown assemblies	QRK-25-MKIV
Sleeving Kit; Kit includes 100 pieces of 2.5" (6.35 cm) clear PVC	SLVG-1
EDAC Tools (Manufactured by Paladin)	
Tool for crimping EDAC connector pins	EDAC-CRIMP-TOOL
EDAC pin removal tool	EDAC-EXTRACTION-TOOL
Receptacle Connector Kits (Manufactured by EDAC)	
Kit for EDAC 90-pin, includes 1 shell, 90 crimp-type pins, and hood	EDAC-90P-SHELL
Kit for EDAC 56-pin, includes 1 shell, 56 crimp-type pins, and hood	EDAC-56P-SHELL
Kit for EDAC 38-pin, includes 1 shell, 38 crimp-type pins, and hood	EDAC-38P-SHELL
Kit for EDAC 3-pin, includes 1 shell and 3 crimp-type pins	EDAC-3P-SHELL
Kit for EDAC 3-pin, complete for 2x24 panel	EDAC-3PIN-2X24-KIT
Kit for EDAC 3-pin, complete for 2x26 panel	EDAC-3PIN-2X26-KIT
Kit for EDAC 3-pin, complete for 2x32 panel	EDAC-3PIN-2X32-KIT
Kit for EDAC 3-pin, complete for 2x48 panel	EDAC-3PIN-2X48-KIT
Molex Kits	
Molex kit, 3-pin receptacle	MOLEX-3F-SHELL
Molex kit, 3-pin plug	MOLEX-3P-SHELL
ProPatch® Cord Holder; Holds up to 75 video or audio patch cords (bantam or longframe); mounts on a wall or in a rack; 14"W x 3"D (35.56 x 7.62 cm). Note: does not hold CVPC-type patch cords	PPH
Printed Circuit Board Audio Jacks	
PCB longframe jack, 3-conductor standard	AJ238-1
PCB threaded longframe jack, 3-conductor with nut and washer	AJ238-1T
PCB longframe right angle jack, 3-conductor	AJ339-1
PCB threaded longframe right angle jack, 3-conductor with nut and washer	AJ339-1T

* QCP II and QCP IV tools are identical but the replaceable tips are different.

Broadcast Connectors

Coax Connectors

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ProAx® Triaxial Camera Connectors

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Broadcast Connectors

Coax Connectors

The ADC line of connectors was designed to simplify installation while providing the ultimate in performance. The ADC BNC, F and RCA connectors share common crimp dimensions which eliminates the need to have different tools on site. In addition the connectors also use the same strip dimensions which to reduce installation time when multiple connector types are required.

Types of Connectors

- BNC
  - Straight BNC Plugs
  - Right Angle Plugs
  - Bulkhead Jacks
- F Connectors
- RCA
- LCC Connectors

ADC Designation	Cable Outer Jacket Diameter				Center Conduit Outside Diameter				Cable Dielectric Outside Diameter			
	Inches Range		MM Range		Inches Range		MM Range		Inches Range		MM Range	
	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper
1	0.235	0.245	5.97	6.22	0.030	0.033	0.76	0.83	0.140	0.150	3.56	3.81
2	0.220	0.242	5.59	6.15	0.022	0.025	0.56	0.62	0.140	0.150	3.56	3.81
3	0.127	0.127	3.23	3.23	0.015	0.018	0.38	0.44	0.077	0.102	1.96	2.59
3TMX	0.158	0.178	4.01	4.52	0.016	0.019	0.41	0.48	0.102	0.106	2.59	2.69
4	0.305	0.305	7.75	7.75	0.030	0.033	0.76	0.83	0.185	0.198	4.70	5.03
5	0.270	0.281	6.86	7.14	0.030	0.033	0.76	0.83	.0144	0.164	3.66	4.17
6	0.199	0.212	5.05	5.38	0.030	0.033	0.76	0.83	0.135	0.140	3.43	3.56
7	0.155	0.178	3.94	4.52	0.019	0.022	0.48	0.55	0.095	1.102	2.41	2.59
8	0.275	0.288	6.99	7.32	0.038	0.040	0.97	1.02	0.180	0.185	4.57	4.70
9	0.275	0.305	6.99	7.75	0.038	0.040	0.97	1.02	0.180	0.198	4.57	5.03
10	0.234	0.257	5.94	6.53	0.038	0.040	0.97	1.02	0.180	0.187	4.57	4.75
11	0.265	0.330	6.73	8.38	0.022	0.025	0.56	0.62	0.142	0.164	3.61	4.17
12	0.150	0.178	3.81	4.52	0.017	0.019	0.43	0.47	0.099	0.102	2.51	2.59
13	0.146	0.178	3.71	4.52	0.019	0.022	0.48	0.55	0.090	1.102	2.29	2.59
14	0.142	0.187	3.61	4.75	0.012	0.013	0.30	0.33	0.068	0.085	1.73	2.16
15	0.193	0.232	4.90	5.89	0.019	0.022	0.48	0.55	0.122	0.259	3.10	6.58
16	0.103	0.110	2.62	2.79	0.015	0.018	0.38	0.44	0.060	0.070	1.52	1.78
17	0.271	0.271	6.88	6.88	0.030	0.033	0.76	0.83	0.185	0.198	4.70	5.03
19	0.125	0.171	3.18	4.34	0.019	0.022	0.48	0.55	0.078	0.102	1.98	2.59
20	0.249	0.288	6.32	7.32	0.038	0.040	0.97	1.02	0.182	0.187	4.62	4.75
21	0.193	0.232	4.90	5.89	0.030	0.033	0.76	0.83	0.122	0.102	3.10	2.59
22	0.149	0.178	3.78	4.52	0.017	0.019	.043	0.47	0.098	0.102	2.49	2.59
24	0.348	0.380	8.84	9.65	0.064	0.065	1.63	1.65	0.280	0.300	7.11	7.62
25	0.400	0.412	10.16	10.46	0.064	0.065	1.63	1.65	0.280	0.300	7.11	7.62
26	0.177	0.187	4.50	4.75	0.024	0.030	0.61	0.76	0.110	0.128	2.79	3.25
27	0.310	0.326	7.78	8.28	0.051	0.053	1.30	1.35	0.225	0.244	5.72	6.20
28	0.077	0.132	1.96	3.35	0.018	0.022	0.46	0.56	0.120	0.102	3.05	2.59
29	0.292	0.308	7.41	7.83	0.040	0.042	0.97	1.07	0.180	0.207	4.57	5.26
31	0.100	0.134	2.54	3.40	0.0122	0.016	0.31	0.41	0.056	0.068	1.41	1.73
32	0.102	0.134	2.59	3.40	0010	0.017	0.25	0.43	0.045	0.068	1.14	1.73

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Broadcast Connectors

Coax Connectors – Straight BNC Connectors

ADC's true 75 Ω BNC connectors are the most reliable and universally accepted method of terminating coaxial cable in the market today. Outstanding electrical performance is achieved by unique design elements in the industry's truest 75 Ω connector. Precision-molded insulators with locking gold-plated center conductors ensure true 75 Ω characteristic impedance. Innovative features result in significant reduction of impedance mismatch throughout the network and improved transmission reliability in digital applications.

An idea whose time has come, the new notched BNC series from ADC makes it easy to spot BNC connectors that are not properly latched to BNC jacks. This is especially helpful with high-density coax panels such as ADC's midsize video product offering where terminations are very tight, and in the back of dark racks.

Features

- Designed to exceed the rigorous demands of today's telecom, CATV and broadcast environments including SMPTE 424M 1080p, 259, 274, and 292M standards
- Outstanding electrical performance beyond 3 GHz
- Gold-plated, locking center conductor
- True 75 Ω characteristic impedance end-to-end
- .625" crimp sleeve for greater pulloff force
- Compatible with hex, square, and 12-point crimp tools and select competitive crimp tools and die sets
- 100 percent guided mating
- Tarnish-resistant, nickel-plated body and machine bayonet
- Sizes for multiple cable types
- Meets or exceeds MIL-C-39012 requirements
- 100% North American/European precision components
- Strip lengths common between sizes and types (except for Belden 7731/CommScope 7530, RG11 Cable)

Broadcast Connectors

Coax Connectors – Straight BNC Connectors

Ordering Information

Description	Connector Crimp Areas				Catalog Number		
	Hex Flats Distance		Center Pin				
Cable Numbers	**Inch**	**mm**	**Inch**	**mm**	**Crimp Die**	**Single**	**Bulk** (100)
734A/D, 734AP,9259, 1505A, 1505F, 9100, 9165, VPM2000, CV752, FM59, RCCH, 9167, M8023, LV61, 8241F, Image720	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	BNC-1-N	BNC-1B-N
RG59, RG59B/U, 9209, 8279, 8241, 9244	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	BNC-2-N	BNC-2B-N
735A, NT735	0.178	4.52	.042	1.07	WD-2	BNC-3-N	BNC-3B-N
CECBV-75-2	0.197	5.00	.040	1.07	WD-3	BNC-3TMX	-
728, 8281, 8281B, 8281F, VP618PE, VP618PE, VP618M, CV752, CAMPLEX 1	0.324	8.23	.042	1.07	WD-1	BNC-4-N	BNC-4B-N
1187A, HEC-2, F-HEC59, F59SSEF	0.324	8.23	.042	1.07	WD-1	BNC-5-N	BNC-5B-N
1506A, 1824A, VPM2000TS, VPM2000TK, CV7559-PLEN	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	BNC-6-N	BNC-6B-N
8218, 7538, 0222, CV75SM, RCC	0.178	4.52	.042	1.07	WD-2	BNC-7	-
1694A, 9248, 9058, VSD2001, VSD2001TS, RG6SD, 1.0/4.8, M8024, Image1000, 1189AP, 9116P	0.278	7.06	.042	1.07	WD-4, WD-5	BNC-8-N	BNC-8B-N
1189A	0.324	8.23	.042	1.07	WD-1	BNC-9-N	-
1695A, RG6SD-PLEN	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	BNC-10-N	BNC-10B-N
9268, S-HEC 89, 6605, PSF1/3	0.324	8.23	.042	1.07	WD-1	BNC-11	-
1865, 8218, 7537, RGB250	0.178	4.52	.042	1.07	WD-2	BNC-12-N	-
1855A, RGBSC250, VDM250, VDM230, DSM1 (3,4,5) M8025	0.178	4.52	.042	1.07	WD-2	BNC-13-N	BNC-13B-N
BT3002, T2C75024	0.178	4.52	.042	1.07	WD-2	BNC-14	-
8216, 9239, 83269, RGBSC260TS, VPM260, 1282P, 1277	0.178	4.52	0.42	1.07	WD-2	BNC-16-N	BNC-16B-N
88281, VP618TK, CV752-PLEN	0.324	8.23	.042	1.07	WD-1	BNC-17-N	BNC-17B-N
V45466-D1-B					WD-2	BNC-18	-
LL79301	0.178	4.52	.042	1.07	WD-2	BNC-19-N	-
8228, 82120, H126D02	0.278	7.06	.042	1.07	WD-4	BNC-20-N	BNC-20B
8219, RG58	0.255	6.48	0.42	1.07	WD-1, WD-2, WD-3, WD-5	BNC-21-N	-
1167A, 1418B RGB	0.178	4.52	.042	1.07	WD-2	BNC-22	-
7732A	0.384	9.75	.068	1.73	WD-6	BNC-24	-
7731A, 5906, VHD1100, 89292, Image2000, PR611C4, L7CFB	0.384	9.75	.068	1.73	WD-6	BNC-25-N	BNC-25B-N
0.6/2.8, SDV-25, 3CFB, Image360	0.197	5.00	.042	1.73	WD-3	BNC-26-N	BNC-26B-N
7530, VHD7000, 7855A	0.278	7.06	.042	1.07	WD-1	BNC-27	-
LL92833	0.178	4.52	.042	1.07	WD-2	BNC-28	-
5740, 5741, L-5CFB	0.324	8.23	.042	1.07	WD-1	BNC-29	-
SFYZ-75-2-1, PD-847	0.178	4.52	.042	1.07	WD-2	BNC-30	-
DT179, 1522A; 1808A	0.178	4.52	.042	1.07	WD-2	BNC-31-N	BNC-31B-N
Condumex Mini 75 Cable	0.178	4.52	.042	1.07	WD-2	BNC-32	-
Draka 1.0/4.8 AF	0.197	5.00	.042	1.07	WD-3	BNC-33-N	BNC-33B-N

Broadcast Connectors

Coax Connectors – Right Angle BNC Connectors

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Features

- Right angle design alleviates stress associated with bending cable
- Provides increased density and Improves overall cable management
- Bulk packaging available
- Center conductor pins and crimp sleeves are fully interchangeable with ADC's straight plugs for same cable type

Ordering Information

Cable Numbers	Connector Crimp Areas				Catalog Number		
	Hex Flats Distance		Center Pin				
	Inch	mm	Inch	mm	Crimp Die	Single	Bulk (100)
Right Angle BNC Plug Connectors							
734A/D, 734AP,9259, 1505A, 1505F, 9100, 9165, VPM2000, CV752, FM59, RCCH, 9167, M8023, LV61, 8241F, Image720	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	BNC-RA-1	BNC-RA-1-B
RG59, RG59B/U, 9209, 8279, 8241, 9244	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	BNC-RA-2	BNC-RA-2-B
735, NT735	0.178	4.52	.042	1.07	WD-2	BNC-RA-3	BNC-RA-3-B
8281B, 8281F, VP618PE, VP618M	0.324	8.23	.042	1.07	WD-1	BNC-RA-4	BNC-RA-4-B
8218, 1855A, 7538	0.178	4.52	.042	1.07	WD-2	BNC-RA-7	BNC-RA-7-B
1694A, 9248, 9058, VSD2001, VSD2001TS, RG6SD, 1.0/4.8, M8024, Image1000, 1189AP, 9116P	0.278	7.06	.042	1.07	WD-4 WD-5	BNC-RA-8	BNC-RA-8-B

Straight/Right Angle BNC Connectors

ELECTRICAL

Characteristic Impedance:	75 Ω
Voltage Rating:	1000 Volts RMS
Insertion Loss:	< 0.6 dB 1 MHz to 1 GHz (measured with 1 meter of 728 cable)
Return Loss:	Better than 35 dB to 1 GHz; 30 dB to 2 GHz; 26 dB to 3 GHz
Contact Resistance:	.030 Ω maximum change post environmental
Insulation Resistance:	200 MΩ minimum change

MECHANICAL

Mechanical Durability:	500 cycles minimum
Center Contact Retention:	6 lbs. min
Coupling Mechanism:	100 lbs. min
Cable Pulloff Force:	Dependent on cable size
Cable Bend and Twist:	500 cycles min
Force to Engage/Disengage:	Torque 2.5 in/lb max; longitudinal force 3 lbs. max
Interface Dimension:	MIL-C-39012 except 75 Ω

ENVIRONMENTAL

Thermal Shock:	-40° C to 65° C operating; -55° C to 85° C, non-operating
Moisture Resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent Resistance:	MIL-STD-202 Method 215

FINISH

Body/Bayonet:	Tarnish-resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1, Grade C, Class 1; requires .042" crimp station die

Broadcast Connectors

Coax Connectors – Bulkhead Jack Connectors

Features

- Easier, more reliable termination; gold-plated locking center conductor ensures proper alignment during termination
- 100 percent guided mating
- Exclusive closed-entry contact prevents center conductor damage from non-standard BNCs or test probes
- Eliminates one termination point when used as a bulkhead connector

Ordering Information

Cable Numbers	Connector Crimp Areas				Crimp Die	Catalog Number
	Hex Flats Distance		Center Pin			
	Inch	mm	Inch	mm		
Bulkhead Jack Connectors						
734A/D, 734AP,9259, 1505A, 1505F, 9100, 9165, VPM2000, CV752, FM59, RCCH, 9167, M8023, LV61, 8241F, Image720	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	BNC-BHJ-1
CECBV-75-2	0.197	5.00	0.04	1.07	WD-3	BNC-BHJ-3TMX
1694A, 9248, 9058, VSD2001, VSD2001TS, RG6SD, 1.0/4.8, M8024, Image1000, 1189AP, 9116P	0.278	7.06	.042	1.07	WD-4 WD-5	BNC-BHJ-8
1865, 1855A, RGBSC250	0.178	4.52	.042	1.07	WD-2	BNC-BHJ-13
8216, 9239, 83269, RGBSC260TS, VPM260, 1282P, 1277	0.178	4.52	.042	1.07	WD-2	BNC-BHJ-16

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Broadcast Connectors

Coax Connectors – F Connectors

ADC's high-performance F connectors are designed for demanding digital applications where a high-quality, high-performance F connector is required. These connectors provide superior return loss (-30 dB to 3 GHz) and are the perfect choice for use in digital headends, satellite down links, and high-performance customer premises applications.

Features

- All-crimp two-piece design goes together the same as a BNC
- Combines the superior electrical performance of a BNC with the superior RF performance of an F connector
- True 75 Ω design for performance up to 3 GHz
- Crimp-on center pin provides outstanding connection rather than relying on the copper center conductor of the cable
- Gold-plated locking center pin just like a BNC connector
- Diamond-knurled crimp hub and long .500" crimp sleeve provides higher pull-off force than typical F connector types
- Long 3/8" wrench flats make connector threading easier
- Precision machined parts for greater unit to unit consistency
- Exclusive molded center conductor insulator provides a truer impedance match over PVC and Teflon types
- Same strip and crimp dimensions as our standard BNC plugs, common tooling
- Cable sizes for RG59, RG187, and RG6 available
- Termination plugs in 1% and precision 0.1% available

F Connectors

ELECTRICAL	
Characteristic Impedance:	75 Ω
Voltage Rating:	1000 Volts RMS
Insertion Loss:	< 0.6 dB 1 MHz to 1 GHz (measured with 1 meter of 728 cable)
Return Loss:	Better than 35 dB to 1 GHz; 30 dB to 2 GHz; 26 dB to 3 GHz
Contact Resistance:	.030 Ω max change post environmental
Insulation Resistance:	200 MΩ min change
MECHANICAL	
Mechanical Durability:	500 cycles min
Center Contact Retention:	6 lbs. min
Coupling Mechanism:	80 lbs. min
Cable Pulloff Force:	Dependent on cable size
Cable Bend and Twist:	500 cycles min
Coupling Nut Proof Torque:	Torque 20 in/lb min
Interface Dimension:	See Interface Detail below
ENVIRONMENTAL	
Thermal Shock:	-40° C to 35° C operating; -55° C to 85° C, non-operating
Moisture Resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent Resistance:	MIL-STD-202 Method 215
FINISH	
Body:	Tarnish-resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1, Grade C, Class 1; requires .042" crimp station die

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Broadcast Connectors

Coax Connectors – F Connectors

Ordering Information

Description	Connector Crimp Areas					Catalog Number	
	Hex Flats Distance		Center Pin				
Cable Numbers	Inch	mm	Inch	mm	Crimp Die	Single	Bulk (100)
F Connectors							
734A/D, 734AP,9259, 1505A, 1505F, 9100, 9165, VPM2000, CV752, FM59, RCCH, 9167, M8023, LV61, 8241F, Image720	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	CF-1	CF-1B
1187A, HEC-2, F-HEC59	0.324	8.23	.042	1.07	WD-1	CF-5	-
1694A, 9248, 9058, VSD2001, VSD2001TS, RG6SD, 1.0/4.8, M8024, Image1000, 1189AP, 9116P	0.324	8.23	.042	1.07	WD-1	CF-8	CF-8B
1189A	0.324	8.23	.042	1.07	WD-1	CF-9	-
1855A, RGBS250, VDM250, VDM230, DSM1 (3,4,5) M8025	0.178	4.52	.042	1.07	WD-2	CF-13	CF-13B
5740, 5741, L-5CFB	0.324	8.23	.042	1.07	WD-1	CF-29	-
DT179, 1522A; 1808A	0.178	4.52	.042	1.07	WD-2	CF-31	-

Broadcast Connectors

Coax Connectors – RCA Connectors

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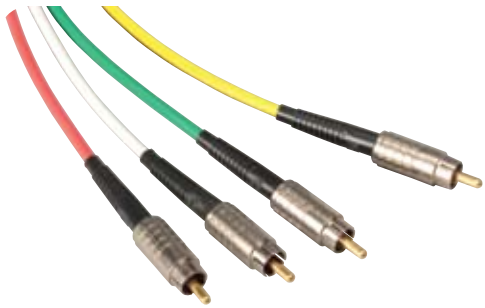
The venerable RCA connector is still the universally accepted method of terminating coaxial cable for audio and video signals in prosumer-type products such as video decks, DVDs, video projectors and HD monitors. ADC's precision RCA connectors are designed for demanding professional environments, offering a performance-driven product with outstanding mechanical and electrical characteristics, as well as easy BNC-type assembly.



Features

- Outstanding electrical performance up to 2 GHz
- 50 microinch gold-plated, locking internal center conductor crimps to cable
- Exclusive closed-entry center pin contact RCA pin/receptacle
- Nominal 75 Ω characteristic impedance end-to-end
- Easy preparation and installation; installs the same as a standard BNC with BNC tooling
- Compatible with hex, square, and 12-point crimp tools and select competitive crimp tool and die sets
- Tarnish-resistant, nickel-plated body; 50 microinch gold-plated center pin, or all gold-plated version (shown)
- Cable sizes for RG59, RG187 and RG6 available; uses same tooling
- Meets or exceeds MIL-STD-202F requirements

Broadcast Connectors

Coax Connectors – RCA Connectors

RCA Connectors

ELECTRICAL

Characteristic Impedance:	75 Ω typical
Voltage Rating:	1000 Volts RMS
Insertion Loss:	< 0.6 dB 1 MHz to 1 GHz (measured with 1 meter of 728 cable)
Return Loss:	Better than 26 dB up to 200 MHz
Contact Resistance:	.030 Ω maximum change post environmental
Insulation Resistance:	200 MΩ minimum change

MECHANICAL

Mechanical Durability:	500 cycles min
Center Contact Retention:	6 lbs. min
Cable Pulloff Force:	Dependent on cable size
Cable Bend and Twist:	500 cycles min
Force to Engage/Disengage:	Longitudinal force 3 lbs. typical
Interface Dimension:	See Interface Detail below

ENVIRONMENTAL

Thermal Shock:	-40° C to 35° C operating; -55° C to 85° C, non-operating
Moisture Resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 201
Solvent Resistance:	MIL-STD-202 Method 215

FINISH

Body:	Tarnish-resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1, Grade C, Class 1; requires .042" crimp station die

Ordering Information

Description	Connector Crimp Areas					Catalog Number	
	Hex Flats Distance		Center Pin				
Cable Numbers	in	mm	in	mm	Crimp Die	Single	Bulk (100)
RCA Connectors							
734A/D, 734AP,9259, 1505A, 1505F, 9100, 9165, VPM2000, CV752, FM59, RCCH, 9167, M8023, LV61, 8241F, Image720	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	CRCA-1	CRCA-1B
RG59, RG59B/U, 9209, 8279, 8241, 9244	0.255	6.48	.042	1.07	WD-1, WD-2, WD-3, WD-5	CRCA-2	-
728, 8281, 8281B, 8281F, VP618PE, VP618PE, VP618M, CV752, CAMPLEX 1	0.324	8.23	.042	1.07	WD-1	CRCA-4	-
1187A, HEC-2, F-HEC59	0.324	8.23	.042	1.07	WD-1	CRCA-5	-
1694A, 9248, 9058, VSD2001, VSD2001TS, RG6SD, 1.0/4.8, M8024, Image1000, 1189AP, 9116P	0.324	8.32	.042	1.07	WD-1	CRCA-8	CRCA-8B
1855A, RGBS250, VDM250, VDM230, DSM1 (3,4,5) M8025	0.178	4.52	.042	1.07	WD-2	CRCA-13	CRCA-13B
8216, 9239, 83269, RGBSC260TS	0.178	4.52	.042	1.07	WD-2	CRCA-16	-

Broadcast Connectors

Coax Connectors – Terminating Plugs

BNC Terminations Plugs

ELECTRICAL

Characteristic Impedance:	75 Ω
Termination Resistance:	BNC-TP-2, 75 Ω + 0.1% (resistor value); BNC-TP-1, 75 Ω + 1.0% (resistor value)
Return Loss:	BNC-TP-2, better than -29 dB return loss to 3.0 GHz; BNC-TP-1, better than -16 dB return loss to 2.0 GHz

MECHANICAL

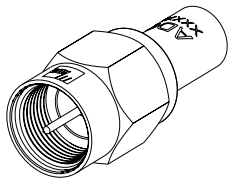
Mechanical Durability:	500 cycles min
Coupling Mechanism:	100 lbs. min
Mechanical Shock:	MIL-STD-202, Method 213
Interface Dimensions:	MIL-C-39012 except 75 Ω

ENVIRONMENTAL

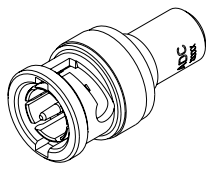
Thermal Shock:	-40° C to 65° C -55° C to 85° C, non-operating;
Moisture Resistance:	0% to 95% relative humidity, tested to MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Vibration:	MIL-STD-202 Method 201

FINISH

Body/Bayonet:	Tarnish resistant electroless nickel plating
Center Conductor:	50 millionth inch gold plating MIL-C-45204 Type 1, Grade C, Class 1



Precision 0.1%
F Terminating Plug
(CF-TP2)



Precision 0.1%
BNC Terminating Plug
(BNC-TP2)

Ordering Information

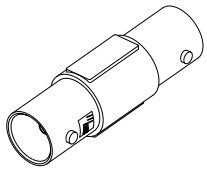
Description	Catalog Number
BNC Terminating Plug	
1% 75 Ω resistor	BNC-TP1
Precision 0.1% 75 Ω resistor	BNC-TP2
F Terminating Plug	
1% 75 Ω resistor	CF-TP1
Precision 0.1% 75 Ω resistor	CF-TP2
Accessories	
Hex nut for .505" bulkhead connectors	TPC-1B
Locking washer for .505" bulkhead connectors	TPC-1C
Insulating shoulder washer for .505" bulkhead connectors	HDW-101611
Hex nut for .440" bulkhead connectors	BNC-HN440
Locking washer for .440" bulkhead connectors	BNC-LW440
Insulating shoulder washer for .440" bulkhead connectors	BNC-IW440
2.5 mm x 5 mm Phillips pan head screw for BNC-PC-RRA	SA1089-00

Broadcast Connectors

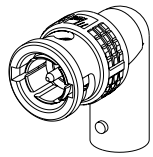
Coax Connectors – Adapters and Bulkheads

Features

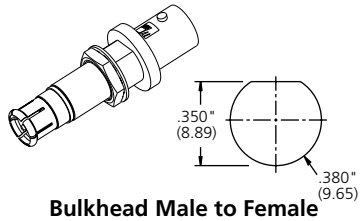
- Improved performance – true 75 Ω characteristic impedance
- Outstanding electrical performance to 3 GHz
- Bulkhead feedthrough available with or without panel isolation
- Meets the performance requirements of MIL-A-55339 for radio frequency coaxial adapters
- Gold-plated, closed-entry contact center conductor to prevent damage during test or mating plug termination



Straight Adapter
(BNC-STRT-ADPT)



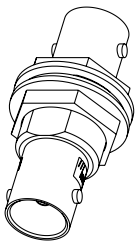
Right Angle Adapter
(BNC-RA-ADP)



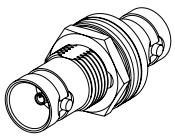
Bulkhead Male to Female
(BHFT-MF)

Ordering Information

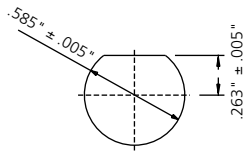
Description		Catalog Number
BNC Adapters		
BNC straight adapter		BNC-STRT-ADPT
BNC right angle adapter		BNC-RA-ADP
BNC to BNC Bulkhead Feedthrough		
for .505"/.585" cutout		BHFT1
for .440"/.505" cutout		BHFT-I2
with panel isolation washers		BHFT-I1
Bulk 100 pack version of above		BHFT-I1B
Bulkhead Male to Female		BHFT-MF
Bulkhead Feedthrough Adapters		
F to BNC	No hardware	BHFT0-FB
	With hardware	BHFT1-FB
	Insulated with hardware	BHFT-FB-I1
	Insulated with hardware, bulk 100 count	BHFT-FB-I1-B
F to F	No hardware	BHFT0-FF
	With hardware	BHFT1-FF
	Insulated with hardware	BHFT-FF-I1
	Insulated with hardware, bulk 100 count	BHFT-FF-I1-B



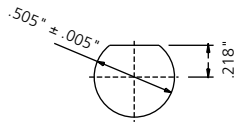
BNC to BNC Bulkhead
Feedthrough
(BHFT-I1)



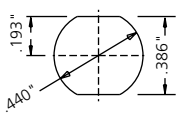
(BHFT-I2)



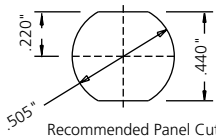
Recommended Panel Cutout
With Insulating Washer
(Max Thickness .250)



Recommended Panel Cutout
Without Insulating Washer
(Max Thickness .250)



Recommended Panel Cutout
Without Isolation Washer
(Max Panel Thickness: .250)



Recommended Panel Cutout
With Isolation Washer
(Max Panel Thickness: .250)

Broadcast Connectors

Coax Connectors – Adapters and Bulkheads

BNC Adapters

ELECTRICAL

Characteristic Impedance:	75 Ω
Voltage Rating:	1500 Volts RMS
Insertion Loss:	Better than 0.20 dB 1 MHz to 2 GHz
Return Loss:	Better than 40 dB to 1 GHz; 30 dB to 2 GHz; 26 dB to 3 GHz
Contact Resistance:	.030 Ω maximum change post environmental
Insulation Resistance:	5000 MΩ minimum change

MECHANICAL

Mechanical Durability:	500 cycles min
Center Contact Retention:	6 lbs. min
Coupling Mechanism:	100 lbs. min
Cable Bend and Twist:	500 cycles min
Force to Engage/Disengage:	Torque 2.5 in/lb max; longitudinal force 3 lbs. max
Interface Dimension:	MIL-C-39012 except 75 Ω

ENVIRONMENTAL

Thermal Shock:	-40° C to 65° C operating; -55° C to 85° C, non-operating
Moisture Resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 204, Test Condition B
Solvent Resistance:	MIL-STD-202 Method 215

FINISH

Body/Bayonet:	Tarnish-resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1,Grade C, Class 1

Recessed BNC

ELECTRICAL

Characteristic Impedance:	75 Ω
Voltage Rating:	1500 Volts RMS
Insertion Loss:	Better than 0.20 dB 1 MHz to 2 GHz
Return Loss:	Better than 40 dB to 1 GHz; 30 dB to 2 GHz; 26 dB to 3 GHz
Contact Resistance:	.030 Ω maximum change post environmental
Insulation Resistance:	5000 MΩ minimum change

MECHANICAL

Mechanical Durability:	500 cycles minimum
Center Contact Retention:	6 lbs. min
Coupling Mechanism:	100 lbs. min
Cable Bend and Twist:	500 cycles min
Force to Engage/Disengage:	Torque 2.5 in/lb max; longitudinal force 3 lbs. max
Interface Dimension:	MIL-C-39012 except 75 Ω

ENVIRONMENTAL

Thermal Shock:	-40° C to 65° C operating; -55° C to 85° C, non-operating
Moisture Resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (Salt Spray):	MIL-STD-202 Method 101, Test Condition B
Flammability:	UL 94-VO rated (center conductor insulator)
Vibration:	MIL-STD-202 Method 204, Test Condition B
Solvent Resistance:	MIL-STD-202 Method 215

FINISH

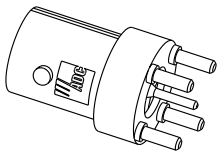
Body/Bayonet:	Tarnish-resistant electroless nickel plating
Center Conductor:	50 millionths inch gold plating MIL-G-45204 Type 1,Grade C, Class 1

Broadcast Connectors

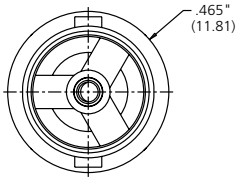
Coax Connectors – PCB Mount BNC Connectors

Ordering Information

Description	Catalog Number
BNC PCB mount straight staked	BNC-PC-V1
BNC PCB mount threaded right angle	BNC-PC-RTRA
BNC PCB mount threaded straight	BNC-PC-STRT
BNC PCB mount right angle screw mount	BNC-PC-RRA
BNC PCB mount right angle screw mount with screw	BNC-PC-RRA-1
BNC square panel mount	BNC-BHJ-PNL-3TMX



BNC-PC-V1



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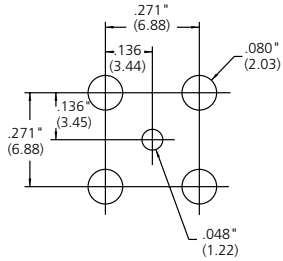
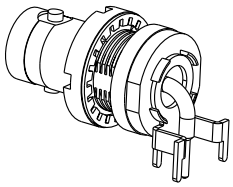
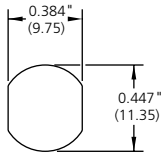


Mounting Template



BNC-PC-RTRA



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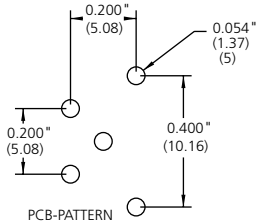

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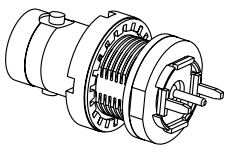
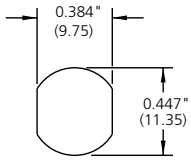


BNC-PC-STRT



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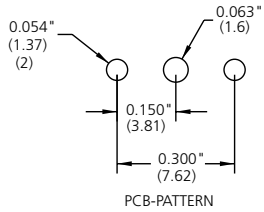
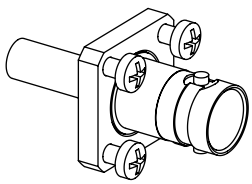
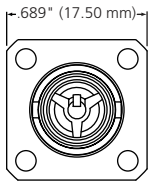


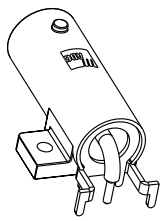
Mounting Template



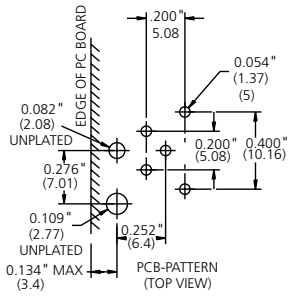
BNC-BHJ-PNL-3TMX



Hole Cutout



BNC-PC-RRA



Mounting Template

Broadcast Connectors

Coax Connectors – Tools

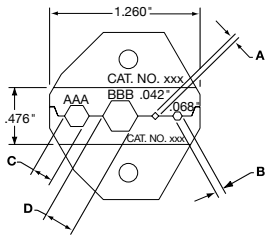
Features

- Durable ergonomic handle provides greater comfort
- Fully adjustable for preloading to maintain die set alignment
- Exceptional life, rated for 100,000 crimp cycles
- Available in two handle sizes
- Highest mechanical advantage in the industry, reduces fatigue during crimping
- Precision-manufactured by Pressmaster in Sweden

BNC Crimping Tool
(WT-2)

BNC Insertion Tool
(BT2000-12)

12 Point
Crimp Tool
(WT-C12)



Die Set Dimensions

Ordering Information

Description	Catalog Number
Crimp Tools for ADC die sets	
Ergonomic handle	WT-2
Long ergonomic handle	WT-3
BNC Insertion Tool	
6" handle	BT2000-06
12" handle	BT2000-12
24" handle	BT2000-24
F Connector Insertion Tool with 6" handle	SC-FG
Crimp Tool, 12 point For BNC, F, RCA and LCC	WT-C12

BNC, F and RCA and LCC Die Sets

Ordering Information

Description				Catalog Number
"A" Center Wire	**"B" Center Wire**	**"C" Crimp Sleeve**	**"D" Crimp Sleeve**	**Die Set**
.042"/1.07 mm	.068"/1.73 mm	0.255"/6.48 mm	0.324"/8.23 mm	WD-1
.042"/1.07 mm	.068"/1.73 mm	0.178"/4.52 mm	0.255"/6.48 mm	WD-2
.042"/1.07 mm	.068"/1.73 mm	0.197"/5.00 mm	0.255"/6.48 mm	WD-3
.042"/1.07 mm	.068"/1.73 mm	0.197"/5.00 mm	0.278"/7.06 mm	WD-4
.042"/1.07 mm	.068"/1.73 mm	0.255"/6.48 mm	0.278"/7.06 mm	WD-5
.068"/1.73 mm	-	0.384"/9.76mm	-	WD-6
.042"/1.07 mm	.068"/1.73 mm	0.178"/4.52 mm	0.278"/7.06 mm	WD-7
.042"/1.07 mm	.068"/1.73 mm	0.255"/6.48 mm	0.324"/8.23 mm	WD-1-SER*
.042"/1.07 mm	.068"/1.73 mm	0.178"/4.52 mm	0.255"/6.48 mm	WD-2-SER*

* SER units feature a unique serial number that imprints on the crimp sleeve. This is useful for tracking tooling or installation quality.

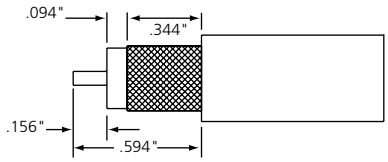
Broadcast Connectors

Coax Connectors – Tools

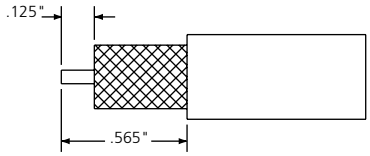
Ordering Information

Description	RG	Connector Type	Catalog Number
Cable Stripper Tool Kit			
Complete Manual Stripper Tool Kit; Includes stripper cassette, memory and tool	187	BNC-3, BNC-7, BNC-12, BNC-13, BNC-16, BNC-2	STC-13B
	59	BNC-1, BNC-2, BNC-6, BNC-10	STC-12B
	6	BNC-4, BNC-5, BNC-8, BNC-9, BNC-11, BNC-17	STC-11B
	11	BNC-25	STC-25B
Individual Tools			
Stripper Cassette Replacement cutting blades for the manual stripper tool		All except BNC-25	CCS-BLK
Memory for Manual Stripper Tool Determines how deep each blade on the stripper cassette will cut into cable. Can be adjusted for most cable types.		BNC-4, BNC-5, BNC-8, BNC-9, BNC-11	CCS-1
		BNC-1, BNC-2, BNC-6, BNC-10	CCS-2
		BNC-3, BNC-7, BNC-12, BNC-1	CCS-3
		BNC-25	CCS-25-2B
Empty Tool Handle Requires memory and stripper cassette		All except BNC-25	STC-1

Complete Manual Stripper Tool Kit
(STC-12B)



BNC,F, and RCA Plug Strip Length
(All BNC Plug Connectors except BNC-25 and BNC-24)



BNC Plug Strip Length
(For BNC-25 and BNC-24)

Broadcast Connectors

Coax Connectors – Boots

Catalog Number

COAX-BOOT - __ - ____ - __

Cable Group

1	(BNC-1* & Other)
3	(BNC-3* & Other)
4	(BNC-4* & Other)
5	(BNC-5* & Other)
8	(BNC-8* & Other)
13	(BNC-13* & Other)
26	(BNC-26* & Other)
31	(BNC-31* & Other)

Quantity

A	25
B	100
C	500

Color

BK	Black
B	Blue
G	Green
R	Red
V	Violet
W	White
Y	Yellow

*Boots can be used for any variety of ADC connector Example: BNC-1; CF-1; CRCA-1; CRCAG-1; LCC-1; LCP-1

Coax Boots

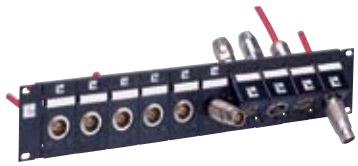
Ordering Information

Current LCP	Current LCC	Current RCA	Current F	Current BNC	ADC Groups	Catalog Number***
-	LCC-1 LCC-2	CRCA-1 CRCA-2	CF-1	BNC-1 BNC-2 BNC-6 BNC-15 BNC-20	1 2 6 15 20	COAX-BOOT-1-XX-Y
LCP-3	LCC-3	-	-	BNC-3 BNC-19 BNC-28	3 19 28	COAX-BOOT-3-XX-Y
-	-	CRCA-4	CF-9* CF-29	BNC-4 BNC-9* BNC-29	4 9 29	COAX-BOOT-4-XX-Y
-		CRCA-5 CRCA-8(1) CRCAG-8	CF-5 CF-8(1) CF-9**	BNC-5 BNC-9** BNC-11 BNC-17	5 9 11 17	COAX-BOOT-5-XX-Y
-	-	-	-	BNC-8 BNC-10	8 10	COAX-BOOT-8-XX-Y
LCP-13	LCC-13	CRCA-13 CRCAG-13	CF-13	BNC-7 BNC-12 BNC-13 BNC-14 BNC-22	7 12 13 14 22	COAX-BOOT-13-XX-Y
-	-	-	-	BNC-3TMX BNC-18 BNC-26	18 26	COAX-BOOT-26-XX-Y
LCP-31	LCC-31	CRCA-16	CF-31	BNC-16 BNC-21 BNC-31 BNC-32	16 21 31 32	COAX-BOOT-31-XX-Y

* For cable outer diameter greater than .285
** For cable outer diameter smaller than .285
*** Replace XX with color; Replace Y with quantity
(1) CF-8 and CRCA-8 use an exception to Group 8

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Introduction



For years, the industry has been locked into connector designs that are difficult to terminate, and even more difficult to field repair. ADC's line of ProAx® Triaxial Camera Connectors will change the way you think about this component forever.

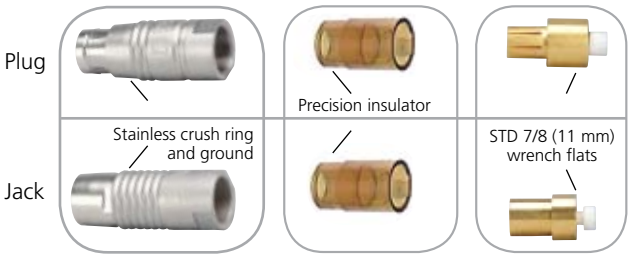
- Field Repairable – no return of cable required
- Gender and Format Reversible – male and female front housing interchangable and U.S. global formats interchangable
- Solid Outer Shield Ground
- Sturdy Construction
- Patented Panel-Mount System – 45 and 90° mounting options available
- Compatible with all major manufacturing connectors and uses as well as standard industry tools/dies

Applications

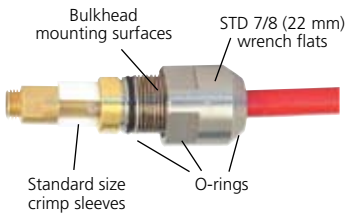
High-Definition Ready True 75 Ω Impedance

The ADC ProAx triax connector line is designed for maximum bandwidth for serial digital and high-definition digital applications while maintaining a true 75 Ω impedance. All critical path components are gold-plated for outstanding durability and connectivity.

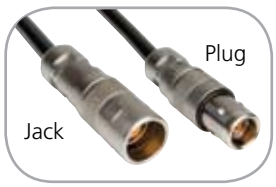
ProAx® Triaxial Camera Connectors



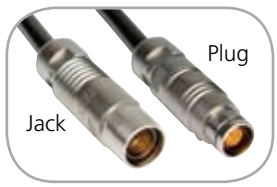
Gender/Type Changer Connector Assembly
(global standard shown)



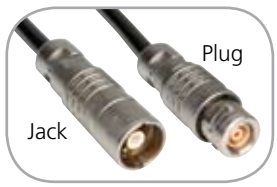
Universal Backshell Cable Dependent



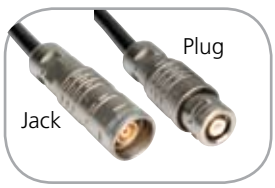
American Standard – A-Series
Equivalent: Kings



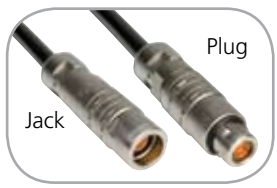
Global Standard – G-Series
Equivalent: Fischer Connectors® Series 1051 A004*



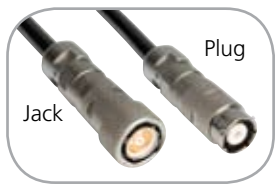
BBC Standard – B-Series
Equivalent: Lemo 4M



Reverse BBC Standard – N-Series
Equivalent: Lemo 4E



French Standard – L-Series
Equivalent: Lemo 3T



German Standard – D-Series
Equivalent: Damar & Hagen

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Cable Mount Connectors

ADC ProAx triax connectors are available in US and six international formats. Use the following model to determine the catalog ordering number for your specific product needs.

Ordering Information

Description	Catalog Number	
American Triax Complete Camera Connectors**	**Jack**	**Plug**
A12 (1/2"), .475" cables, 75 Ω	ATCJ-A12	ATCP-A12
B38 (3/8"), .360" cables, 75 Ω	ATCJ-B38	ATCP-B38
C12 (1/2"), .520" cables, 75 Ω	ATCJ-C12	ATCP-C12
D38 (3/8"), .410" cables, 75 Ω	ATCJ-D38	ATCP-D38
E38 (3/8"), .315" cables, 75 Ω	ATCJ-E38	ATCP-E38
F14 (1/4"), .246" cables, 75 Ω	ATCJ-F14	ATCP-F14

Catalog Number

Series

ATC	American
GTC	Global
BTC	BBC
NTC	Reverse BBC
LTC	French
DTC	German

Gender

J	Jack/Female
P	Plug/Male

Impedance*

50	50 Ω
75	75 Ω

Cable Type**

A12	.475" OD
B38	.360" OD
C12	.520" OD
D38	.410" OD
E38	.315" OD
F14	.246" OD
G8	8 mm OD
H11	11 mm OD
K14	14 mm OD
M9	9 mm OD
N12	12 mm OD
P13	13 mm OD

OR

BH	Bulkhead/ Camera Mount

Examples:

ATCJ-B38 = 75 Ω, US standard jack connector to fit .360" OD cable.

GTCP-G8 = 75 Ω, Global Triax plug connector to fit 8 mm cable.

BTCJ-H11-50 = 50 Ω, BBC Triax jack connector to fit 11 mm OD cable.

*Only applicable to BBC and Reverse BBC types.

**See page 3.29 and 3.30 to cross reference your cable type with ADC's cable code.

Legend:

Standard	Equivalent	Series	Standard	Equivalent	Series	Standard	Equivalent	Series
American	Kings	A	BBC	Lemo 4M	B	French	Lemo 3T	L
Global	Fischer	G	Reverse BBC	Lemo 4E	N	German	Damar & Hagen	D

Contact ADC for more information.

* Fischer connector series 1051 A004 is a registered trademark of Fischer Connectors Holding S.A.

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Cable Mount

Electrical performance specifications of ProAx Triaxial camera connectors are based on a male and female connector mated together.

Rated Bandwidth:	1 MHz to 1.5 GHz
Return Loss:	Better than -20 1 GHz/-15 to 2 GHz
Characteristic Impedance:	75 Ω nominal
Insertion Loss:	Better than 0.8 dB loss 1 MHz to 1.5 GHz
Dielectric Withstanding Voltage:	1500 Volts AC
Life Cycles:	1000 cycles minimum per MIL-PFR-39012
MECHANICAL	
Life Cycles:	1000 cycles minimum per MIL-PFR-39012
Cable Retention:	100 lb. Per MIL-STD-1344A Method 2010.1
MATERIALS	
Body materials:	Brass per ASTM B16, CDA Alloy 360 with electroless nickel plating per QQ-N-290
Inner bodies:	Brass per ASTM B16, CDA Alloy 360 with 50 millionths inch gold plating
Latching spring:	Stainless Steel 460 SE heat treated and Electro-Polished
Spring center conductors:	Beryllium Copper with 50 millionths inch Gold per MIL-G-45204 Type 1
Crush rIngs:	303 Stainless
Machined center conductors:	Brass per ASTM B16 CDA Alloy 360 with 50 millionths inch Gold per MIL-G-45204 Type 1
Ground Clip:	Beryllium Copper with electroless nickel plating per QQ-N-290 and Gold per MIL-G-45204 Type 1
Insulators:	Teflon™
O-Rings:	Ethylene Propylene
ENVIRONMENTAL	
Temperature	
Operating:	-40° C to 65° C
Storage:	-55° C to 85° C
Thermal shock:	Per MIL-STD-202, Method 107
Humidity	
Operating:	0% to 95%, non-condensing
Storage:	0% to 95%, non-condensing
Salt spray:	Per MIL-STD-202, Method 101, Test Condition B
Moisture resistance:	Per MIL-STD-202, Method 106
Sand and dust resistance:	Per MIL-STD-202, Method 101
Flammability:	UL 94-VO Rated
Crush resistance:	Per MIL-STD-1344A, Method 2008.1

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Cable Mount

This system offers the flexibility of choosing/changing gender and type after terminating the cable. Ordering the gender changer kit and cable mount backshell separately results in reduced mistakes and repairs in the field. When a complete connector is ordered it is comprised of a gender changer kit (series and gender specific) and cable mount backshell (cable size specific).

Gender Changer Kit
(global standard shown)

Gender Changer Kits

Kits include all parts needed for changing gender and series.

Ordering Information

Description (Series)	Gender	Catalog Number
Gender Changer Kits		
American	Female jack	ATRK-GCF
	Male plug	ATRK-GCM
Global	Female jack	GTRK-GCF
	Male plug	GTRK-GCM
BBC	Female jack	BTRK-GCF-50*
	Male plug	BTRK-GCM-50*
Reverse BBC	Female jack	NTRK-GCF-75*
	Male plug	NTRK-GCM-75*
French	Female jack	LTRK-GCF
	Male plug	LTRK-GCM
German	Female jack	DTRK-GCF
	Male plug	DTRK-GCM

*Available with 75 Ω or 50 Ω options.

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Cable Mount

Cable Mount Backshells

Includes all parts needed for cable termination.

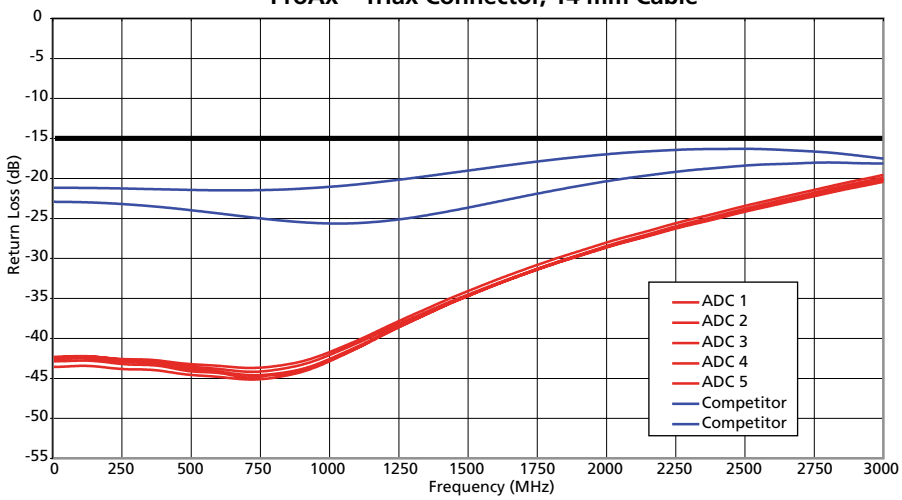
Universal RoHS Compliant Backshell
Cable Size Dependent

Ordering Information

Description	Catalog Number
Universal RoHS Compliant Backshells*	
A12 (1/2"), .475" cables, 75 Ω	GTRK-BS-A12
B38 (3/8"), .360" cables, 75 Ω	GTRK-BS-B38
C12 (1/2"), .520" cables, 75 Ω	GTRK-BS-C12
D38 (3/8"), .410" cables, 75 Ω	GTRK-BS-D38
E38 (3/8"), .315" cables, 75 Ω	GTRK-BS-E38
F14 (1/4"), .246" cables, 75 Ω	GTRK-BS-F14
G8 (8 mm) cables, 75 Ω	GTRK-BS-G8
H11 (11 mm) cables, 75 Ω	GTRK-BS-H11
K14 (14 mm) cables, 75 Ω	GTRK-BS-K14
M9 (9 mm) cables, 75 Ω	GTRK-BS-M9
N12 (12 mm) cables, 75 Ω	GTRK-BS-N12
P13 (13 mm) cables, 75 Ω	GTRK-BS-P13

*See page 3.29 and 3.30 to cross reference your cable type with ADC's cable code and for additional cable sizes.

Gated Return Loss
ProAx® Triax Connector, 14 mm Cable



Broadcast Connectors

ProAx® Triaxial Camera Connectors – Cable Mount

Ordering Information

Description (Series)	Gender	Catalog Number
Center Conductor Repair Kits		
American	Female jack	TRK-FF
	Male plug	TRK-FM
Global	Female jack	GTRK-FF
	Male plug	GTRK-FM
BBC and Reverse BBC	Female jack	BNTRK-FF-50
		BNTRK-FF-75
	Male plug	BNTRK-FM-50
		BNTRK-FM-75
German	Female jack	DTRK-FF
	Male plug	DTRK-FM
Outer Shell Repair Kits		
American	Female jack	ATRK-FOS
	Male plug	ATRK-MOS
Global	Female jack	GTRK-FOS
	Male plug	GTRK-MOS
BBC	Female jack	BTRK-FOS
	Male plug	BTRK-MOS
Reverse BBC	Female jack	NTRK-FOS
	Male plug	NTRK-MOS
French	Female jack	LTRK-FOS
	Male plug	LTRK-MOS
German	Female jack	DTRK-FOS
	Male plug	DTRK-MOS
Rear Re-termination Repair Kits (only parts required for retermination)		
Size A12 and D38		GTRK-RAD
Size B38, E38 and F14		GTRK-RBEF
Size C12		GTRK-RC
Size G8		GTRK-RG
Size H11		GTRK-RH
Size K14		GTRK-RK
Size M9		GTRK-RM
Size N12		GTRK-RN
Size P13		GTRK-RP

Center Conductor Repair Kit
(american standard shown)

Outer Shell Repair Kit
(global standard shown)

Rear Re-termination Repair Kit

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Cable Mount

Protective Weather Boots

ADC's triax weather boots provide ultimate protection for your triax connector investment.

Features

- Sealed to IP67 specification
- Available for all connector formats
- Feature a weather-tight patent pending lip-over seal protection
- Each boot is adjustable to fit any cable size
- Mating cap is attached via stainless steel lanyard, and is hermaphroditic for both male (plug) and female (jack) boots
- Made of a special high-performance UL rated rubber compound that can withstand extreme temperature ranges from -45° C to +55° C

Boot with Cap

Cap

Global (G-Series) Triax Connectors with Boots

Ordering Information

Description (Series)	Gender	Catalog Number
Protective Weather Boot with Cap		
American, BBC and Reverse BBC	Female jack	BNTCJ-BOOT
	Male plug	BNTCP-BOOT
Global	Female jack	GTCJ-BOOT
	Male plug	GTCP-BOOT
French	Female jack	LTCJ-BOOT
	Male plug	LTCP-BOOT
German; caps are metallic	Female jack	DTCJ-BOOT
	Male plug	DTCP-BOOT
Protective Weather Cap		
American, BBC and Reverse BBC		BNTC-CAP
Global		GTC-CAP
French		LTC-CAP
German; caps are metallic	Female jack	DTCJ-CAP
	Male plug	DTCP-CAP

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Bulkhead Mount

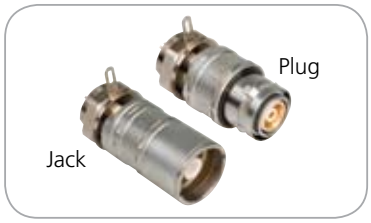
ADC's slim-line versions of its seven triax formats are specifically engineered for OEM camera use and low-profile bulkhead mounting. These new bulkhead connectors retain gender flexibility, field repairability and format reversable features that ensure high-performance.

Features

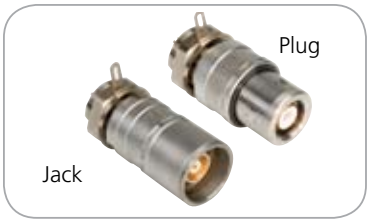
- Solder-style termination
- Connectors are gender and format interchangeable
- Field repairable without having to replace the connector or open the camera
- Compatible wtih industry-standard triaxial connectors
- Reverses between US and six international formats in just seconds
- Qualified to demanding MIL-STD 202

American Standard
A-Series
Equivalent: Kings

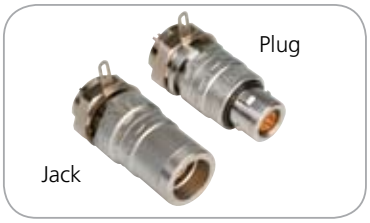
Global Standard
G-Series
Equivalent: Fischer Connectors®
Series 1051 A004*



BBC Standard
B-Series
Equivalent Lemo 4M



Reverse BBC Standard
N-Series
Equivalent: Lemo 4E



French Standard
L-Series
Equivalent: Lemo 3T

German Standard
D-Series
Equivalent: Damar & Hagen

Legend:

Standard	Equivalent	Series	Standard	Equivalent	Series	Standard	Equivalent	Series
American	Kings	A	BBC	Lemo 4M	B	French	Lemo 3T	L
Global	Fischer	G	Reverse BBC	Lemo 4E	N	German	Damar & Hagen	D

Contact ADC for more information.

* Fischer connector series 1051 A004 is a registered trademark of Fischer Connectors Holding S.A.

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Broadcast Connectors

ProAx® Triaxial Camera Connectors – Bulkhead Mount

Ordering Information

Description (Series)	Gender	Catalog Number
Bulkhead/Camera Mount Triax Complete Camera Connectors (solder type)		
American	Female jack	ATCJ-BH
	Male plug	ATCP-BH
Global	Female jack	GTCJ-BH
	Male plug	GTCP-BH
BBC	Female jack	BTCJ-BH-50*
	Male plug	BTCP-BH-50*
Reverse BBC	Female jack	NTCJ-BH-75*
	Male plug	NTCP-BH-75*
French	Female jack	LTCJ-BH
	Male plug	LTCP-BH
German	Female jack	DTCJ-BH
	Male plug	DTCP-BH

Ordering Information

Description (Series)	Gender	Catalog Number
Triax Camera Connector Repair Kits for Bulkhead Gender Changer Kits		
American	Female jack	ATRK-GCF-BH
	Male plug	ATRK-GCM-BH
Global	Female jack	GTRK-GCF-BH
	Male plug	GTRK-GCM-BH
BBC	Female jack	BTRK-GCF-BH-50*
	Male plug	BTRK-GCM-BH-50*
Reverse BBC	Female jack	NTRK-GCF-BH-75*
	Male plug	NTRK-GCM-BH-75*
French	Female jack	LTRK-GCF-BH
	Male plug	LTRK-GCM-BH
German	Female jack	DTRK-GCF-BH
	Male plug	DTRK-GCM-BH
Universal Rear Unit Panel Mount (solder-type)		TRK-RU-BH

*Available with 75 Ω or 50 Ω options.

Universal Rear Unit

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Bulkhead Mount

Center Conductor Repair Kit

Ordering Information

Description (Series)	Gender	Catalog Number
Center Conductor Repair Kits		
American	Female jack	TRK-FF
	Male plug	TRK-FM
Global	Female jack	GTRK-FF
	Male plug	GTRK-FM
BBC and Reverse BBC	Female jack	BNTRK-FF-50
		BNTRK-FF-75
	Male plug	BNTRK-FM-50
		BNTRK-FM-75
French	Female jack	LTRK-FF
	Male plug	LTRK-FM
German	Female jack	DTRK-FF
	Male plug	DTRK-FM
Outer Shell Repair Kits		
American	Female jack	ATRK-BH-FOS
	Male plug	ATRK-BH-MOS
Global	Female jack	GTRK-BH-FOS
	Male plug	GTRK-BH-MOS
BBC	Female jack	BTRK-BH-FOS
	Male plug	BTRK-BH-MOS
Reverse BBC	Female jack	NTRK-BH-FOS
	Male plug	NTRK-BH-MOS
French	Female jack	LTRK-BH-FOS
	Male plug	LTRK-BH-MOS
German	Female jack	DTRK-BH-FOS
	Male plug	DTRK-BH-MOS

Legend:

Standard	Equivalent	Series	Standard	Equivalent	Series	Standard	Equivalent	Series
American	Kings	A	BBC	Lemo 4M	B	French	Lemo 3T	L
Global	Fischer	G	Reverse BBC	Lemo 4E	N	German	Damar & Hagen	D

Contact ADC for more information.

* Fischer connector series 1051 A004 is a registered trademark of Fischer Connectors Holding S.A.

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Broadcast Connectors

ProAx® Triaxial Camera Connectors – Mounting Solutions and Accessories

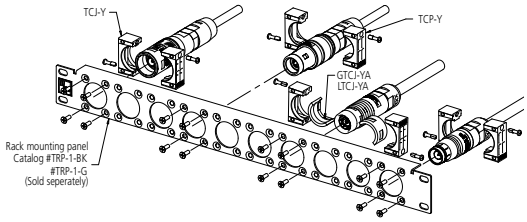
Ordering Information

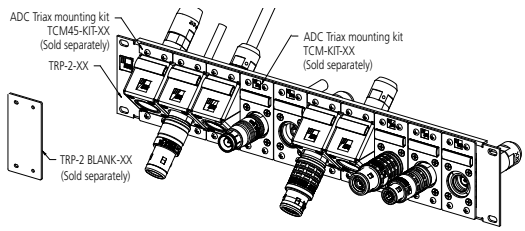
Description		Color	Catalog Number
Cable Mounting Solutions			
Panel 1 RU empty; for up to 10 connectors, requires connectors and yoke kits, sold separately		Black	TRP-1-BK
		Gray	TRP-1-G
Yoke clamp	Female ProAx® jacks	–	TCJ-Y
	Male ProAx® plugs	–	TCP-Y
Yoke clamp adapter**	G-Series jacks	–	GTCJ-YA
	L-Series, D-Series, jacks and D-Series plugs	–	LTCJ-YA
Panel 2 RU empty; for up to 10 TCM kits, requires connectors and TCM kits, sold separately		Black	TRP-2-BK
		Gray	TRP-2-G
Universal panel mount kit; mounts in TRP-2 panel (includes yoke clamps)	Straight	Black	TCM-KIT-BK
		Gray	TCM-KIT-G
	45 degree	Black	TCM45-KIT-BK
		Gray	TCM45-KIT-G
Blank cover		Black	TRP-2BLANK-BK
		Gray	TRP-2BLANK-G
Bulkhead Mounting Solutions			
Panel 2 RU empty; for up to 10 TCM kits, requires connectors and TCM-BH kits, sold separately		Black	TRP-2-BK
		Gray	TRP-2-G
Universal panel mount kit; mounts in TRP-2 rack mount	Straight	Black	TCM-BH-KIT-BK
		Gray	TCM-BH-KIT-G
	45 degree	Black	TCM45-BH-KIT-BK
		Gray	TCM45-BH-KIT-G
Blank cover		Black	TRP-2BLANK-BK
		Gray	TRP-2BLANK-G

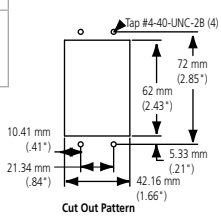
Yoke clamp kits for ADC catalog numbers. *Includes two half Yokes per kit.*	
***TCJ-Y**	ATCJ-XXX **GTCJ-XXX BTCJ-XXX NTCJ-XXX **LTCJ-XXX **DTCJ-XXX
***TCP-Y**	ATCP-XXX GTCP-XXX BTCP-XXX NTCP-XXX LTCP-XXX **DTCP-XXX

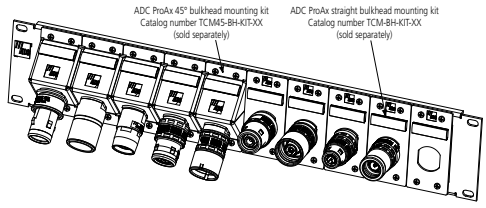
Yoke adapter kits for ADC catalog numbers. *Includes two half Yoke adapter clampers per kit.*	
GTCJ-YA	GTCJ-XXX
LTCJ-YA	LTCJ-XXX DTCJ-XXX DTCP-XXX

* Included in TCM kits
** Req's Yoke adapter (sold separately)









Broadcast Connectors

ProAx® Triaxial Camera Connectors – Mounting Solutions and Accessories

Universal Triax Adapter Assembled

UTA-1

UTA-2

UTA-KIT

Ordering Information

Description	Dimensions	Catalog Number
Universal Triax Adapter (UTA)		
UTA, adapts any connector type and gender. (Requires gender changer kit – See Pg. 4)		UTA-1
UTA short, adapts any connector type and gender. (Requires BH gender changer kit – See Pg. 13)		UTA-2
UTA kit, includes all triax (male and female) formats, with case (German standards sold separately)		UTA-KIT
Empty case for UTA kit		UTA-CASE
Installation tool kits		
American		TRK-TKIT
International (Die sets sold separately)		TRK-GTKIT
Die Sets		
Size A12, D38, H11, N12	9.75 mm x 10.16 mm (.384" x .4")	TD-ADH
Size B38, E38, F14	6.47 mm x 10.16 mm (.255" x .4")	TD-BEF
Size C12	10.89 mm x 10.16 mm (.429" x .4")	TD-C
Size G8, M9	7.06 mm x 10.16 mm (.278" x .4")	TD-G
Size K14	12.09 mm x 10.16 mm (.476" x .4")	TD-K
Crimp Tool; long-handled Pressmaster		WT-3
Wire Stripping Gauge		TRIAX-GAUGE
Thin Feld Wrench		TRIAX-WRENCH

**See page 3.29 and 3.30 to cross reference your cable type with ADC's cable code. Contact ADC for more information.

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Broadcast Connectors

ProAx® Triaxial Camera Connectors – Cable Reference Tables

Imperial Cable Types

ADC Cable Code	A12		B38		C12		D38		E38		F14	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
Center Conductor O.D.	**0.064**	1.63	**0.032**	0.81	**0.064**	1.63	**0.064**	1.63	**0.032**	0.81	**0.032**	0.81
Core Insulation O.D.	**0.285**	7.24	**0.143**	3.63	**0.312**	7.92	**0.285**	7.24	**0.143**	3.63	**0.135**	3.43
Inner Braid O.D.	**0.315**	8.00	**0.176**	4.47	**.0332**	8.43	**0.315**	8.00	**0.176**	4.47	**0.168**	4.27
Inner Jacket O.D.	**0.380**	9.65	**0.216**	5.49	**0.392**	9.96	**0.345**	8.76	**0.226**	5.74	**0.184**	4.67
Outer Braid O.D.	**0.395**	10.03	**0.250**	6.35	**0.422**	10.72	**0.375**	9.53	**0.256**	6.50	**0.215**	5.46
Outer Jacket O.D.	**0.475**	12.07	**0.360**	9.14	**0.520**	13.21	**0.410**	10.41	**0.315**	8.00	**0.235**	5.97
Retermination Kits	**GTRK-RA**		**GTRK-RB**		**GTRK-RC**		**GTRK-RD**		**GTRK-RE**		**GTRK-RF**	
ADC Crimp Die	**TD-ADH**		**TD-BEF**		**TD-C**		**TD-ADH**		**TD-BEF**		**TD-BEF**	
Crimp Tool	WT-3/WT-2*		WT-3/WT-2*		WT-3/WT-2*		WT-3/WT-2*		WT-3/WT-2*		WT-3/WT-2*	

Cable Reference						
	Belden 8233	Belden 1856A	Belden 1858A	Belden 1859A	Belden 8232	Belden 88232
	Belden 8233A	Belden 1856B	Belden 9232	Gepco VT618811TK	Belden 8232A	
	Belden 7803A	Belden 1857A	Belden 9192		CommScope 7810	
	CommScope 7820	Belden 9267	Clark Wire TV7511		Nemal 1840	
	CommScope 7827	Clark Wire TV7559	CommScope 7825			
	Gepco VT61811	CommScope 7811	CommScope 7826			
	Gepco VT61811PE	CommScope 7812	Gepco LVT61811			
	Gepco VT61811PE/AP	CommScope 7814	Manhattan M8022			
		Gepco VT61859	Nemal 1820			
	Gepco VT61811PEF	Gepco LVT61859	Nemal 1825			
		Gepco LVT61859S				
	Nemel 1810	Manhattan M8021				
		Nemal 1835				

* WT-3 long handle/WT-2 shorthandle

Broadcast Connectors

ProAx® Triaxial Camera Connectors – Cable Reference Tables

Metric Cable Types

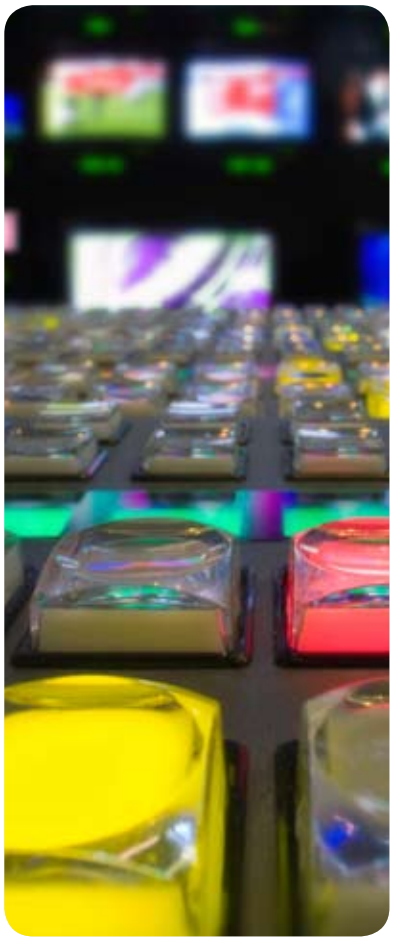
ADC Cable Code	G8		H11		K14		M9		N12		P13	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
Center Conductor O.D.	0.039	**0.99**	0.056	**1.42**	0.087	**2.21**	0.039	**1**	0.055	**1.4**	0.074	**1.89**
Core Insulation O.D.	0.178	**4.52**	0.256	**6.50**	0.382	**9.70**	0.177	**4.5**	0.256	**6.5**	0.323	**8.2**
Inner Braid O.D.	0.200	**5.08**	0.284	**7.21**	0.413	**10.49**	0.201	**5.1**	0.280	**7.1**	0.350	**8.9**
Inner Jacket O.D.	0.260	**6.60**	0.344	**8.74**	0.468	**11.89**	0.260	**6.6**	0.339	**8.6**	0.394	**10.0**
Outer Braid O.D.	0.282	**7.16**	0.371	**9.42**	0.499	**12.67**	0.283	**7.2**	0.362	**9.2**	0.425	**10.8**
Outer Jacket O.D.	0.331	**8.41**	0.433	**11.00**	0.571	**14.50**	0.350	**8.9**	0.480	**12.2**	0.512	**13**

Retermination Kits	GTRK-RG	GTRK-RH	GTRK-RK	GTRK-RM	GTRK-RN	GTRK-RP
ADC Crimp Die	**TD-G**	**TD-ADH**	**TD-K**	**TD-G**	**TD-ADH**	**TD-C + TD-K (for CC)**
Crimp Tool	WT-3/WT-2*	WT-3/WT-2*	WT-3/WT-2*	WT-3/WT-2*	WT-3/WT-2*	WT-3/WT-2*

Cable Reference						
	Argosy CT2767300	Argosy CT27674XX	Argosy CT2766700	Draka Triax 8/1	Draka Triax 11/1	Triax B2 (France)
				Triax A2 (France)		
	Argosy CT27679XX	Argosy CT2766XXX	Argosy CT2766704			
	Argosy CT2765XXX	Argosy CT27681XX	Argosy CT7666700			
	Argosy CT28532XX	Argosy CT2850801	Argosy CT2767000			
	Bedea 1.0s/4.5s Standard 8	Bedea 1.4s/6.6s Standard 11	Bedea Standard 14			
	Bedea 1.0Ls/4.5s Superflex 8	Bedea 1.4Ls/6.6s Superflex 11	Bedea Superflex 14			
	Belden 7783A	Belden 7784AS	Belden 7785A			
	Belden 7801A	BIW 91307	Draka Triax 14			
	Draka Triax 8	Draka Triax 11	Fujikura 9.6/2.22EFTXF			
	Filotex SFP:A2 Video Fixe	Filotex SPF:B2 Video Fixe	Nokia Triax 14			
	Filotex SFP:A2 Video Mobile	Filotex SFP:B2 Video Mobile	Nokia Triflex 14			
	Fujikura 4.8/1.0 EFTXF	Intercond RX 75/56				
	Hirakava Triax 4.8/1.0 Tufret	N.E.K. 63990				
	Intercond RX 75/55	Nokia Triax 11 1.4s/6.6s				
	N.E.K. 23860	Nokia Triflex 11 1.4Ls/6.6s				
	Nokia Triax 8 1.0s/4.5s					
	Nokia Triflex 8 1.0Ls/4.5s					
	Percon Triax 8 Rigid (HF)					
	Percon Triax 8 Flex (HF)					
	Percon Triax 8 Z (Superflex)					
	Percon Triax 8 FRLSHF					

* WT-3 long handle/WT-2 shorthandle

Modular Systems and Cable Management



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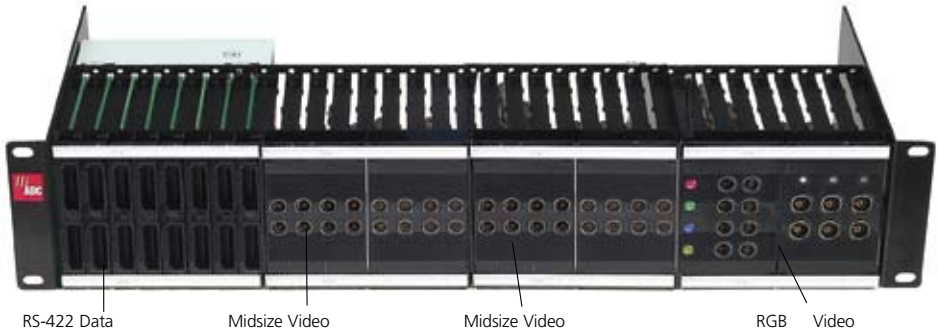
Modular Systems and Cable Management

UniPatch® Modular System – Overview



Loaded UniPatch Chassis

The UniPatch modular patching system with universal chassis allows you to combine data, audio, and video patching modules in a single two-rack-unit modular panel. Order a mix of jack and backplane modules to create a totally custom patching system, or order a preconfigured panel

Modular Chassis for Unprecedented Flexibility

Features

- Jacks and backplanes have a modular design and fit into the rugged high-density card cage chassis. Just plug in a module to add more jacks or backplane connectors
- Modularity lets you start small and add modules and cards as needed
- Individual circuits are easily replaced without disturbing other circuits
- Backplanes available in high-density 64-circuit bantam audio, high-density 32-port data, standard-density 24-port data, and video options
- Gold-plated card edge connectors tested to withstand heavy use and vibration
- Shallow 7" deep chassis is perfect for mobile applications

RS-422 data jacks. You can start with only a few modules and add or change modules as needed. The universal chassis with mix-and-match jack and backplane modules provides the ultimate in flexibility.

Mix-and-Match Plug-in Jack Modules

The following modules (details on following pages) may be assembled on site in mix and match combinations. Data and bantam modules may be ordered in a fully loaded preconfigured chassis.

Features

- Category 3 compliant RS-422 modules for demanding professional data patching applications
- Bantam audio modules in user-selectable normalled configurations
- Video modules for analog, SD, HD, and analog component
- AES 110 Ω to 75 Ω coaxial baluns
- BNC bulkhead feedthroughs
- Category 5, 5e and 6 data patching

Modular Systems and Cable Management

UniPatch® Modular System – Backplane Options (mix-and-match)

Ten different backplane connector types are available, and because they come in modular units, they can be mixed and matched like the jack modules. Each backplane supports up to eight jack modules.

Features

- Available modules:
  - Dsub9 connectors
  - AMP Champ 50-pin receptacle
  - EDAC 3-pin plug
  - EDAC 90-pin plug
  - QCP MKII for data 20x8
  - QCP MKII for audio 12x8

Dsub9, RS-422
Rear Module
(for data)
(VPRM-D9-W)

AMP 50-Pin Receptacle
Rear Module
(for data)
(VPRM-A50-W)

EDAC 90-Pin
Rear Module
(for data)
(VPRM-E90-W EDAC)

QCP MKII
Rear Module
(for data)
(VPRM-MKII-W)

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Gigabit Ethernet Jack Module

Features

- Dense pack patching
- Minimum of 30,000 patch cycles
- Normal-through patch by exception
- Modular design (can be removed without disturbing adjacent circuits)
- Gold-plated contacts on switches and card edge connectors
- Keyed opening for proper patch cord orientation

DM-GIGE

LSA-PLUS 8-Circuit Backplane Module

Features

- Patented LSA-PLUS® termination system modules can be removed individually for easier wiring
- Number designation labels included
- Designation strip and window included for custom labeling
- Designed for solid or stranded wire
- Eliminates the need for additional connectors and connector labor

Note: For complete configuration and ordering information, please refer to Data Section.

VPRM-GIGE-LSA
(rear view)

Modular Systems and Cable Management

UniPatch® Modular System – RS-422 Modules

The UniPatch® Category 3 compliant RS-422 module raises the standard in machine control patching with its quality and robust design. Now you can patch machine control data properly using reliable, durable, military-grade jacks rated for 30,000 insertion/withdrawal cycles. Each circuit switches all ten pins, making the module fully SMPTE 207M compliant. Compared to other systems employing light-duty RJ45 connectors rated at fewer than 500 insertion/withdrawal cycles or bantam jacks that do not switch all signal lines, the UniPatch RS-422 module is a significant advance in machine control patching.

Features

- The standard in professional data patching
- Durable military-grade switch system rated for 30,000 insertion/withdrawal cycles. Unlike RJ45 systems, suitable for heavy daily professional use.
- Fully SMPTE 207M compliant circuits switch all ten pins, unlike bantam systems, which do not switch all ground pins, potentially causing problems
- Tough military-grade, gold-plated switch with long cantilever beam springs and unique self-wiping contacts ensures against premature wear and provides positive contact force
- RS-422 cards offer the highest density available. Up to 32 modules in two rack units for 33 percent greater density
- Normalled or non-normalled cards available
- Modular termination options: Dsub9, DB-25, EDAC 90-pin plug, QCP II, Ultra Patch, standard-density, 24 per frame, or Dsub9 high-density, 32 per frame (requires thin shell strain relief)
- Keyed for proper patch cord orientation
- Category 3 compliant for 10 Base-T data

Modular Systems and Cable Management

UniPatch® Modular System – Video Modules

ADC offers a full line of UniPatch video patching modules, making it easy to assemble a custom video patch panel for any application. Modules are available for analog, SD, HD, or component video. Included in the selection of jacks are the standard size SVJ, midsize MVJ, and MUSA SMJ-series HD jacks for outstanding performance at high-definition data rates and beyond.

Features

- Standard jacks mount 24 across, midsize jacks mount 32 across
- Standard-size, HD video modules contain SVJ-2 normalled-through Super Video Jacks with or without termination
- Standard size straight-through modules contain CJ2014N jacks without termination or CJ2020N-75 jacks with termination
- Midsize HD video modules contain MVJ-3 normalled-through Super Video Jacks with or without termination
- Midsize straight-through modules contain CJ3014/4014 jacks without termination or CJ3014N-75/4014N-75 jacks with termination
- MUSA modules contain SMJ-2100 HD-rated MUSA standard jacks.
- Modules are available for analog component video in the following configurations: RGB, P_rP_BY, RGBS, and RGBHV
- Large designations snap on without tools providing enough space for four rows of text

Standard Size Video Module
also available with CJ2020N75 terminated single jacks
(VM-2014-BK)

Standard Size HD Video Module
(VM-SVJ-BK)

RGBHV Video Module
(VM-RGBHV-MVJ-BK)

Midsize HD Video Module
(VM-MVJ-BK)

RGB, P_rP_BY HD Video Module
(VM-RGB-MVJ-BK)

All modules provided with colored inserts to allow the user to customize for any use.

Modular Systems and Cable Management

UniPatch® Modular System

Ordering Information

Description	Catalog Number
Empty Chassis	
Empty UniPatch® chassis, black, supplied with VP-DES-343-32 kit	VP2232-BK
Empty UniPatch chassis, gray, supplied with VP-DES-343-32 kit	VP2232-G
RS-422 Data Fully Loaded Chassis - normalled**	
24-circuit Dsub9 normalled, gray, no backshell kits	VP2224-D9-G
24-circuit Dsub9 normalled, black, no backshell kits	VP2224-D9-BK
32-circuit Dsub9 normalled, gray, no backshell kits	VP2232-D9-G
32-circuit Dsub9 normalled, black, no backshell kits	VP2232-D9-BK
32-circuit Dsub9 normalled, black, with backshell kits	VP2232-D9-BK-S
32-circuit Dsub9 normalled, gray, with backshell kits	VP2232-D9-G-S
RS-422 Data Fully Loaded Systems - non-normalled**	
24-circuit Dsub9 non-normalled, black, no backshell kits	VP2224-NND9-BK
32-circuit Dsub9 non-normalled, black, no backshell kits	VP2232-NND9-BK
32-circuit Dsub9 non-normalled, gray, no backshell kits	VP2232-NND9-G

* Normal configurations on bantam audio cards to be set by user. 32-circuit Dsub9 systems require the use of a thin backshell kit.

**The thin backshell Dsub9 provides strain relief for standard Dsub9 connectors. This shell kit is highly recommended on 32-circuit UniPatch RS-422 systems and is included where indicated.

Dsub9 Thin Backshell Kit
(Does not include Dsub9 connector, included wtih -S only.)

Ordering Information

Description	Catalog Number
Traditional RS-422 Patch Panels	
RS-422 2x12 non-normalled RJ45, black	PEM-9NCDA1-BK-NN
RS-422 2x24 dual bantam to Dsub9 normalled	PPB3-5R422D9NS
RS-422 2x12 dual bantam to Dsub9 normalled	PPB3-5R422D9NS-12

Modular Systems and Cable Management

UniPatch® Modular System

Ordering Information

Description	Required Chassis Space	Catalog Number
Data Modules		
2-port GigE normalling jack module: PCB with green masking	1 space	DM-GIGE
2-port GigE non-normalling jack module: PCB with black masking	1 space	DM-GIGE-NN
RS-422 data, 10-pin, normals through, black	1 space	DM-422-BK
RS-422 data, 10-pin, normals through, gray	1 space	DM-422-G
RS-422 data, 10-pin, non-normalled, black	1 space	DM-422-NN-BK
RS-422 data, 10-pin, non-normalled, gray	1 space	DM-422-NN-G
Ethernet data, Cat 5 RJ-RJ non normalled coupler, black	1 space	DM-RJC5-BK
Ethernet data, blank adapter, black	1 space	DM-6S-BK
Universal Blank Modules		
Blank module, black	4 spaces	DM-BLANK-BK
Blank module, gray	4 spaces	DM-BLANK-G
Video Modules†		
Standard, CJ2020N-75 terminated single, 3-circuit, black	4 spaces	VM-2020-BK
Standard, Super Video Jack SVJ-2, 3-circuit, black	4 spaces	VM-SVJ-BK
Standard, Super Video Jack SVJ-2T, terminated, 3-circuit, black	4 spaces	VM-SVJT-BK
Midsize, Super Video Jack MVJ-3, 4-circuit, black	4 spaces	VM-MVJ-BK
Midsize, Super Video Jack MVJ-3T, 4-circuit, terminated, black	4 spaces	VM-MVJT-BK
Midsize, Super Video Jack MVJ-3, 4-circuit, gray	4 spaces	VM-MVJ-G
Midsize, Super Video Jack MVJ-3T, 4-circuit, terminated, gray	4 spaces	VM-MVJT-G
Midsize, MVJ-3, RGB+HV, black	4 spaces	VM-RGBHV-MVJ-BK
Midsize, MVJ-3T, RGB+HV, terminated, black	4 spaces	VM-RGBHV-MVJT-BK
Midsize, MVJ-3, RGB, P_7P_8Y HD module, black	4 spaces	VM-RGB-MVJ-BK
Midsize, MVJ-3T, RGB, P_7P_8Y HD module, terminated, black	4 spaces	VM-RGB-MVJT-BK
Midsize, CJ3014/4014N, 4-circuit, black	4 spaces	VM-CJMID2-BK
Midsize, CJ3014/4014N-75, 4-circuit, terminated, black	4 spaces	VM-CJMIDT2-BK
Midsize, CJ3014/4014N-75, 4-circuit, terminated, gray	4 spaces	VM-CJMIDT2-G

Ordering information continues on next page.

†Video circuits are supplied with designations and circuit indications.

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Modular Systems and Cable Management

UniPatch® Modular System

Ordering Information

Description	Catalog Number
Rear Modules for Audio and Data Applications	
Universal AMP 50-pin receptacle, 8-circuit, RS-422, white	VPRM-A50-W
Gigabit Ethernet LSA-PLUS 8-circuit backplane module	VPRM-GIGE-LSA
Universal DB-9, 8-circuit, RS-422, white, for data applications	VPRM-D9-W
Universal EDAC 90-pin plug, 8-circuit, RS-422, white	VPRM-E90-W
Universal QCP II, 8x10 circuit, white, for data applications	VPRM-MKII-W

Ordering Information

Description	Catalog Number
Accessories	
Dsub9 thin backshell connector kit, 1 count	DB9-TSHELL1-KIT
Dsub9 thin backshell connector kit, 16 count	DB9-TSHELL16-KIT
Dsub9 thin backshell connector kit, 64 count	DB9-TSHELL64-KIT
Patch cord kit with two RS-422 ends, 10-pin black, no cable	PC-422-KIT
Rear cable management kit (mounts in rear rack rails), black	PPI-EXT-BAR-BK
Rear cable management kit (mounts in rear rack rails), gray	PPI-EXT-BAR-G
Replacement Designation Strip Kits*	
Kit of 2 pieces, 17" x .640" full-length designation strips (includes window and mounting screws)	VP-DES-680-32
Kit of 16 windows, 2.01" x .343" designation windows for video modules	VP-DES-VIDEO
Kit of 4 pieces, 4.174" x .289" designation strips for bantam, video or data modules (includes windows and mounting screws)	VP-DES-343-4
Kit of 2 pieces, 17" x .289" designation strips for loaded bantam or data chassis (includes windows and mounting screws. Order two kits for loaded bantam systems)	VP-DES-343-32

* See UniPatch Installation Guide ADCP-75-009 for additional information on selecting the correct designation kit for your UniPatch system. Designations are supplied with chassis and system configurations; kits are for replacement only

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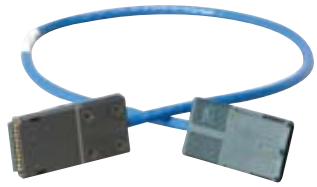
Ordering Information

Description	Catalog Number
Gigabit Ethernet and RS422 Cat 6 Patch Cords	
0.6 m (2')	PC-GIGE-2
0.9 m (3')	PC-GIGE-3
1.2 m (4')	PC-GIGE-4
1.8 m (6')	PC-GIGE-6
UniPatch Data Patch Cords	
UniPatch RS-422 10-pin gray 2'	PC-422-2GY
UniPatch RS-422 10-pin gray 3'	PC-422-3GY
UniPatch RS-422 10-pin gray 4'	PC-422-4GY
UniPatch RS-422 10-pin gray 6'	PC-422-6GY
UniPatch RS-422 10-pin to RJ45, gray 2'	PC-422-RJ45-2GY
UniPatch RS-422 10-pin to RJ45, gray 3'	PC-422-RJ45-3GY
UniPatch RS-422 10-pin to RJ45, gray 4'	PC-422-RJ45-4GY
UniPatch RS-422 10-pin to RJ45, gray 6'	PC-422-RJ45-6GY
Traditional Data Patch Cords	
RJ45-RJ45 1', blue	TP5ETA-BL01
RJ45-RJ45 2', blue	TP5ETA-BL02
RJ45-RJ45 3', blue	TP5ETA-BL03
RJ45-RJ45 4', blue	TP5ETA-BL04



UniPatch Data Patch Cord

Modular Systems and Cable Management

Data Connectivity Patching Systems – UniPatch® GigE Series

Gigabit Ethernet Patch Panel

ADC has designed a professional broadcast-quality Gigabit (1000 baseT) patching system for demanding professional environments where frequent patching and higher density is required. The system features a high-density 32-port normal-through card frame system to ADC Direct-Edge LSA-PLUS® termination system. Now you can patch Ethernet data properly using reliable durable military-grade jacks rated for 30,000 insertion/withdrawal cycles. The Category 6 rated patch cords are keyed to ensure proper patching.

Compared to other systems employing light duty RJ45 connectors rated at fewer than 500 insertion/withdrawal cycles or bantam jacks that do not switch all signal lines, the UniPatch® GigE module is a significant advance in Ethernet and machine control patching.

The GigE system is a dense pack digital control interface patching system that provides test access, patch, cross-connect and monitor functions in 100 Ω balanced transmission systems. It has a common signal format, bit rate, and operation up to Gigabit Ethernet (1,000 Mbps). The UniPatch GigE system is the choice for carrier-class Ethernet patching where reliability is critical.

* For more information on Gigabit Ethernet Jack Modules and LSA-Plus see 8 Circuit Backplane Module on page 4.3

VP2232-GIGE

Features

- Category 5e channel compliant
- High-density modular design, 32 circuits per panel
- Available with normal-through (patch by exception) or straight-through modules
- Modular LSA-PLUS® punch down backplane
- Keyed and highly reliable military-grade patch cords, rated to 30,000 cycles
- Available with an easily removable wire management bar
- Cable agnostic (works with any Cat 5e/Cat 6 cable)

Specifications

ELECTRICAL

Characteristic impedance:	100 Ω typical
Voltage rating:	500 Volts AC @ 60 Hz with a trip current of 1 mA for 1 minute
NEXT:	Category 5e channel compliant
FEXT:	Category 5e channel compliant
Contact resistance:	.02 Ω max change post environmental
Insulation resistance:	5000 MΩ min initial

MECHANICAL

Mechanical durability:	30,000 cycles min (front port: dense pack); 50 cycles min (LSA slot)
Insertion force:	7 lbs max
Withdrawal force:	2 lbs min
Patch cord cable bend and twist:	500 cycles min
Dimensions:	2 rack unit

ENVIRONMENTAL

Thermal shock:	-40° C to 65° C operating; -55°C to 85°C non-operating
Moisture resistance:	0% to 95%; MIL-STD-202 Method 106
Corrosion (salt spray):	MIL-STD-202 Method 101, test condition B
Flammability:	UL 94-VO rated
Vibration:	MIL-STD-202 Method 201
Solvent resistance:	MIL-STD-202 Method 215

FINISH

Sheetmetal panel:	.075 CRS with protective black finish
Plastic housings:	ABS/PC, deep blue color
Contact springs:	50 microinch gold plating MIL-G-45204 Type 1
PC board:	FR-4 with gold-plated contacts
Card edge connector:	LSA-PLUS®: 17-position termination block

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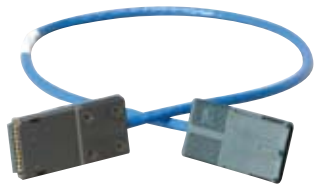
Ordering Information

Description	Catalog Number
Gigabit Ethernet Panel	
32-port GigE normalling patch panel	VP2232-GIGE
32-port GigE non-normalling patch panel	VP2232-GIGE-NN
Gigabit Ethernet Jack Module	
2-port GigE normalling jack module: PCB with green masking	DM-GIGE
2-port GigE non-normalling jack module: PCB with black masking	DM-GIGE-NN
Gigabit Ethernet LSA-PLUS Backplane Module	
Gigabit Ethernet LSA-PLUS 8-circuit backplane module	VPRM-GIGE-LSA
Gigabit Ethernet and RS422 Cat 6 Patch Cords	
0.6 m (2 ft)	PC-GIGE-2
0.9 m (3 ft)	PC-GIGE-3
1.2 m (4 ft)	PC-GIGE-4
1.8 m (6 ft)	PC-GIGE-6
Chassis	
Empty UniPatch chassis; color: black	VP2232-BK
Empty UniPatch chassis; color: gray	VP2232-G
Accessories	
LSA insertion tool and handheld LSA block holder	DM-GIGE-TOOL-KIT
Handheld/rack mountable LSA block holder	DM-GIGE-TOOL
Cable bar	ADCCMR-A

ADCCMR-A

DM-GIGE-TOOL-KIT



PC-GIGE-*X*

Modular Systems and Cable Management

Data Connectivity Patching Systems – Category 5e and 6 Patch Panels

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Category 5e and Category 6 solutions are a fully integrated family of precisely tuned components each designed to operate at optimum performance with the other. These solutions are unmatched in data throughput and are supported by the most comprehensive and thorough warranty in the industy: the TrueNet® Zero Bit-Error warranty. The warranty guarantees that the structured cabling system will remain error free for a full 5 years and includes a 20-year electrical performance and free of defect warranty. The result is a remarkable advanced and high performing end-to-end channel guaranteed beyond the typical industry requirements to maximize network throughput and minimize downtime. Numerous component options are available for versatility and flexible adaptation to meet any infrastructure requirement.

Features

Coupler Panels

- Provides feed-through data and voice connectivity on the front and rear
- Extra heavy-duty frames
- .480" designation strips

RJ to IDC Panels

- 1 RU 24-port design provides high-density and flexibility. Available in 2 RU 48-port
- Wire can be terminated with either a LSA-PLUS or 110 tool
- Rear wire manager included
- Designed to support gigabit Ethernet transmission speeds

RJ to IDC Dynamic Right/Left Angle Panels

- Patented right/left angle eases stress on patch cords allowing for easy cable management
- 45-degree silver-plated IDCs provide secure reliable gas-tight connections
- Wire can be terminated with either a LSA-PLUS or 110 tool
- Universal A/B wiring label

Shielded Coupler Panels

- High-density 24 ports in 1 rack space
- Standard RJ patch panel interface
- Screened twisted pair connector interfaces and metal shielded panel design
- Gigabit Ethernet (1000 Base-T), T1/E1

Patch Cords

- Impedance matched patch cord for maximum throughput
- Patented AirES® technology
- Up to 28% smaller outer diameter than other patch cords
- UL 1863 listed and Category 5e and Category 6 performance verified

Modular Systems and Cable Management

Data Connectivity Patching Systems – Category 5e and 6 Patch Panels

Ordering Information

Description	Catalog Number	Catalog Number
Coupler Panels	**Category 5e**	**Category 6**
1 RU 24-port patch panel; with designation strips	ADCPP24505-DES	ADCPP24606-DES
RJ to IDC Panels		
1 RU 24-port patch panel; silkscreen	6653 1 585-24	6653 1 677-24
2 RU 48-port patch panel; silkscreen	6653 1 585-48	6653 1 677-48
1 RU 24-port patch panel; fascia	6653 1 587-24	6653 1 679-24
2 RU 48-port patch panel; fascia	6653 1 587-48	6653 1 679-48
RJ to IDC Dynamic Right/Left Angle Panels		
1 RU 24-port right/left angle patch panel	PP24AC5ET	PP24AC6T
2 RU 48-port right/left angle patch panel	PP48AC5ET	PP48AC6T
Cable bar manager; black	ADCCMR-A	ADCCMR-A
Shielded Coupler Panels		
24-port ScTP (Screened Twisted Pair) RJ to RJ	ADCPP24RJ5E-S	ADCPP24RJ6-S
Patch Cords		
RJ45-RJ45 plug UTP T568B PVC patch cord	TP5ETA-XXYY	6645-2-78X-YY
RJ45-RJ45 plug UTP T568A PVC patch cord	TP5ETA0XXYY	6645-2-77X-YY
RJ45-RJ45 plug UTP crossover PVC patch cord	TP5ETACXXYY	6645-2-79X-YY

X = Color: 0 = White, 1 = Blue, 2 = Red, 3 = Yellow, 4 = Green, 7 = Gray
YY = Length: 04 = 4 ft; 07 = 7 ft, 10 = 10 ft, 15 = 15 ft, 25 = 25ft, 50 = 50ft
Contact ADC for custom lengths and colors.

Modular Systems and Cable Management

ICON® – Integrated Cable Organization Network

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ICON® Models for Every Application

Whether your facility has abundant floor space to accommodate a rack-based ICON system or you need to fit the system into tight spaces by mounting it on the wall, ADC makes a cable management system to meet your requirements:

- I-96 series audio rack-mount system for 19-inch equipment racks
- I-W series audio wall-mount system
- I-WS space-saving super high-density audio wall-mount system
- VI Video ICON rack-mount system for 19- and 23-inch equipment racks
- VIW Video ICON wall-mount system
- Cable management hardware, such as fanning panels and cable bars and rings, are available for each ICON system to ensure all cabling is routed neatly and securely

Labor-saving QCP Audio Connections

ICON audio cable management systems feature ADC's proven punchdown cable termination system for fast, efficient, and secure interconnections. QCP offers these advantages:

- Reduced installation time with fast, easy punchdown terminals
- Reliable gastight connections because of patented QCP split-cylinder design
- Reusable contacts allow easy circuit changes without disturbing adjacent contacts
- Color-coded and numbered contacts prevent wiring mistakes

Flexible and Reliable Video Connections

ICON video cable and panel management systems feature ADC's premier true 75 Ω BNC feed through connectors for HD/SDT applications or F Bulkheads for RF applications:

- Closed entry contact/center pin
- Resists damage
- Identification numbering for easy ciruit location

Fully Loaded I-96 Rack-Mount System with Fanning Panels and Express Troughs. Handles 768 balanced audio pairs

Modular Systems and Cable Management

ICON® – Modular Wall-Mount Systems

Audio/Video/Data

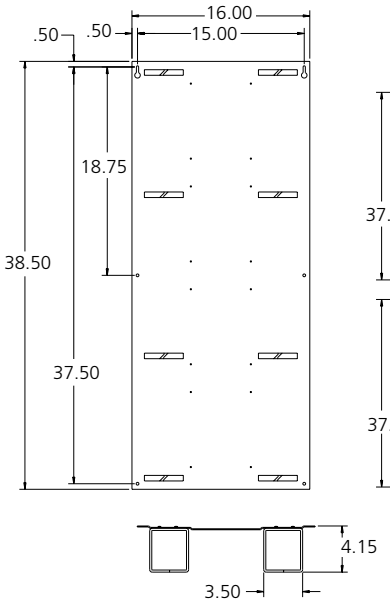
The ICON I-W Wall-Mount System offers modularity in a convenient wall-mounted system. Subpanels are available for twisted pair, BNC, F, DB9 and Ethernet bulkhead panels. Subpanels purchased individually. The I-W frame holds up to 4 subpanels and has integrated cable rings for cable management.

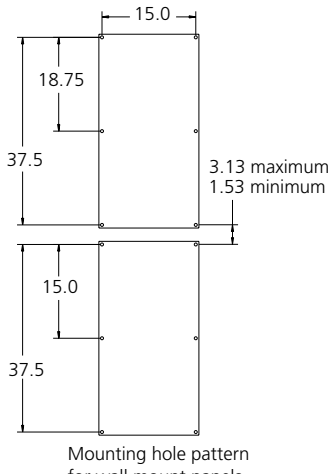
24-position, BNC, Bulkhead Panel
(IW-VI-24-MNT)

24-position, DB9,
Turnaround Panel
(IW-24-D9)

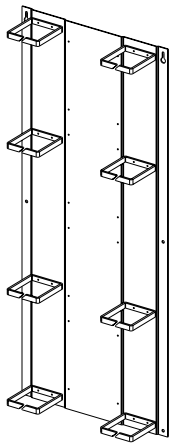
Frame (I-W-MKIV-PNL)
with 24-position E3 (IW-24-AMP-E3)
and 24-position E3-AMP (IW-24-AMP-E3)

24-position, RJ45 OATSE/CAT6
Ethernet Bulkhead Panel
(IW-5E-24)





Mounting hole pattern
for wall mount panels



Modular Systems and Cable Management

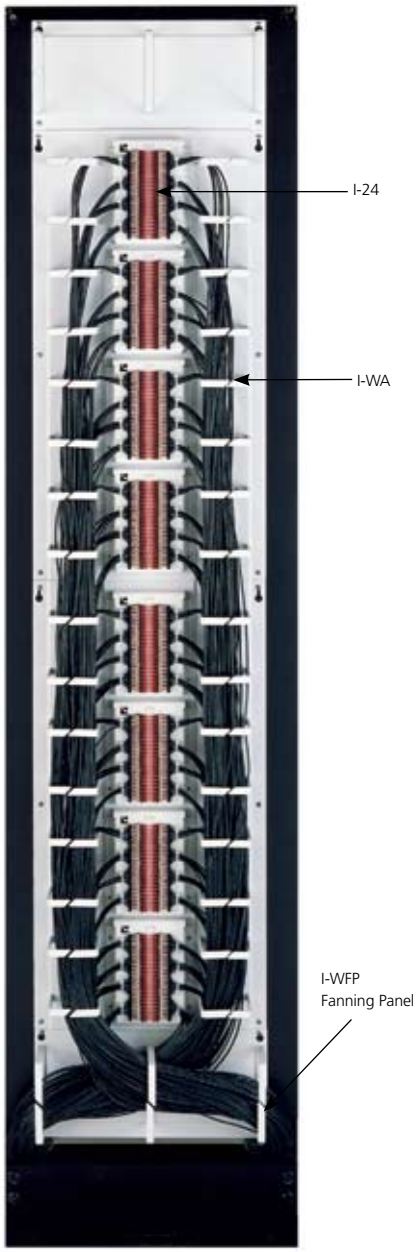
ICON® – Audio Wall-Mount System

The ICON I-W is a wall-mount audio cable management system ideally suited for use where floor space is at a premium but wall space is available. The convenient front-facing design mounts flat against the wall and provides two appearances of each circuit on the terminal blocks.

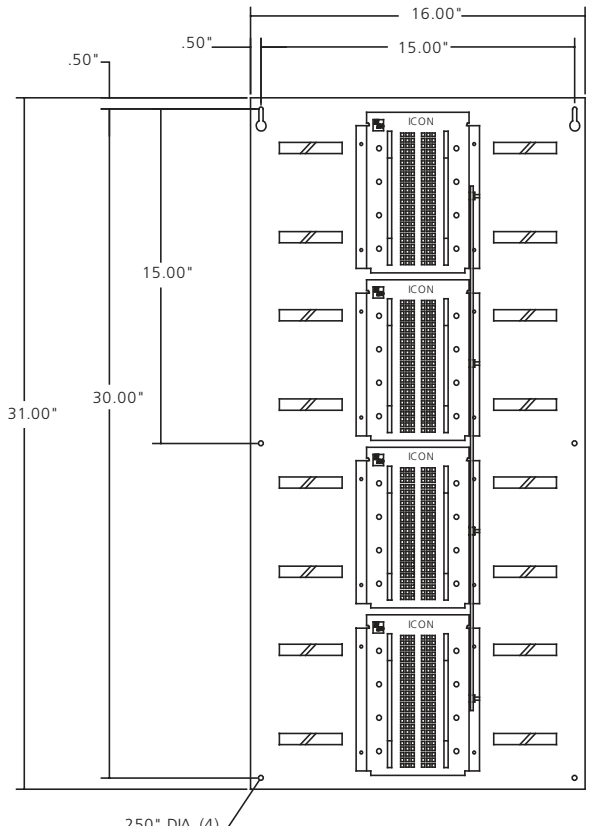
Cabling to and from your equipment punches down on the right side array of contacts, and cross-connections to these circuits are made on the left side array of contacts. This makes it easy to change cross-connections without disturbing equipment wiring.

An I-W system is assembled from the following components:

- I-WA (jumpered side to side with a bussed shield system) or I-WB (jumpered side to side with isolated shields) wall-mount frame holds four I-24 QCP terminal blocks
- I-24 QCP termination block terminates or cross-connects 24 balanced audio circuits



I-W System
(handles 192 balanced audio pairs in 16-inches by 5-feet)



Frame Dimensions
I-WA/I-WB

Note: MKIV dimensions are different. Contact ADC for dimensions.

Modular Systems and Cable Management

ICON® – Audio Super High-Density Wall-Mount System

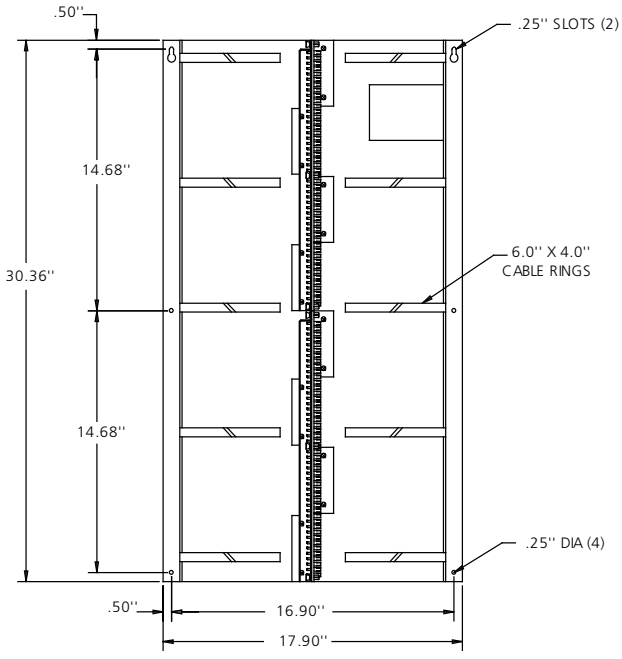
The ICON I-WS is a super high-density wall-mount cable management system engineered for maximum space efficiency. The I-WS system terminates or cross-connects up to 192 balanced audio circuits in a 31.0 x 17.9-inch (79.0 x 45.5 cm) QCP II frame or in a 34.6 x 17.9-inch (87.9 x 45.5 cm) QCP IV frame. The I-WS frame holds two 96-circuit QCP II or QCP IV punchdown panels mounted on edge, 90 degrees relative to the wall to provide access to connections on both sides, an extremely space-efficient arrangement. Cabling from your equipment connects on the left side of the panel, and the feedthrough design allows cross-connect access to those circuits on the right side without affecting the equipment wiring. Two I-WS frames can be stacked to achieve 384 balanced audio pairs in only 62-inches of vertical wall space.

Two stacked I-WS frames
(provides 384 balanced audio pairs in 62-inches of vertical wall space)

I-WS System Components

The I-WS system consists of the following main components. You can start with a single frame and panels and expand to additional frames as needed.

- I-WS wall-mount frame holds two I-WS-PANEL assemblies and includes vertical cable rings and fanning strips terminating a total of 192 circuits
- QCP II or QCP IV 96-circuit punchdown terminal block panel mounts in the I-WS-PANEL
- I-WSET express trough mounts above or below I-WS frame and routes cables horizontally



I-WS Frame Dimensions

Note: MKIV dimensions are different. Contact ADC for dimensions.

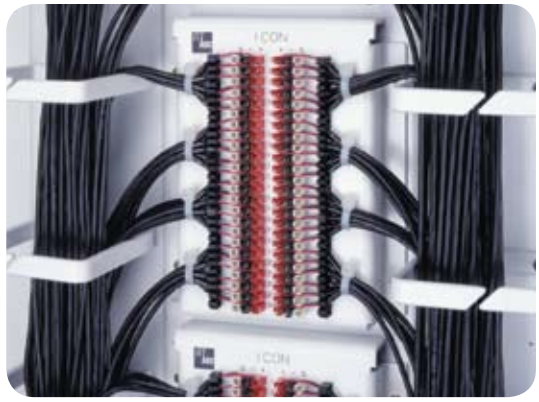
Express Trough
(I-WSET)
(see accessories)

Modular Systems and Cable Management

ICON® – Audio Termination Blocks

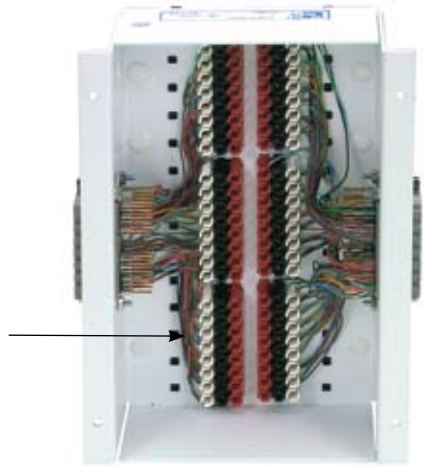
Features

- Termination block sizes and connectors are available, including 12-, 24-, 32-, 48-, and 52-circuits as well as QCP II, QCP IV, AMP 50-pin receptacle, and EDAC 90-pin plug
- Rack-mounting kit holds two I-24 termination blocks as an alternative to wall-mounting



QCP II Termination Block
(I-24A)

QCP IV to EDAC 90-Pin Plug
Termination Block
(front view)
(I-24E90-MKIV)



QCP IV to EDAC 90-Pin Plug
Termination Block
(rear view)
(I-24E90-MKIV)

Contact ADC for additional connectorized versions.

Modular Systems and Cable Management

ICON® – Video Wall-Mount System

For facilities where rack space is at a premium but wall space is readily available, ADC offers the VIW Video ICON wall-mount video bulkhead panel series. These tough powder-coated steel panels mount on the wall and provide from eight to 96 video bulkhead connectors for managing cables between racks or between studios. Top-quality 3 GHz bulkhead connectors ensure the best video performance from analog to HDTV transmission rates.

- VIW-8 (1x8) and VIW-408 (4x8) for small applications
- VIW-424 (4x24), VIW-64 (2x32), and VIW-72 for intermediate size applications. The VIW-64 is ideal for managing cables for a 64-input router matrix
- VIW-96 (3x32) for larger uses, such as organizing inputs and outputs for a large router matrix
- Cable support bars or rings included on most models

8-Connector Bulkhead Wall-Mount Panel
(VIW-8)

24-Connector Bulkhead Wall-Mount Panel
(VIW-24)

64-Connector Bulkhead Wall-Mount Panel
(VIW-64)

Modular Systems and Cable Management

ICON® – Ordering Information

Ordering Information

Description	Dimensions	Catalog Number
Audio/Video/Data Modular Wall-Mount System (may be mounted individually or attached to an I-W frame)		
Wall-mount empty frame with cable management. Allows up to 4-IW blocks		I-W-MKIV-PNL
Wall-mount block, 24 position, E3-AMP		IW-24-AMP-E3
Wall-mount block, 24 position, DB-9		IW-24-D9
Wall-mount block, 24 position, E3		IW-24-E3
Wall-mount block, 24 position, RJ		IW-5E-24
Wall-mount block, 24 position, BNC		IW-VI-24-MNT
Audio Wall-Mount Systems		
Wall-mount frame with four I-24A QCP II blocks for terminating or cross-connecting 96 balanced audio circuits	79 cm x 41 cm (31"x16")	I-WA
I-WA with QCP IV connectors	97.8 x 40.70 cm (38.5" x 16")	I-WA-MKIV
I-WA with QCP IV to ELCO/EDAC 90-pin plugs	97.8 x 40.70 cm (38.5" x 16")	I-WA-E90-MKIV
I-WA with I-24B QCP II blocks that have floating shield terminations		I-WB
I-WB with QCP IV blocks	97.8 x 40.70 cm (38.5" x 16")	I-WB-MKIV
I-WB with QCP II to AMP 50-pin receptacles		I-WB-AMP
I-WS wall-mount frame includes I-WS-PANEL with QCP II or QCP IV connector blocks mounted 90° from the wall. Terminates or cross-connects 192 balanced audio circuits	79 cm x 45.5 cm (31" x 17.9")	I-WS
	87.9 x 45.5 cm (34.6" x 17.9")	I-WS-MKIV
Audio QCP Termination Blocks		
Terminates and cross-connects 24 balanced audio circuits; each circuit appears on two arrays (left and right) of QCP II on each block and are jumpered on the rear of the block; shield terminals are multed together and brought out to an insulated terminal post on the side of the block to allow grounding of the system to a common point.	17.78 x 15.24 x 2.54 cm (7" x 6" x 1")	I-24A
I-24A with with floating shield terminals, and no grounding terminal on side, strapped on jumpers		I-24B
I-24A with no rear jumpers and no grounding terminal on side		I-24C
Same as I-24A except 27 circuits	19 cm x 15 cm x 2.54 cm (7.5" x 5.9" x 1")	I-27A
Same as I-24A except uses improved MKIV QCP termination. Terminates and cross-connects 24 balanced audio circuits on two arrays (left and right) on each block and is jumpered on rear of block; shield terminals are multed together and brought out to an insulated terminal post on side of block	22.2 cm x 15 cm x 2.54 cm (8.75" x 5.9" x 1")	I-24A-MKIV
Same as I-24A-MKIV except with floating shield terminals and no grounding terminal on side	22.2 cm x 15 cm x 2.54 cm (8.75" x 5.9" x 1")	I-24B-MKIV
Same as I-24A-MKIV except with no rear jumpers and no grounding terminal on side	22.2 cm x 15 cm x 2.54 cm (8.75" x 5.9" x 1")	I-24C-MKIV

Modular Systems and Cable Management

ICON®– Ordering Information

Ordering Information

Description	Number of Circuits	Catalog Number
Video Wall-Mount Systems		
1x8 wall mount bulkhead panel, fits on I-W Frame	8	VIW-8
3x8 wall mount bulkhead panel, fits on I-W Frame	24	VIW-24
24-circuit bulkhead panel	24	VIW-408
64-circuit bulkhead panel	64	VIW-64
72-circuit bulkhead panel	72	VIW-72
96-circuit bulkhead panel	96	VIW-424
96-circuit bulkhead panel	96	VIW-96

Ordering Information

Description	Dimensions	Catalog Number
Audio Wall-Mount Accessories		
Fanning Panels; Mounts above, between or below I-WA or I-WB frames to route cabling between frames.	19 cm x 41 cm (7.5"x16")	I-WFP
Cable Ring; Cable ring for use with I-WFP mounts on the wall above, between, or below frames or fanning panels.	4.5"D x 5.5"W	I-WFP-RING
Rack-Mounting Kit; Holds two I-24s in a standard 48 cm (19") rack		I-24R
Icons empty panel mounts on the I-WS frame and holds the QCP blocks.		I-WS-PANEL
Cable Management express trough mounts above, between, or below I-WS and routes cabling horizontally between frames.	19 cm x 45 cm (7.5" x 17.9")	I-WSET

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Modular Systems and Cable Management

ICON® – Audio Rack-Mount Systems

Modular Rack-Mountable Components

The system is built around rack-mountable modular components that you can assemble in different combinations to create the system you require:

- The I-96 QCP II or QCP IV punchdown connection panel terminates and cross-connects 96 balanced audio circuits in 2 RU
- The I-FPB or I-FPD fanning panel dresses and provides strain relief for cables above or below the I-96 panel. Models are available in 1 RU and 2 RU
- Rack-mounted cable troughs and rings are available in various configurations to guide cables in the rack or along rack rails
- I-96 connectors available include QCP II, QCP IV, AMP 50-pin receptacle, and EDAC 90-pin plug

I-96 System
(rear view)

2 RU QCP IV Panel
(I-96B-MKIV)

(rear view showing jumpers)

3 RU QCP II Hinged Termination Panel
(I-96S)

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Modular Systems and Cable Management

ICON® – Audio Rack-Mount Systems

The ICON I-96 high-density rack-mount audio cable management system installs in a standard 19-inch (48 cm) EIA equipment rack and is engineered for easy access to front and rear connections. The rack-mounted QCP II or QCP IV punchdown panels are quick to connect, and the feedthrough design allows changing of cross-connection jumpers on the front without disturbing connections on the rear. Multiple I-96 panels can be installed for up to 768 circuits in a fully loaded 7-foot rack.

1 RU Dsub9 Feedthrough Rack-Mount Control Panel Breakout Panel
(I-116-D9F)

2 RU QCP IV/DB-25 Rack-Mount Panel
(I-DB25)

2 RU QCP II/EDAC 90-Pin Plug Rack-Mount Panel
(I-96-E)

2 RU AMP 50-Pin Receptacle Panel (Rear View)
(I-96-AMP)

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Modular Systems and Cable Management

ICON® – Video Rack-Mount Systems

Durable Rack-Mounted Video Bulkhead Panels

The ICON VI series is a complete line of 19-inch (48 cm) rack-mounted bulkhead video cable management panels starting from the small 12-circuit VI-12 panel to the full-sized VI-48 with 48 bulkhead coax circuits. Each panel is made of the same strong powder-coated steel and uses high-quality 3 GHz coax bulkhead connectors suitable for HDTV.

- VI-12 and VI-16 2 RU panels handle 12 or 16 circuits for small applications, such as organizing monitor outputs or the inputs and outputs of a small router
- VI-24 and VI-32 2 RU panels provide 24 and 32 circuits for moderately-sized applications, such as feeding cables to a 32-input router
- The VI-132 (2x32) 1 RU panel provides the largest number of inputs and outputs in the smallest space
- VI-48 2 RU panel handles 48 circuits for larger applications
- Colors available include white, putty white, and black
- Some models include designation strip holders for circuit identification
- Insulated and non-insulated available
- 23" panels are also available

Exclusive ADC Closed-entry Center Pin Resists Damage

Conventional Center Pins
Prone to Damage

75 Ω 12-circuit BNC Panel
(VI-12-PTY)

75 Ω 48-circuit BNC Panel
(BNC-BLK-48)

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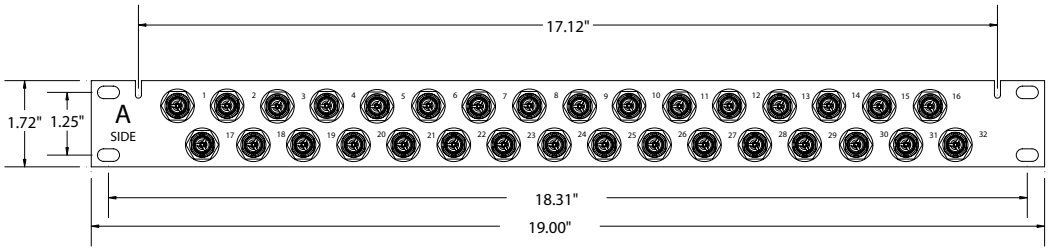
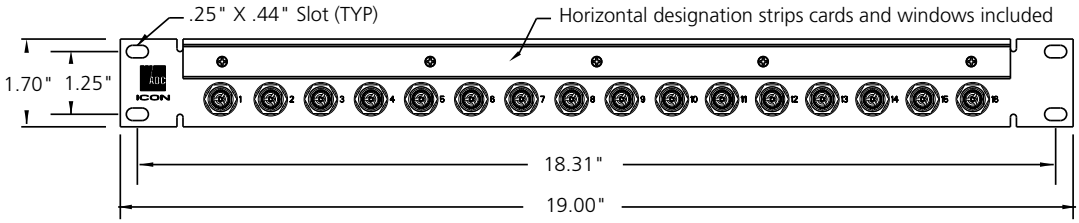
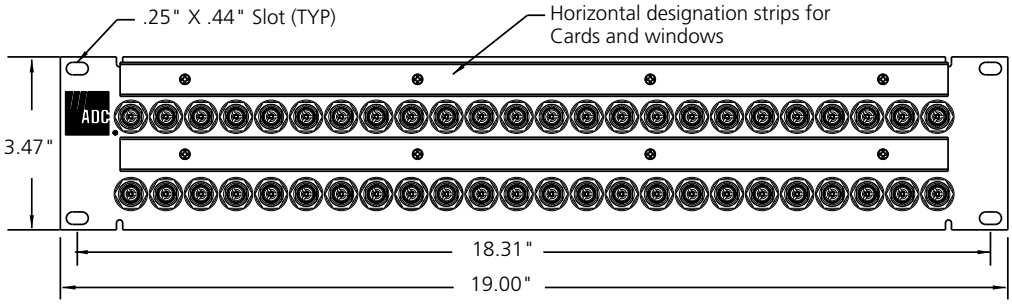


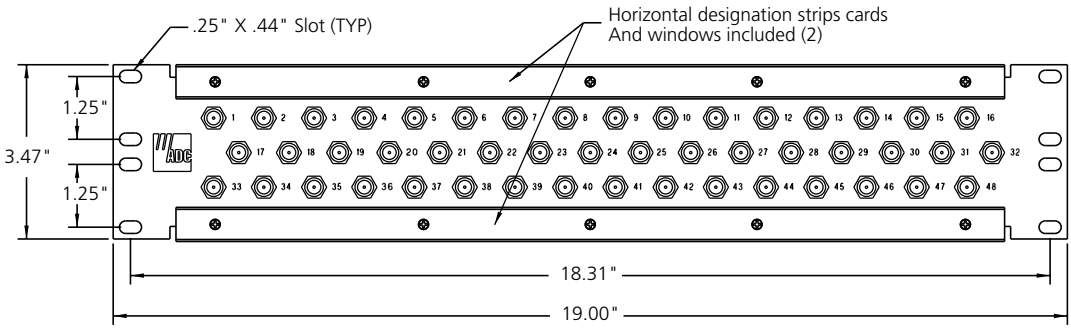
32-Circuit 1 RU BNC Bulkhead Panel
(VI-132-SS-BK)



16-Circuit 1 RU BNC Bulkhead Panel
(VI-116-DES-W)



48-Circuit 2 RU BNC Bulkhead Panel
(VI-48-19-TTDES-BK)



48-Circuit 2 RU F81 Connector Bulkhead Panel
(VI-48F-19-PTY)

Ordering Information

Description	Catalog Number
Audio Rack-Mount Systems	
Audio QCP Panels – EIA Rack-Mount 19"	
2 RU panel QCP II cross-connects, 96 balanced audio circuits	I-96
2 RU panel QCP IV cross-connects, 96 balanced audio circuits	I-96-MKIV
2 RU QCP II to ELCO/EDAC 3-pin plug, cross-connects, 96 audio circuits	I-96-3E
2 RU QCP II to AMP 50-pin receptacle, cross-connects, 96 audio circuits	I-96-AMP
2 RU QCP II to EDAC 90-pin plug, cross-connects, 96 audio circuits	I-96-E
2 RU QCP II with rear jumpers, cross-connects, 96 audio circuits	I-96B
2 RU QCP IV with rear jumpers, cross-connects, 96 audio circuits	I-96B-MKIV
2 RU QCP IV hinged left, cross-connects, 96 audio circuits, black	I-96S-MKIV-BK
3 RU QCP II for 23" rack, cross-connects, 96 audio circuits	I-96S
1 RU panel Dsub9 receptacles, 1x16	I-116-D9F
2 RU hinged panel QCP II cross-connects, 96 balanced audio circuits	I-96S-19B
1 RU panel QCP IV cross-connects, 32 balanced audio circuits	I-32-DES-W
2 RU panel QCP II cross-connects, 48 balanced audio circuits	I-48
2 RU panel QCP II to AMP 50-pin receptacle, 52 circuits	I-52-AMP
1 RU panel QCP II to EDAC 90-pin plug, 52 circuits	I-52-E
1 RU panel QCP IV cross-connects, 16 balanced audio circuit and 1 video bulkhead feedthrough	I-CS-V8
2 RU panel QCP II to (4) DB25 connectors	I-DB25

All products listed above are white unless otherwise noted.

Modular Systems and Cable Management

ICON®– Ordering Information

Ordering Information

Description	Catalog Number
Audio Accessories	
Fanning Panels – EIA Rack-Mount 19"	
2 RU panel with cable rings for routing cables horizontally. Used with multiple racks with I-FL (listed below) mounted between racks to route cables vertically and provide additional strain relief	I-FPD
1 RU panel with cable rings for routing cables horizontally. Used with multiple racks with I-FL (listed below) mounted between racks to route cables vertically and provide additional strain relief	I-FPD-1RU
2 RU panel with rings for horizontal or vertical cable routing Includes 2 rings to vertically route cables in the rear; to be used with a standalone channel rack	I-FPB
Vertical Cable Ring/Spacers	
Functions as a spacer mounted between channel racks and routes cabling from both the front and the rear of I-FPBs	I-FL
Ring for vertical cable routing; mounts on front or rear rack rails	I-VR
Express Troughs – EIA Rack-Mount 19"	
2 RU express trough for horizontal cable routing between racks	I-ET-3
3 RU express trough for horizontal cable routing between racks	I-ET-5
4 RU express trough for horizontal cable routing between racks	I-ET-7

All products listed above are white unless otherwise noted.

Express Trough
(I-ET)

Fanning Panel
(I-FPB)

Fanning Panel
(I-FPD)

Vertical Ring
(I-VR)

Fanning Panel
(I-FL)

Ordering Information

Description	Number of Circuits	Catalog Number
Video Rack-Mount Systems		
19" Rack Mount BNC Bulkhead Panels, 75 Ω		
2 RU 2x6, putty	12	VI-12-PTY
2 RU 2x6, white	12	VI-12-W
1 RU 1x16 with designation strips, white	16	VI-116-DES-W
2 RU 2x8 with designation strips, putty	16	VI-16-PTY
2 RU 2x10 with designation strips, putty	20	VI-20-PTY
2 RU 2x12, putty	24	VI-24-PTY
2 RU 2x12 with vertical and horizontal rings, black	24	VI-24VHR-BK
1 RU 2x16, black	32	VI-132-SS-BK
2 RU 2x16 with designation strips, black	32	VI-32-BK
2 RU 2x16 with designation strips, putty	32	VI-32-PTY
2 RU 2x16 with upper and lower designation strips, white	32	VI-32-W
2 RU 2x16 with lower and middle designation strips, white	32	VI-32-DES-W
2 RU 3x16 with designation strips, black	48	VI-48-BK
2 RU 3x16 with designation strips, putty	48	VI-48-PTY
2 RU 3x16 with designation strips, white	48	VI-48-W
2 RU 2x24 with designation strips, black	48	VI-48-TTDES-BK
2 RU 2x24 with designation strips, gray	48	VI-48-TTDES-G
1 RU 2x16 empty BNC panel for ADC bulkhead BNCs	32	VI-132-PNL-BK
23" Rack Mount BNC Bulkhead Panels, 75 Ω		
2 RU 2x18 with top and bottom designation strips, putty	36	VI-36-23-DES-PTY
2 RU 2x24 with upper and lower designation strips, black	48	VI-48-23-DES-BK
2 RU 2x24 with upper and middle designation strips, black	48	VI-48-23-TT-DES-BK
75 W 19" Rack Mount BNC Bulkhead Panels with cable tray		
2 RU 2x6 with cable tray, white	12	VI-12-TR-W
2 RU 2X12 with cable tray, white	24	VI-24-TR-W
1 RU 2x16 with cable tray, black	32	VI-132-TR-BK
2 RU 2x16 with cable tray, putty	32	BNC-BLK-32-TR75
23" Rack Mount BNC Bulkhead Panels with Cable Tray, 75 Ω		
2 RU 2x14 with cable tray, putty	28	VI-28-BBG
2 RU 2x18 with cable tray, black	36	BNC-BLK-36-TR-1U-B
2 RU 2x24 with cable tray, black	48	BNC-BLK-48-TR-2U-B
2 RU 2x24 with cable tray, putty	48	BNC-BLK-48-TR-2U-P
F Connector Rack Mount Bulkhead Panels, 75 Ω		
2 RU 1x6 BNC, 1x6 F connector with tray, white	12	VI-12-BNC-F-W
1 RU 19" 1x16 F connector panel with designation strip, putty	16	VI-16F-19-PTY
2 RU 19" 3x16 F connector panel with designation strip, putty	48	VI-48F-19-PTY
2 RU 23" 2x24 F connector panel with designation strip, putty	48	VI-48F-23-PTY

Broadcast and Entertainment Products

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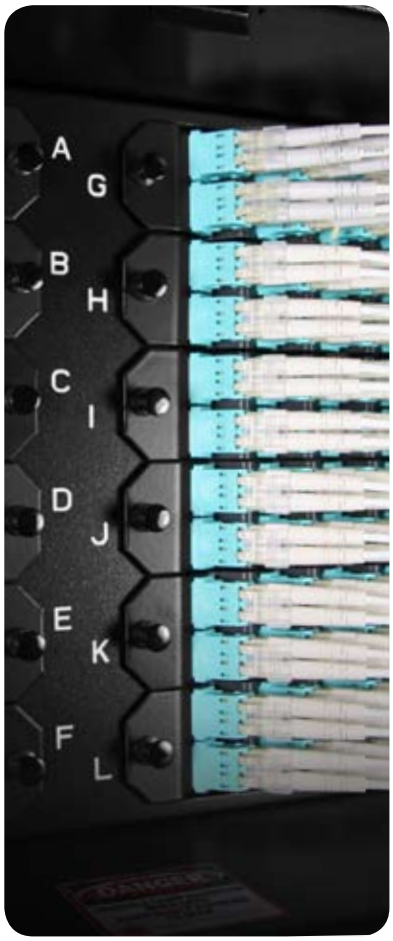
Broadcast Fiber Connectivity Solutions



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Fiber Connectivity Solutions

Introduction

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Fundamentals of Fiber Cable Management

In the backbone or to the desk, optical networks achieve peak performance with ADC's fiber connectors, patch cords, raceways, and panels featuring integrated cable management and bend radius protection.

Proper cable management practices make fiber networks less susceptible to accidental damage, quicker to install, less expensive to own and operate over the long haul and easier to expand as needs grow. To assure optimal network performance, ADC's fiber solutions fully incorporate key cable management concepts:

Bend radius protection: Micro- or macro-bends in fiber cable increase the risk of fiber breakage and added attenuation, which in turn affect the long-term reliability of the network and increase the cost of operations.

Adequate cable troughing with clear routing paths: Cable troughing should keep fiber runs separate from heavier copper cables. Routing paths through the cable troughs should be clearly defined and easy to follow, making access to individual fibers easier, quicker and safer, reducing the time required for reconfiguration.

Easy accessibility to installed fibers: Access to installed fibers should ensure that any fiber can be installed or removed without inducing improper bends on adjacent fiber. Accessibility is most critical during network reconfiguration operations and directly impacts the cost of operations and reliability of the network.

Vertical cable protection: Proper vertical cable management in panels or equipment bays provides adequate support, cable protection and a transition from the vertical run to the back of the equipment that does not damage the fiber.

Fiber Panels and Wall Boxes

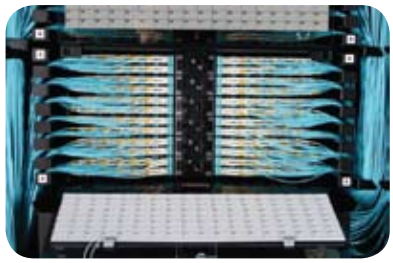
	TFP Rack Mount	FL2000 Rack Mount
Sizes available (standard LC connectors)	48, 96, 288	24, 48, 72, 96, 144, 192
Wall Mount	No	Yes
Rack Mount	19"/23"/ETSI	19"/23"/ETSI
Cabinet Mount	Yes	Yes
Interface Type	Angled adapter pack	6pak
Degree of Cable Management	Moderate	Moderate
Allows additional growth	Ideal	Ideal
LC Compatible	Yes	Yes
Quad LC Compatible	No	No

Best Applications for Fiber Panel Portfolio		
Name of Product	**Best Application**	**Features at a Glance**
FL2000 Series	Termination/Splice applications	Locking or latching door, within panel splice wheel, all front access, modular left angle 6paks.
TFP Series	Rack or Cabinet mount near servers, switches, routers and SANs	Angled left/right adapter packs, highest density with maximum cable management.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

TFP Series Rack Mount Fiber Panels



The TrueNet® Fiber Panel (TFP) Series can be ordered in one, two and five rack unit sizes and are completely modular to configure to a variety of applications. The unique modular adapter packs incorporate ADC's angled adapter design to allow easy access to each port and superior cable management and bend radius protection.

Features

- TFP panels combine the unique features of vertical cable guides and angle-left/angle-right adapters, offering bend radius protection, intuitive routing and easy connector access
- Rear access makes field termination or splicing fast and efficient. 1U and 2U versions feature convenient sliding access to terminations and splicing
- Sold separately for maximum flexibility with minimum lead time, TFP series adapter packs can also be pre-configured at the factory for more efficient service turn-up
- 288-position high-density termination/splice in the space of just five rack units (8.75-inch)
- Panels are equipped with adjustable mounting brackets to provide either 19- or 23-inch rack or cabinet mounting (EIA or WECO) as well as 4- or 5-inch recess mounting
- Field-installable vertical cable guides on either side of the panel provide bend radius protection and management of fibers exiting the panel

Applications and Benefits

- Best suited for rack or cabinet mounting in Horizontal and Equipment Distribution Areas
- Modularity, functionality and density make the TFP ideal for mounting in close proximity to servers, switches, routers and SANs

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Fiber Connectivity Solutions

TFP Series Rack Mount Fiber Panels

Product Overview

Recommended Applications	**Multi-purpose high density modular solution ideal for cabinet or rack mount applications near servers, switches, routers and SANS**
Description	Termination, termination/splice
Chassis sizes (in rack units)	1, 2, and 5
Termination only capacity using: **Simplex adapters** **Duplex adapters** **Small form factor (LC)**	 24, 48, 144 24, 48, 144 48, 96, 288
Flexibility/ ablity to grow	Ideal for growth
Interconnect	Yes
Cross-connect	Yes
Accommodates on-frame splicing	Yes. Built-in
Rear access	Yes
All-front-access	No
Customer premises application	Ideal
19" mounting	Yes
23" mounting	Yes
Cabinet mount	Yes
Wall mount	No
Mix equipment with fiber product?	Ideal
Vertical cable guide	Ships with every panel
Features at a Glance	Angled left/right adapter packs, highest density with maximum cable management features.

Specifications

Storage/operating temperature: 40 to 85 ° C (-40 to 185 ° F)

Approximate weight (empty panel)

1 RU model: 10.25 lbs
2 RU model: 8.25 lbs
5 RU model: 15.86 lbs

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Fiber Connectivity Solutions

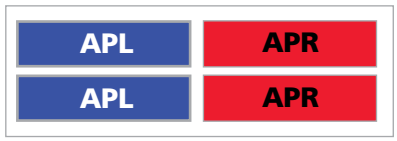
TFP Series Rack Mount Fiber Panels

Panel Configurations

TFP Series chassis utilize modular adapter packs that are unique to either the right or left position of the chassis. The left/right position must be specified to ensure proper adapter orientation and color order in the backplane. The information below illustrates the vartious configurations for the three TFP chassis.

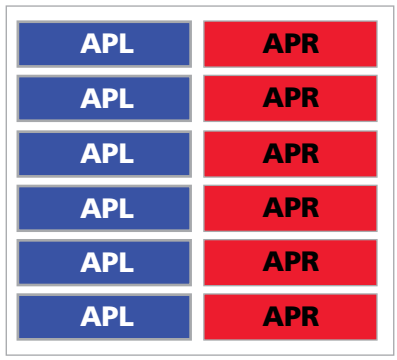
1 RU Chassis

2 RU Chassis



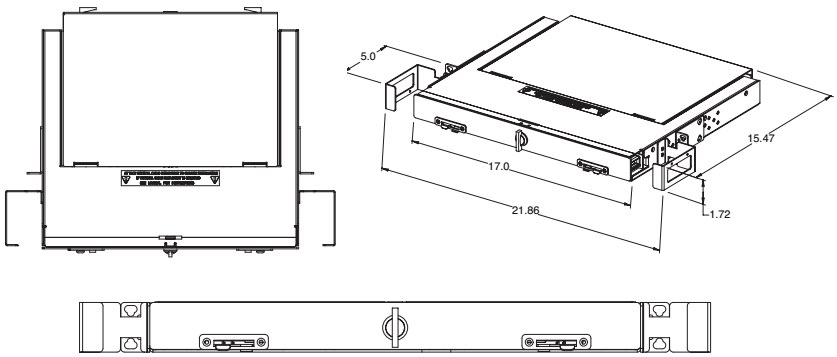
APL = angle left adapter pack
APR = angle right adapter pack

5 RU Chassis

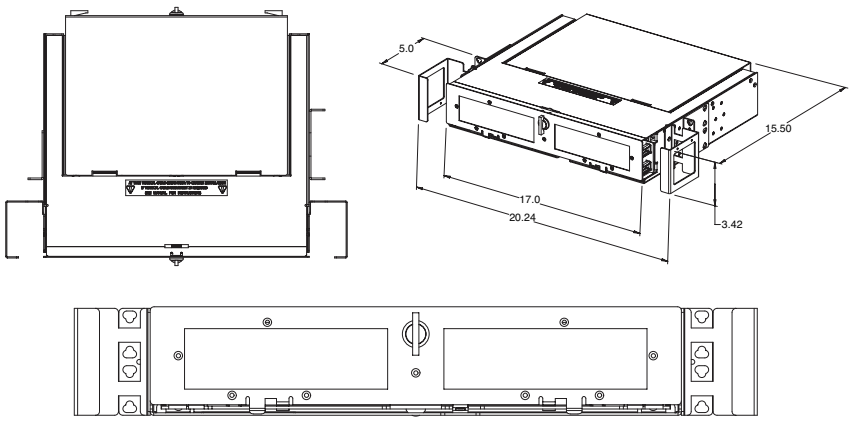


Chassis Dimensions

1 RU Model



2 RU Model

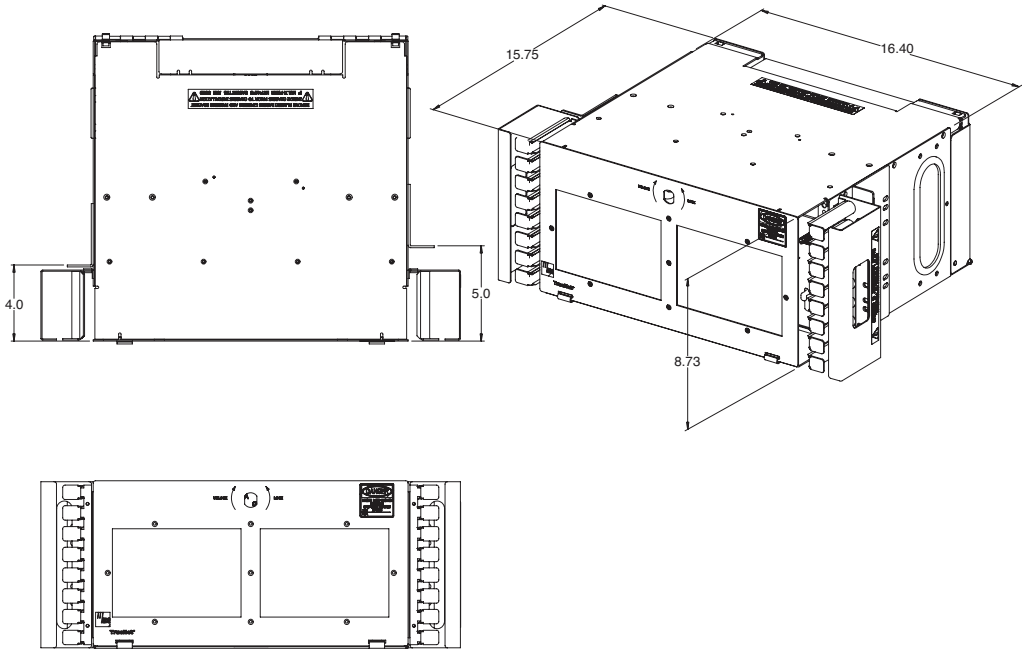


For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

TFP Series Rack Mount Fiber Panels

5 RU Model



TFP Series Empty Chassis

The TFP series chassis can be purchased without adapter packs. In this form, the end-user can mix and match any combinations of modular TFP adapter packs or simply utilize a "grow as you go" approach to their network.

Ordering Information

Description	Height	Catalog Number
Termination only rack or cabinet mount panel, black 1 RU empty panel, black; accommodates 1 angle LEFT and 1 angle RIGHT adapter packs; T-handle latch close	1.75"	TFP-1TT00-000B
2 RU empty panel, black; accommodates 2 angle LEFT and 2 angle RIGHT adapter packs; T-handle latch close	3.50"	TFP-2TT00-000B
5 RU empty panel, black; accommodates 6 angle LEFT and 6 angle RIGHT adapter packs; T-handle latch close	8.75"	TFP-5TT00-000B
5 RU empty panel, black; accommodates 6 angle LEFT and 6 angle RIGHT adapter packs; key-lock close	8.75"	TFP-5LT00-000B
Accessories Heat Shrink Fusion Splice Tray		FST-HS-48
Velcro Kit for Splice Tray		TFP-VELSTP
Blank plates		TFP-00AP00

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

TFP Series Rack Mount Fiber Panels

TFP Series Standard Adapter Packs

The TFP series offers a variety of standard modular adapter packs to accommodate most applications. The modular design is user-friendly and offers maximum flexibility to the end-user. ADC's standard adapter pack offerings are multimode LC (beige), multimode LC (aqua), multimode SC duplex (beige), multimode SC duplex (aqua), singlemode LC and singlemode SC adapters with and without pigtails. (For other adapter pack offerings, see the custom configuration section).

The TFP modular adapter packs can only be used with the TFP series panels. Each adapter pack contains labels that make it able to be loaded correctly in only one side of the panel. These craft friendly labels help insure correct installation. The TFP adapter packs are not interchangeable with other ADC panels.

Ordering Information

Description	Catalog Number
Multimode Adapter only Packs SC duplex adapters, beige color 6 adapters or 12 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-12APLC3
Angle **RIGHT** adapter only pack	TFP-12APRC3
SC duplex adapters with zirconia sleeve, aqua color 6 adapters or 12 fiber ports per adapter pack[1]	
Angle **LEFT** adapter only pack	TFP-12APLC4
Angle **RIGHT** adapter only pack	TFP-12APRC4
LC adapters, beige color 12 adapters or 24 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-24APLQ1
Angle **RIGHT** adapter only pack	TFP-24APRQ1
LC adapters with zirconia sleeve, aqua color 12 adapters or 24 fiber ports per adapter pack[1]	
Angle **LEFT** adapter only pack	TFP-24APLQ2
Angle **RIGHT** adapter only pack	TFP-24APRQ2
Singlemode Adapter Packs SC duplex adapters with zirconia, blue color 6 adapters or 12 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-12APLC8
Angle **RIGHT** adapter only pack	TFP-12APRC8
LC adapters with zirconia sleeve, blue color 12 adapters or 24 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-24APLQ5
Angle **RIGHT** adapter only pack	TFP-24APRQ5

[1] ADC recommends the use of aqua colored adapters with laser-optimized multimode fiber for 10 Gigabit applications for circuit identification.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

TFP Series Rack Mount Fiber Panels

TFP Series Standard Adapter Packs with Pigtails

Ordering Information

Description	Catalog Number
Multimode Adapter Packs with 50/125 multimode pigtails SC duplex adapters, beige color 6 adapters or 12 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-12APLC3CE3
Angle **RIGHT** adapter only pack	TFP-12APRC3CE3
LC duplex adapters, beige color 6 adapters or 12 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-24APLQ1CE3
Angle **RIGHT** adapter only pack	TFP-24APRQ1CE3
Multimode adapter packs with 50/125 multimode pigtails laser optimized to 300 meters[1] SC duplex adapters with zirconia sleeve, aqua color 6 adapters or 12 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-12APLC4DE3
Angle **RIGHT** adapter only pack	TFP-12APRC4DE3
LC adapters with zirconia sleeve, aqua color 12 adapters or 24 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-24APLQ2DE3
Angle **RIGHT** adapter only pack	TFP-24APRQ2DE3
Singlemode adapter packs with singlemode pigtails SC duplex adapters with zirconia, blue color 6 adapters or 12 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-12APLC8SB3
Angle **RIGHT** adapter only pack	TFP-12APRC8SB3
LC adapters with zirconia sleeve, blue color 12 adapters or 24 fiber ports per adapter pack	
Angle **LEFT** adapter only pack	TFP-24APLQ5SB3
Angle **RIGHT** adapter only pack	TFP-24APRQ5SB3

[1] ADC recommends the use of aqua colored adapters with laser-optimized multimode fiber for 10 Gigabit applications for circuit identification.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Fiber Connectivity Solutions

TFP Series Rack Mount Fiber Panels

TFP Series Custom Adapter Packs

ADC's TFP modular adapter packs are also available in additional adapter styles of 3 meter pigtails. Please note, these products are non-standard or custom configurations based on the end user's needs.

Catalog Number

TFP - __ AP ____

Number of Fiber Ports

12	12 fiber ports: 6 LC adapters; 6 SC duplex adapters; 12 ST adapters
24	24 fiber ports: 12 LC adapters

Pack Orientation

P	Pair
L	angle left
R	angle right

Adapter Style

Multimode Connectors	
C3	SC duplex (beige)
C4	SC duplex (aqua) with zirconia sleeve
Q1	LC (beige)
Q2	LC (aqua) with zirconia sleeve
T1	ST®
Singlemode Connectors	
C8	SC duplex (blue) with zirconia sleeve
A1	SC duplex (green) angled polished (APC) with zirconia sleeve
Q5	LC (blue) with zirconia sleeve
T2	ST

Pigtail Length

LEAVE BLANK	Adapters only
3	3 meter pigtails

Pigtail Type

LEAVE BLANK	Adapters only
B	Singlemode stranded
E	Multimode stranded

Fiber Size

LEAVE BLANK	Adapters only
B	Multimode 62.5/125
C	Multimode 50/125
D	Multimode 50/125 ultra (laser optimized to 300 meters)
S	Singlemode

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

TFP Series Rack Mount Fiber Panels

Pre-configured TFP Series Custom Termination/Splice Fiber Panels

ADC's TFP series fiber panels are available to be shipped with factory installed adapter packs and/or preterminated pigtail assemblies which simplifies the ordering process and reduces installation and costs. These products are non-standard or custom configurations based on the end user's needs.

* Not all configurations available. Please call customer service for additional information.

Catalog Number

TFP - _ _ _ _ - _ _ B

Panel Size

1T	1U (1.75")	Accommodates 2 adapter packs; T-handle latch
1L	1U (1.75")	Accommodates 2 adapter packs; key-lock latch
2T	2 RU (3.50")	Accommodates 4 adapter packs; T-handle latch
2L	2U (3.50")	Accommodates 4 adapter packs; key-lock latch
5T	5 RU (8.75")	Accommodates 12 adapter packs; T-handle latch
5L	5 RU (8.75")	Accommodates 12 adapter packs; key-lock latch

Splice Deck Type

0	None
1	Heat shrink fusion

Loaded Adapter Packs

02	2 adapter packs loaded
04	4 adapter packs loaded
06	6 adapter packs loaded
08	8 adapter packs loaded
12	12 adapter packs loaded

Panel/Pigtail Type

A	Termination only with adapter packs, no pigtails
P	Termination/Splice with adapter packs with singlemode stranded pigtails
B	Termination/Splice with adapter packs with 50/125 multimode stranded pigtails
D	Termination/Splice with adapter packs with 50/125 multimode stranded ultra pigtails (laser optimized to 300 meters)
E	Termination/Splice with adapter packs with 62.5/125 multimode stranded pigtails

Connector Style

Multimode Connectors	
C3	SC duplex (beige)
C4	SC duplex (aqua) with zirconia sleeve
Q1	LC (beige)
Q2	LC (aqua) with zirconia sleeve
T1	ST®
Singlemode Connectors	
C8	SC duplex (blue) with zirconia sleeve
A1	SC duplex (green) angle polished (APC) with zirconia sleeve
Q5	LC (blue) with zirconia sleeve
T2	ST

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

FL2000 System

FL2000 termination only chassis

FL2000 termination/splice chassis

The economical and flexible FL2000 series of fiber optic products is ideal for small fiber counts and can be used in moderate fiber count applications as well by combining various panels.

Features

- Designed for 19-inch (48.26 cm) EIA rack or cabinet environment; optional brackets are available to accommodate 23-inch (58.42 cm) rack or cabinet mounting, or virtually any mounting application
- Modular design offers maximum flexibility to satisfy both current needs and future growth requirements
- A full line of options and accessories ensures compatibility with existing optical equipment
- All FL2000 panels accommodate the modular FL2000 6pak plug-ins. 6paks are available in all connector styles and can be ordered as needed
- ADC's patented removable angled retainers allow easy access for single fiber maintenance
- FL2000 panels and feature superior vertical cable protection and management
- Rack mount panels are hinged on one side, allowing full access to the rear of the front plate and the interior of the panel
- Rack mount panels can be wall mounted
- The new FL2000 splice wheel allows easy roll-up of pigtail and buffer tube lengths and superior bend radius protection

Applications

- Fully adaptable for medium or small count fiber main distribution frame (MDF) or telephone closets for both wall and rack mount applications
- Provides termination, splicing and storage capabilities for in-building cables, outside plant cables and active equipment fiber patch cords

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Fiber Connectivity Solutions

FL2000 System

Product Overview

Recommended applications	Multi-purpose modular solution ideal for cabinet, rack, wall mount or medium size frame applications. Ideal for small to medium fiber counts.
Description	Termination, termination/splice
Chassis sizes (in rack units)	1, 2, 3, 5, 6 (termination only chassis) 2, 3, 5, 8, 10 (termination/splice chassis)
Termination only capacity using: **Simplex adapters** **Duplex adapters** **Small form factor (LC)**	 12, 24, 48, 72, 96 12, 24, 48, 72, 96 24, 48, 72, 144, 192
Flexibility/ ablity to grow	Ideal for growth
Interconnect	Yes
Cross-connect	Yes
Accommodates on-frame splicing	Yes. Built-in
Rear access	Not required
All-front-access	Yes
Customer premises application	Ideal
19" mounting	Yes
23" mounting	Yes
Cabinet mount	Yes
Wall mount	Yes
Mix equipment with fiber product?	Ideal
Vertical cable guide	Ships with every panel
Features at a glance	Locking or latching door, within panel splice wheel, all front access, modular angle left 6paks.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

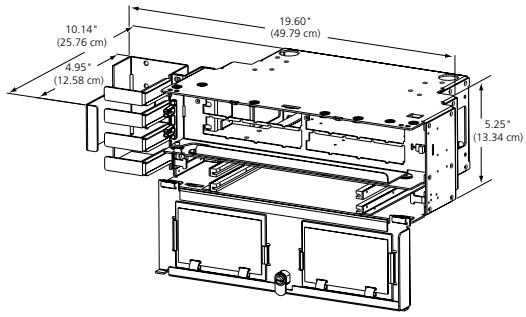
FL2000 System

Empty Termination/Splice Panels, Black

Features

- Mounting
  - 19" (48.26 cm) EIA racks or cabinets, standard 5" (12.7 cm) recess
  - Wall mounting option available
  - Other mounting kits available
- Hinged on left front side[1] for complete access to interior of termination section
- Ability to quickly and easily configure, utilizing the 6pak assemblies (ordered separately)
- Complete line of accessories including locks for security
- Uses ADC splice wheels or splice decks

[1] Right hinged also available



Termination/splice panel

Ordering Information

Description	Panel Height	Catalog Number
Termination/splice panel, black		
12-position	3.5" (8.89 cm)	FL2-12TS350-B
24-position	5.25" (13.34 cm)	FL2-24TS525-B
48-position	8.75" (22.23 cm)	FL2-48TS875-B
72-position	14" (35.56 cm)	FL2-72TS140-B
Splice wheel with splice chip		
Heat shrink fusion		FST-DRS12-HS
Mechanical		FST-DRS12-MT
Nortel		FST-DRS24-NT

Mounting kits sold separately.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Fiber Connectivity Solutions

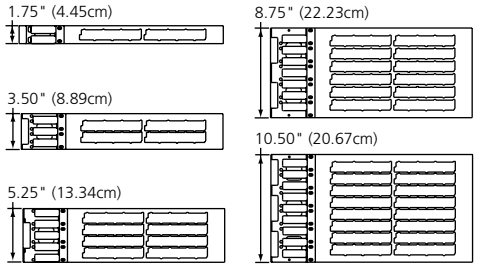
FL2000 System

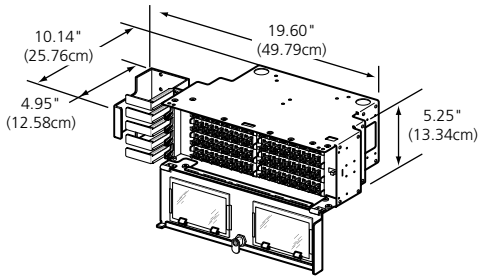
Empty Termination Panels, Black

Features

- Mounting
  - 19" (48.26 cm) EIA rack or cabinets, standard 5" (12.7 cm) recess
  - Wall mounting option available
  - Other mounting kits available
- Hinged on left front side 1; allows full access to rear of front plate and interior of panel
- FL2000 6pak adapter plug-ins ordered separately
- Constructed of high strength aluminum
- Equipped with removable metal doors with Plexiglas windows
- Designation labels included with each panel
- Complete line of accessories including locks for security

[1] Right hinged also available





Ordering Information

Description	Panel Height	Catalog Number
Rack or cabinet mount panel, black; *Includes vertical cable management trough*		
12 fiber capacity	1.75" (4.45 cm)	FL2-12RPNL-B
24 fiber capacity	3.50" (8.89 cm)	FL2-24RPNL-B
36 fiber capacity	5.25" (13.34 cm)	FL2-36RPNL-B
48 fiber capacity	5.25" (13.34 cm)	FL2-48RPNL-B
72 fiber capacity	8.75" (22.23 cm)	FL2-72RPNL-B
96 fiber capacity	10.50" (26.67 cm)	FL2-96RPNL-B
Accessories		
Wall mount bracket, black; *needed for 12 fiber capacity panel only*		FL2-ACC008
Cable clamp kit—*One per cable recommended*		
Outer diameter 0.2" to 0.8"		FL2-ACC007
Outer diameter 0.7" to 1.0"		FL2-ACC021
Cable clamp kit for 12 fiber capacity panel only		FL2-ACC033
Bonding/grounding kit		FL2-ACC006

Mounting kits sold separately.

24 fiber capacity

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

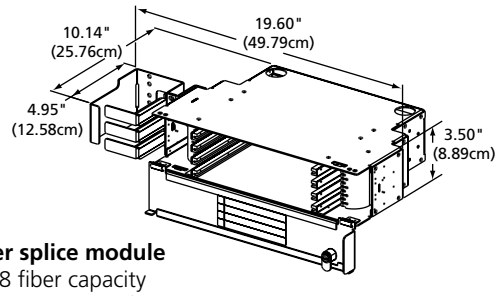
Fiber Connectivity Solutions

FL2000 System

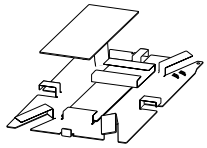
Empty Splice Panels, Black

Features

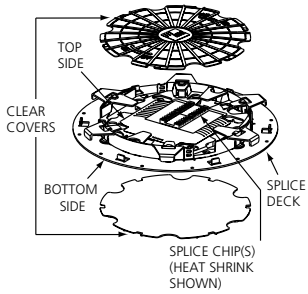
- Offers combination of splicing protection and associated fiber/pigtail storage
- Splice panel can be mounted in conjunction with any FL2000 termination panel or as a stand-alone splice panel
- Occupies same footprint and offers same mounting options as FL2000 termination panels
- Accepts the ADC splice wheel for efficient management of fiber cable and splice protection
- Accepts the traditional ADC splice deck



Fiber splice module
(48 fiber capacity module shown)



Splice deck with
splice chip (black)



Splice wheel with
splice chip (black)

Ordering Information

Description	Panel Height	Catalog Number
Splice panel for splice wheel, black; (Also accepts splice wheel)		
48 fiber capacity	3.5" (8.89 cm)	FL2-48SPNL2-B
96 fiber capacity	7" (17.78 cm)	FL2-96SPNL2-B
144 fiber capacity	8.75" (22.23 cm)	FL2-144SPNL2-B
Splice wheel with splice chip		
Heat shrink fusion		FST-DRS12-HS
Mechanical		FST-DRS12-MT
Nortel		FST-DRS24-NT
Splice panel for splice deck for existing installations, black; (Also accepts splice wheel)		
48 fiber capacity	3.5" (8.89 cm)	FL2-48SPNL-B
96 fiber capacity	7" (17.78 cm)	FL2-96SPNL-B
144 fiber capacity	8.75" (22.23 cm)	FL2-144SPNL-B
Cable clamp kit *(kit of 1)*		
Outer diameter 0.2" to 0.8"		FL2-ACC007
Outer diameter 0.7" to 1.0"		FL2-ACC021

Mounting kits sold separately

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Broadcast and Entertainment Products

Fiber Connectivity Solutions

FL2000 System

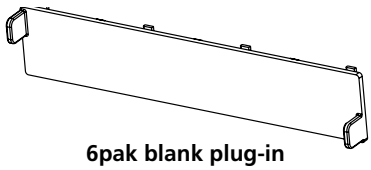
6pak Connector Plug-Ins

Features

- Completely interchangeable between FL2000 panel and wall box products
- Can be ordered with all standard types of simplex and duplex single and multimode adapters and connectors
- Feature ADC's patented removable angled retainers which provide superior fiber management
- No tools required to install into FL2000 boxes or panels
- Can be ordered with adapters only, or for quick and easy installation, with preterminated 3 meter (9.84') or 5 meter (16.4') pigtails

6pak plug-in (shown with singlemode duplex adapters)

6pak plug-in (shown with multimode duplex adapters)



6pak blank plug-in

6pak plug-in (shown with singlemode simplex adapters)

6pak plug-in (shown with multimode simplex adapters)

Ordering Information

Description	Catalog Number
Multimode	
SC	FL2-6PMMSC
SC (aqua[1])	FL2-6PMMSC-A
ST	FL2-6PMMST
SC (duplex)	FL2-6PMMDSC
SC (aqua[1], duplex)	FL2-6PMMDSC-A
LC	FL2-6PMMLC
LC (aqua[1])	FL2-6PMMLC-A
Singlemode	
SC	FL2-6PSMSC
ST	FL2-6PSMST
SC (duplex)	FL2-6PSMDSC
LC	FL2-6PSMLC
6pak blank plug-in	FL2-6PBLNK

[1] ADC recommends the use of aqua colored adapters with laser optimized multimode fiber applications for 10 Gigabit circuit identification.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

FL2000 System

6pak Connector Plug-Ins With Adapters and Pigtails

Features

- Available with preterminated 5 meter (16.4') pigtails
- Pigtails consist of a single outer jacket containing six color-coded 900 µm fibers
- One end of pigtail terminated to chosen connector style and installed into the 6pak plug-in adapters
- ADC recommends specific breakouts for panel and wall mount box products
- Saves installation time

FL2000 6pak plug-in
with SC adapters and pigtails

Ordering Information

Description	Catalog Number
6paks – with 62.5/125 µm Multimode Pigtails	
Multimode LC (beige), with 5 meter 12 fiber stranded pigtails	FL2-6P6BC605R
Multimode SC (beige), with 5 meter 6 fiber stranded pigtails	FL2-6P9BC605R
Multimode SC duplex (beige), with 5 meter 6 fiber stranded pigtails	FL2-6PDBC605R
Multimode ST, with 5 meter 6 fiber stranded pigtails	FL2-6P5BC605R
6paks – with 50/125 µm Multimode Pigtails	
Multimode LC (beige), with 5 meter 12 fiber stranded pigtails	FL2-6P6CC605R
Multimode SC (beige), with 5 meter 6 fiber stranded pigtails	FL2-6P9CC605R
Multimode SC duplex (beige), with 5 meter 6 fiber stranded pigtails	FL2-6PDCC605R
Multimode ST, with 5 meter 6 fiber stranded pigtails	FL2-6P5CC605R
10G 6paks – with 50/125 µm Laser Optimized Multimode Pigtails[1]	
10G Multimode LC (aqua), with 5 meter 12 fiber stranded pigtails	FL2-6P6JC605R
10G Multimode SC (aqua), with 5 meter 6 fiber stranded pigtails	FL2-6P9JC605R
10G Multimode SC duplex (aqua), with 5 meter 6 fiber stranded pigtails	FL2-6PDJC605R
6paks - Singlemode Pigtails and adapters	
Singlemode LC (blue), with 5 meter 12 fiber stranded pigtails	FL2-6P8SC605R
Singlemode SC (blue), with 5 meter 6 fiber stranded pigtails	FL2-6P7SC605R
Singlemode ST, with 5 meter 6 fiber stranded pigtails	FL2-6P4SC605R

[1] 10G 6paks utilize 50/125 µm laser optimized multimode to 300 meters or OM3 rated glass and aqua colored adapters.

Please note: Duplex SC adapters do not double the fiber count per adapter pack.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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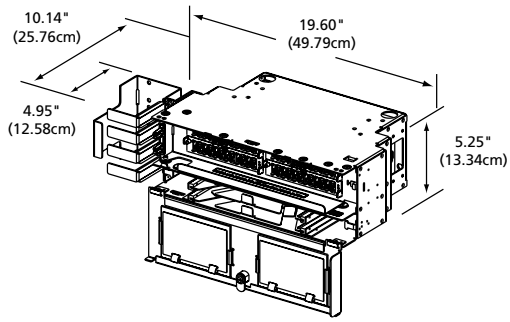
Fiber Connectivity Solutions

FL2000 System

Preconfigured Termination/Splice Panels, Black

Features

- FL2000 panels can also be shipped with 6paks and/or pigtails pre-installed at the factory.
- Reduce installation time
- Simplify ordering process
- Use this configuration guide to determine the catalog number right for your application.



Catalog Number

FL2 - C ___ 0 ___ ___ ___ - ___ ___ ___ ___

Nominal Capacity and Panel Height

A	12 position 3.5" (8.89 cm) (2 RU)
B	24 position 5.25" (13.34 cm) (3 RU)
D	48 position 8.75" (22.23 cm) (5 RU)
E	72 position 14.00" (35.56 cm) (8 RU)
F	96 position 17.50" (44.45 cm) (10 RU)

Connector Style

Multimode	
9	SC
D	Duplex SC
5	ST®
6	LC[1]
Singlemode	
7	Ultra PCSC
E	Duplex SC
4	Ultra PCST
8	LC[1]

Number of Ports Loaded

Pigtail or Adapter Type

A	Adapters only
Multimode	
C	SC
P	Duplex SC
J	ST®
Singlemode	
P	6-fiber softwall bundle
H	6-fiber Maxistrip
R	12-fiber Ribbon[4]
K	12-fiber softwall bundle[3]
Y	12-fiber Maxi-Strip[4]

Splice Type

0	None or N/A
M	Mechanical (wheel)
W	Heat Shrink Fusion (wheel)

Splice Type[3]

M	Mechanical (wheel)
N	Nortel (wheel)

Number of Splice Decks

Latch Type

0	Latch
1	Hole Plug
2	Screwdriver
5	K1 Lock
6	K2 Lock

Number of Cable Clamps

0	1 clamp (standard)
2	2 clamps

Mounting Style [5]

A	19" (48.26 cm) standard (19.6" [49.78 cm] overall)
B	19" (48.26 cm) maximum (19" [48.26 cm] overall)
C	19" (48.26 cm) flush mount

[1] LC connectors and adapters double the capacity of the panel by terminating two fibers at each adapter.

[2] ADC will automatically configure FL2000 panels with laser optimized cable to use aqua colored SC or LC adapters to indicate 10 Gigabit applications. To order adapter only panels with aqua colored adapters, purchase the empty chassis and add 6paks separately.

[3] For use with LC.

[4] Singlemode choices for use with LC adapters, with multimode options ADC will automatically choose best suited fiber count.

[5] Mounting kit shipped unattached if other than standard mounting style.

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Broadcast and Entertainment Products

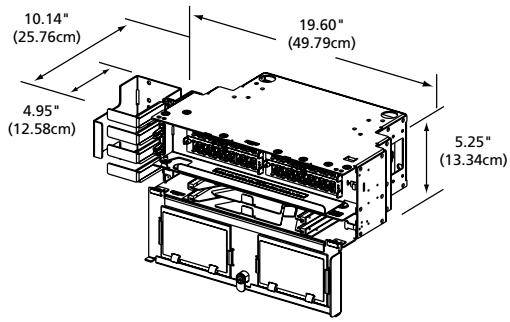
Fiber Connectivity Solutions

FL2000 System

Custom Preconfigured Termination/Splice Panels with Two Adapter Styles, Black

Features

- FL2000 panels can now be loaded with a combination of singlemode and multimode and/or pigtails pre-installed at the factory.
- Panel available either horizontally or vertically loaded with like adapters with fully loaded configurations
- Reduces installation time
- Simplify ordering process
- Use this configuration to determine the catalog number right for you.



Splice tray loading always follows loading style (vertical or horizontal) i.e. the first two 6 packs' pigtails will be routed to the top splice tray, the second two 6 packs' pigtails will be routed to the 2nd down splice tray.

Catalog Number

FL2- ____ ____ 0 __ / ___ - ____ ____ ____ ____

Panel Type

C	Vertically Loaded (left/right)
E	Horizontally Loaded (top/bottom)

Nominal Capacity / Panel Height

A	12-position	3.5" (2RU)
B	24-position	5.25" (3RU)
D	48-position	8.75" (5RU
E	72-position	14" (8RU)
F	96-position	17.50" (10RU)

1st, 2nd Connector Style

Multimode Connectors	
9	SC
D	SC Duplex
5	ST®
6	LC
Singlemode Connectors	
7	SC
E	SC Duplex
4	ST®
8	LC

1st, 2nd Pigtail or Adapter Type

A	Adapters Only
P	6-Fiber Softwall bundle (Singlemode or Multimode 62.5/125)
K	12-Fiber Softwall bundle (Singlemode or Multimode 62.5/125)
C	Softwall bundle multimode 50/125
J	Softwall bundle multimode 50/125 laser optimized to 300m

No. of Cable Clamps

0	1 Clamp (Standard)
2	2 Clamps

Latch Type

0	Standard
1	Hole Plug
2	Screwdriver
5	K1 Lock
6	K2 Lock

Mounting Style

A	19" Standard (19.6" Overall)
B	19" Maximum (19.0" Overall)
C	19" Flush Mount

No. of Spice Decks

0-8	Enter number of Splice Decks Needed

Splice Type

0	None or N/A
12 splices max per deck/wheel	
W	HS Fusion (Wheel)
2	Heat Shrink Fusion (Deck)
3	Mechanical (Deck)
24 splices max per wheel (Use with LC adapters)	
M	Mechanical (Wheel)
N	Nortel (Wheel)

Horizontally loaded panel

1st conn style	1st adptr style
1st conn style	1st adptr style
2nd conn style	2nd adptr style
2nd conn style	2nd adptr style

Vertically loaded panel

1st conn style	2nd adptr style
1st conn style	2nd adptr style
1st conn style	2nd adptr style
1st conn style	2nd adptr style

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Broadcast and Entertainment Products

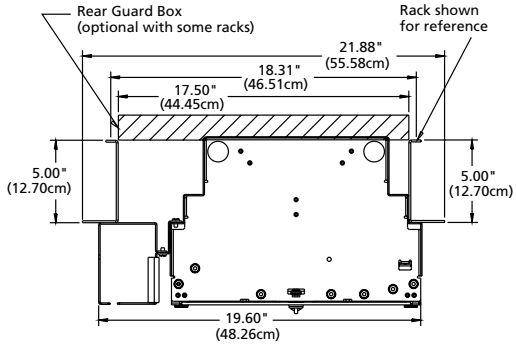
Fiber Connectivity Solutions

FL2000 System

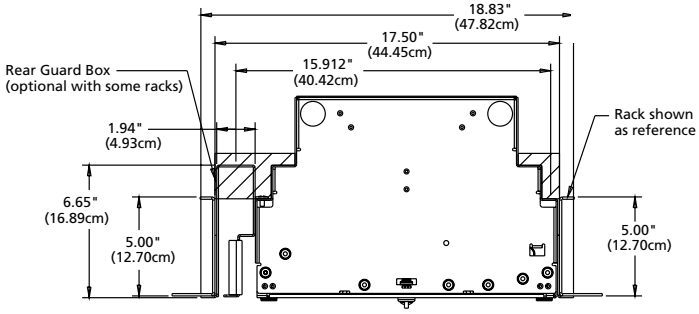
Mounting Options—19" (48.26 cm) Rack Mounting

Features

- Panels typically shipped from factory equipped for this mounting
- Panels shipped with
  - Left-side "L" bracket
  - Left-side 2.5" (6.32 cm) wide vertical cable guide (VCG)



Standard Mount (as shipped)



Flush Mount

Ordering Information

Description	Panel Height	Catalog Number
Flush mount Allows 1", 2" or 4" (2.54, 5.08 or 10.16 cm) recess mounting Kit includes: new vertical cable guide and mounting flanges	1.75" (4.45 cm)	FL2-FLMT0175-B
	3.5" (8.89 cm)	FL2-FLMT0350-B
	5.25" (13.34 cm)	FL2-FLMT0525-B
	7" (17.78 cm)	FL2-FLMT0700-B
	8.75" (22.23 cm)	FL2-FLMT0875-B
	10.5" (26.67 cm)	FL2-FLMT1050-B

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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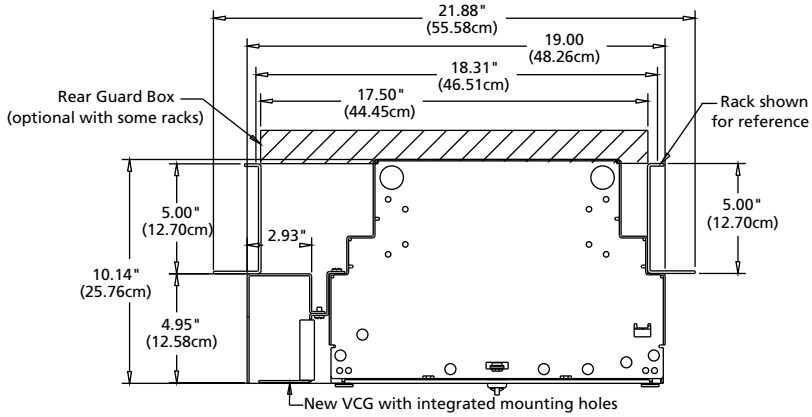
Fiber Connectivity Solutions

FL2000 System

Mounting Options—19" (48.26 cm) Rack Maximum Mounting



Ordering Information

Description	Panel Height	Catalog Number
19" maximum, black Allows entire panel to be contained within frame footprint Kit includes: new vertical cable guide with integrated mounting holes	1.75" (4.45cm)	FL2-19MAX0175-B
	3.5" (8.89cm)	FL2-19MAX0350-B
	5.25" (13.34cm)	FL2-19MAX0525-B
	7" (17.78cm)	FL2-19MAX0700-B
	8.75" (22.23cm)	FL2-19MAX0875-B
	10.5" (26.67cm)	FL2-19MAX1050-B
	14" (35.56cm)	FL2-19MAX1400-B
	17.5" (43.18cm)	FL2-19MAX1750-B

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

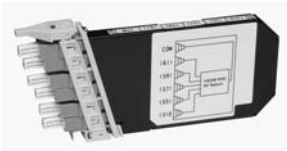
Value-Added Module (VAM) System – Introduction

ADC's value-added module (VAM) system adds flexibility and functionality to the optical transport system by enabling service providers to easily incorporate optical components into the network. This versatile platform lays the foundation for the optical network of the future.

The VAM system consists of a variety of chassis and optical components that fit into all existing ADC optical distribution frames and various other mounting environments.

Modules may include:

- Splitters
- Monitors
- Wavelength division multiplexers (WDMs)
- Coarse wavelength division multiplexers (CWDMs)
- Dense wavelength division multiplexers (DWDMs)



MicroVAM
Used with FMT, NGF and NG3 MicroVAM Chassis Propatch Fiber

WideVAM
Used with FCM Wide VAM chassis

HD OMX VAM
Used with OMX600 high-density VAM chassis

LGX® Compatible Vam
Used with ADC's LGX compatible VAM
Chassis and any 7" LGX VAM chassis

Standard Vam
Used with ADC's FCM and FL2000 industry
standard optical distribution frames with standard VAM chassis

Features and Benefits

VAM Modules for Complete Optical Transport System Requirements:

Signal Splitting
Distribute signals to multiple subscribers

Monitor testing
Troubleshoot networks without forcing disruption of service

Wavelength Division Multiplexing
Increase capacity without deploying additional fiber

CWDM Applications
Increase bandwidth by transmitting multiple wavelengths simultaneously

DWDM Applications
Further increase transmission bandwidth and capacity using closely spaced wavelengths in the ITU grid

ADC's VAM Modules Feature:

Enclosed plug-in modules
Optical components are protected from physical and environmental damage

Angled retainers
Maintains minimum bend radius of fiber patch cords

Pluggable Modules
Modules can be added or removed from the chassis interfering with existing terminated patch cords

Flexible platform
Modules can be created for new applications quickly and easily to meet customer requirements

Custom configurations
Custom splitter configurations are available upon request. Please contact ADC Technical Assistance Center.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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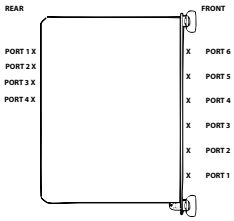
Fiber Connectivity Solutions

Value-Added Module (VAM) System – Monitor Module

Monitor Module Types

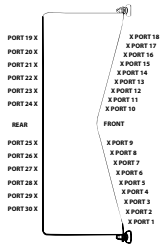


Standard VMM

Used with 8" FCM, FL2000 and industry-standard optical distribution frames Standard VAM chassis

Available Ports:

- 6 Front (12 LC)*
- 4 Rear (8 LC)

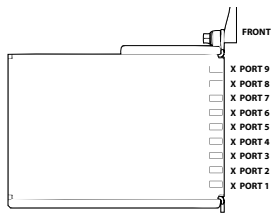


WideVAM® VMMW

Used with 8" FCM and industry-standard optical distribution frames WideVAM chassis

Available Ports:

- 18 Front (36 LC)*
- 12 Rear (24 LC)

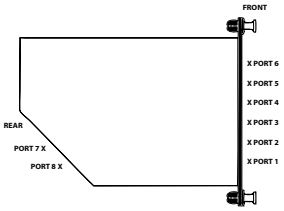


OMX600® High-Density MXM-M

Used with OMX600 high-density VAM chassis

Available Ports:

- 9 Front (10 LC)
- 0 Rear

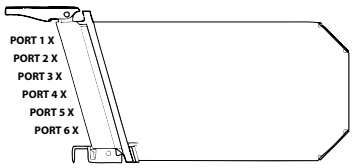


LGX® Compatible VLM-M

Used with ADC LGX compatible VAM chassis and is compatible with any 7"- high LGX VAM chassis

Available Ports:

- 6 Front (12 LC)
- 3 Rear (0 LC)



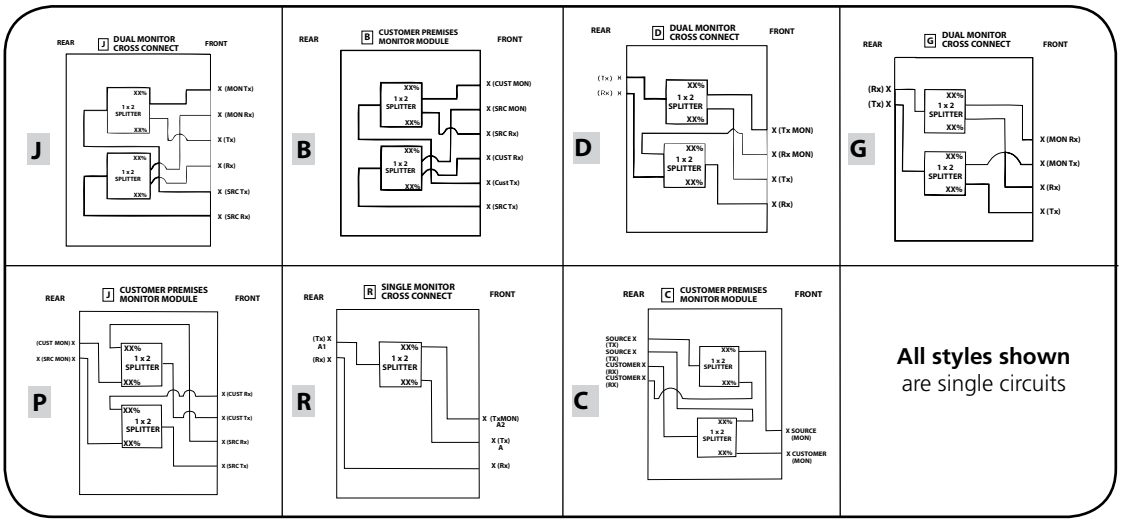
MicroVAM FMT-M

Used with FMT NGF and NG3® MicroVAM chassis

Available Ports:

- 6 Front (8 LC)
- 3 Rear (NGF Only) (0 LC)

Monitor Module Options



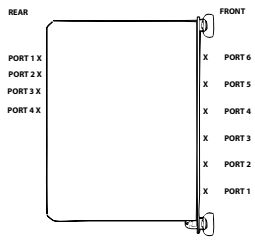
All styles shown are single circuits

Other configurations and split ratios are available upon request. Please contact ADC Technical Assistance Center. For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

Value-Added Module (VAM) System – Splitter Module

Splitter Module Types

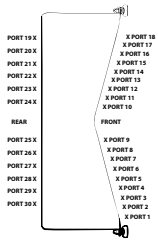


Standard VSM

Used with 8" FCM, FL2000 and industry-standard optical distribution frames Standard VAM chassis

Available Ports:

- 6 Front (12 LC)*
- 4 Rear (8 LC)

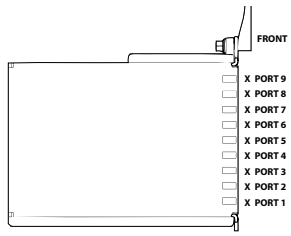


WideVAM VSMW-

Used with 8" FCM and industry-standard WideVAM® chassis

Available Ports:

- 18 Front (36 LC)*
- 12 Rear (24 LC)

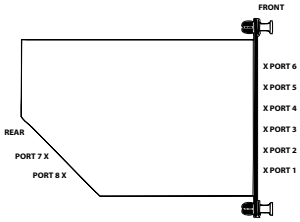


OMX600® High-Density MXM

Used with OMX600 high-density VAM chassis

Available Ports:

- 9 Front (10 LC)
- 0 Rear

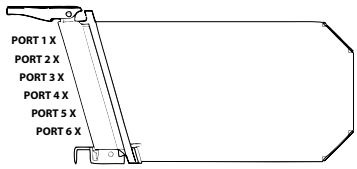


LGX® Compatible VLM

Used with ADC LGX compatible VAM chassis and is compatible with any 7" - high LGX VAM chassis

Available Ports:

- 6 Front (12 LC)
- 3 Rear (0 LC)



MicroVAM FMT-MS

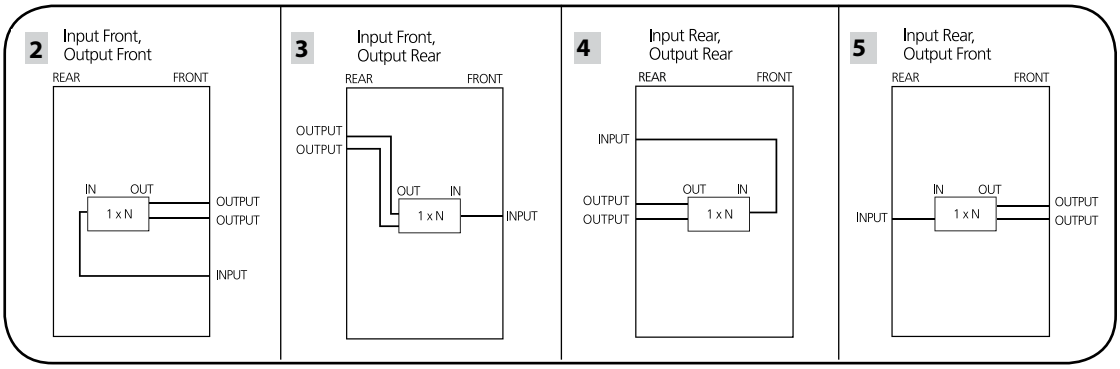
Used with FMT, NGF and NG3®

MicroVAM chassis

Available Ports:

- 6 Front (8 LC)
- 3 Rear (NGF Only) (0 LC)

Splitter Module Options



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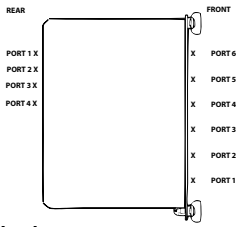
Fiber Connectivity Solutions

Value-Added Module (VAM) System – WDM Module

WDM Module Types

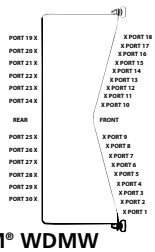


Standard WDM

Used with 8" FCM, FL2000 and industry-standard optical distribution frames Standard VAM chassis

Available Ports:

- 6 Front (12 LC)
- 4 Rear (8 LC)

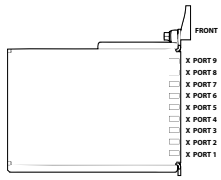


WideVAM® WDMW

Used with 8"FCM and industry-standard optical distribution frames WideVAM chassis

Available Ports:

- 18 Front (36 LC)
- 12 Rear (24 LC)

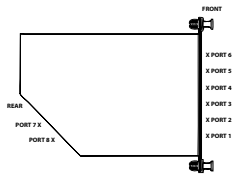


OMX600® High-Density MXM-W

Used with OMX600 high-density VAM chassis

Available Ports:

- 9 Front Only (10 LC)
- 0 Rear

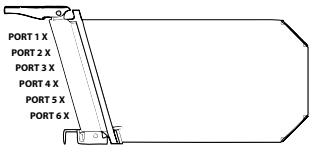


LGX® Compatible VLM-W

Used with ADC LSX compatible VAM chassis and is compatible with any 7" - high LGX VAM chassis

Available Ports:

- 6 Front (12 LC)
- 3 Rear (0 LC)



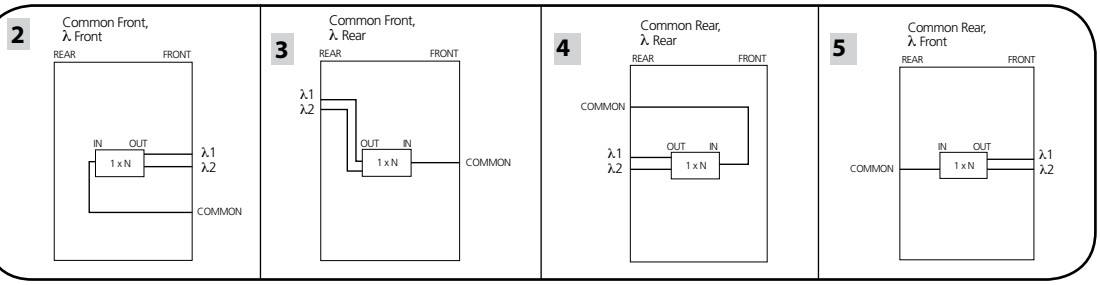
MicroVAM FMT-MW

Used with FMT, NGF and NG3® MicroVAM chassis

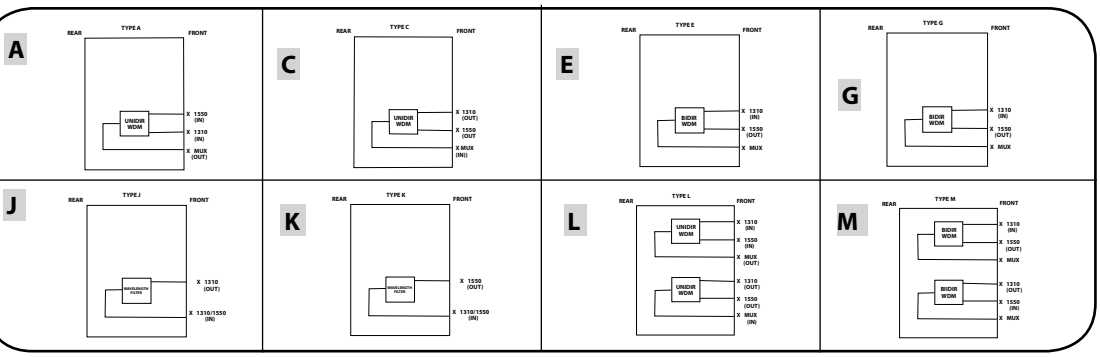
Available Ports:

- 6 Front (8 LC)
- 3 Rear (NGF only) (0 LC)

WDM Module Options



WDM Component Types



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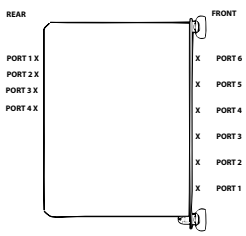
Fiber Connectivity Solutions

Value-Added Module (VAM) System – CWDM Module

CWDM Module Types

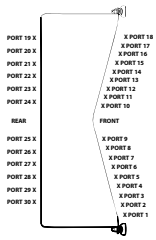


Standard VSM

Used with 8" FCM, FL2000 and industry-standard optical distribution frames Standard VAM chassis

Available Ports:

- 6 Front (12 LC)
- 4 Rear (8 LC)

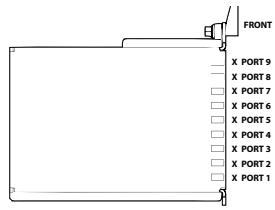


WideVAM® VMW

Used with ADC 8" FCM and industry-standard optical distribution frames WideVAM chassis

Available Ports:

- 18 Front (36 LC)
- 12 Rear (24 LC)

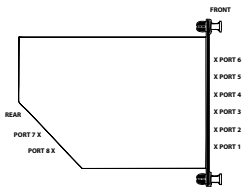


OMX600® High-Density MXM

Used with OMX600 high-density VAM chassis

Available Ports:

- 9 Front (10 LC)
- 0 Rear

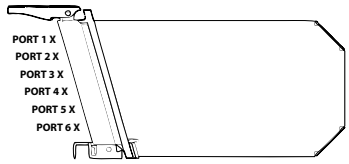


LGX® Compatible VLM

Used with LGX compatible VAM chassis and is compatible with any 7" - high LGX VAM chassis

Available Ports:

- 6 Front (12 LC)
- 3 Rear (0 LC)



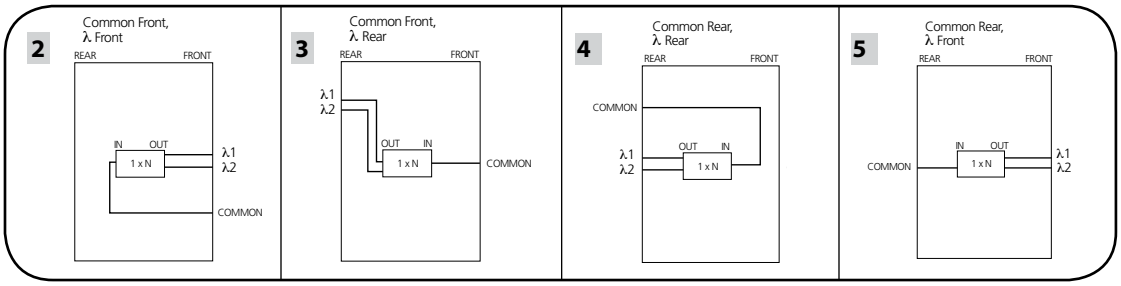
MicroVAM FMT

Used with FMT and NG3® MicroVAM chassis

Available Ports:

- 6 Front (8 LC)
- 3 rear (NGF only) (0 LC)

CWDM Module Options



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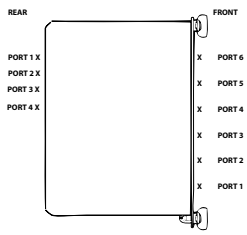
Fiber Connectivity Solutions

Value-Added Module (VAM) System – DWDM Module

DWDM Module Types

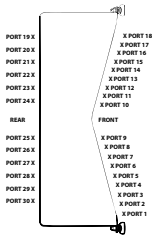


Standard VSM

Used with 8" FCM, FL2000 and industry-standard optical distribution frames Standard VAM chassis

Available Ports:

- 6 Front (12 LC)
- 4 Rear (8 LC)

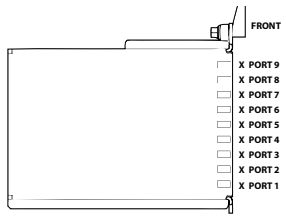


WideVAM® VMW

Used with ADC 8" FCM and industry-standard optical distribution frames WideVAM chassis

Available Ports:

- 18 Front (36 LC)
- 12 Rear (24 LC)

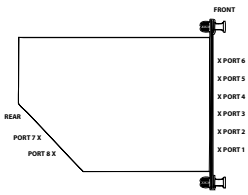


OMX600® High-Density MXM

Used with OMX600 high-density VAM chassis

Available Ports:

- 9 Front (10 LC)
- 0 Rear

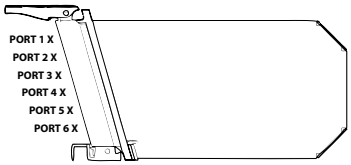


LGX® Compatible VLM

Used with LGX compatible VAM chassis and is compatible with any 7" - high LGX VAM chassis

Available Ports:

- 6 Front (12 LC)
- 3 Rear (0 LC)



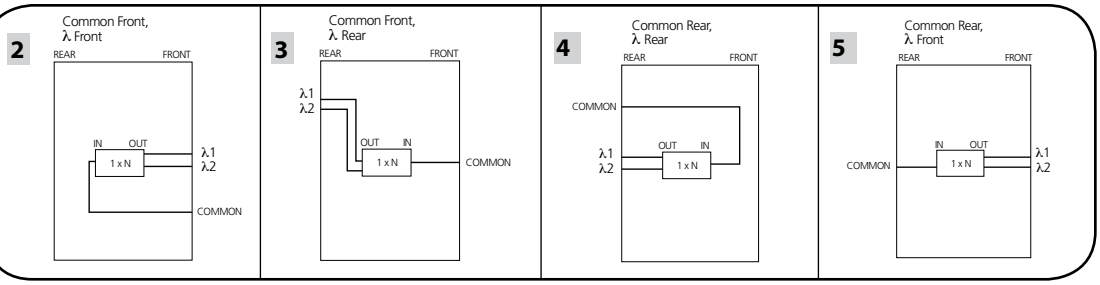
MicroVAM FMT

Used with FMT and NG3® MicroVAM chassis

Available Ports:

- 6 Front (8 LC)
- 3 rear (NGF only) (0 LC)

DWDM Module Options



Other configurations are available upon request. Please contact ADC Technical Assistance Center.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

Value-Added Module (VAM) System – Splitter Specifications

Singlemode Wideband Optical Splitter

Splitter Number	Splitter Type	Splitter Ratio	Maximum Insertion Loss*	Typical Insertion Loss*
2000	1x2	50/50	3.8/3.8	3.1/3.1
2100	1x2	55/45	3.2/4.1	2.7/3.6
2200	1x2	60/40	2.7/4.7	2.3/4.1
2300	1x2	65/35	2.3/5.3	2.0/4.7
2350	1x2	66.6./33.3	2.2/5.5	1.9/5.0
2400	1x2	70/30	2.0/6.0	1.7/5.4
2500	1x2	75/25	1.6/6.8	1.4/6.2
2600	1x2	80/20	1.3/7.8	1.1/7.1
2700	1x2	85/15	1.0/9.2	.8/8.4
2800	1x2	90/10	.8/11.2	.6/10.2
2900	1x2	95/5	.5/14.4	.4/13.2
2950	1x2	99/1	0.3/22.5	NA/NA
2030	2x2	50/50	3.8/3.8	3.1/3.1
3900	1x3	33/33/33	6.3/6.3/6.3	5.0/5.0/5.0
4900	1x4	25/25/25/25	7.5/7.5/7.5/7.5	6.3/6.3/6.3/6.3
5300	1x5	20/20/20/20/20	9.2/9.2/9.2/9.2/9.2	7.3/7.3/7.3/7.3/7.3
6000	1x6	16.6/16.6/… /16.6	10.3/10.3/…/10.3	8.1/8.1/8.1/…/8.1
7000	1x7	14.3/14.3/…/14.3	11.3/11.3/…/11.3	8.9/8.9/…/8.9
8000	1x8	12.5/12.5/…/12.5	11.9/11.9/11.9/11.9	9.9/9.9/9.9/9.9 9.9/9.9/…/9.9

*** Does not include connector losses.**

Maximum Insertion Loss
Maximum insertion loss is the upper limit of insertion loss for the coupler and applies over the entire wavelength range specified in the bandpass.

Typical Insertion Loss
Typical insertion loss is the expected insertion loss value for the coupler measured at the specified center wavelength (i.e. 1310 nm and/or 1550 nm).

OPTICAL

Bandpass

Wavelength 1:	1260/1360 nm
Wavelength 2:	1430/1580 nm
Directivity:	55 dB minimum
Reflectance:	< -55 dB

MECHANICAL AND ENVIRONMENTAL Designed to meet the requirements of GR-1209-CORE and GR-1221-CORE

Other splitter configurations are available upon request. Please contact ADC Technical Assistance Center.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Fiber Connectivity Solutions

Value-Added Module (VAM) System – Splitter Specifications

Multimode Optical Splitter+

Splitter Number	Splitter Type	Splitter Ratio	Maximum Insertion Loss*	Typical Insertion Loss*
2000	1x2	50/50	4.0/4.0	3.5/3.5
2200	1x2	60/40	3.1/5.1	2.7/4.5
2400	1x2	70/30	2.2/6.2	2.0/4.7
2600	1x2	80/20	1.6/8.2	1.4/7.6
2800	1x2	90/10	1.1/12.0	0.9/10.9
2900	1x2	95/5	0.9/17.5	0.7/14.4
4900	1x4	25/25/25/25	8.1/8.1/8.1/8.1	7.1/7.1/7.1/7.1
8000	1x8	12.5/12.5/…/12.5	12.1/12.1/…/12.1	10.6/10.6/…/10.6

+Specifications reflect modally insensitive multimedia optical splitters.
***Does not include connector losses.**

Maximum Insertion Loss
Maximum insertion loss is the upper limit of insertion loss for the coupler and applies over the entire wavelength range specified in the bandpass.

Typical Insertion Loss
Typical insertion loss is the expected insertion loss value for the coupler measured at the specified center wavelength (i.e. 850 µm and/or 1800 µm).

Modally Insensitive Multimode Optical Splitter

OPTICAL

Bandpass:	800-1600 nm
Directivity:	40 dB minimum

Other splitter configurations are available upon request. Please contact ADC Technical Assistance Center.

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Fiber Connectivity Solutions

Value-Added Module (VAM) System – WDM Specifications

Singlemode WDM

OPTICAL

Bandpass:	(see table below)
Insertion Loss:	(see table below)
Reflectance:	< -55 dB

ISOLATION

Near End:	55 dB
Far End:	(see table below)

MECHANICAL/ ENVIRONMENTAL Designed to meet the mechanical and environmental requirements of GR-1209-CORE and GR-1221-CORE.

1310/1550 nm	Bandpass (nm)	Maximum Insertion Loss * (dB)	Minimum Isolation (dB)
Multiplexer/Demultiplexer:	1310 ± 20 nm and 1550 ± 20 nm	0.3	15
High Isolation Demultiplexer:	1310 ± 20 nm and 1550 ± 20 nm	0.6	30
Very High Isolation Demultiplexer:	1310 ± 20 nm and 1550 ± 20 nm	0.9	45
Wavelength Filters:	1310 ± 20 nm and 1550 ± 20 nm	0.3	15

***Maximum Insertion Loss does not include connector loss.**

CWDM Specifications

PARAMETERS	**4 CHANNEL**	**8 CHANNEL**
Operating Temperature:	-40° to +85° C	-40° to +85° C
Channel Spacing:	20 nm	20 nm
Maximum Optical Power:	250 mW	250 mW
MUX and DEMUX without connectors (without 1310 upgrade port)		
CWDM Channel Passband:	±6.5 nm	±6.5 nm
Insertion Loss:	<2.0 dB	<2.5 dB
Adjacent Channel Isolation:	>30 dB	>30 dB
Non-Adjacent Channel Isolation:	>40 dB	>40 dB
Directivity:	>50 dB	>50 dB
Return Loss:	>45 dB	>45 dB
Polarization Dependent Loss:	<0.2 dB	<0.2 dB
MUX and DEMUX without connectors (with 1310 upgrade port)		
CWDM Channel Passband:	±6.5 nm	±6.5 nm
1310 Upgrade Channel Passband:	1260-1360 nm	1260-1360 nm
Insertion Loss CWDM Ports:	<2.2 dB	<2.9 dB
Insertion Loss 1310 Upgrade Port:	<2.2 dB	<2.9 dB
CWDM Adjacent Channel Isolation:	>30 dB	>30 dB
CWDM Non-Adjacent Channel Isolation:	>40 dB	>40 dB
1310 Upgrade Adjacent Channel Isolation:	>40 dB	>40 dB
1310 Upgrade Non-Adjacent Channel Isolation:	>40 dB	>40 dB
Directivity:	>50 dB	>50 dB
Return Loss:	>45 dB	>45 dB
Polarization Dependent Loss:	<0.2 dB	<0.25 dB

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

Fiber Connectivity Solutions

Value-Added Module (VAM) System – DWDM Specifications

PARAMETERS	4 CHANNEL	4 CHANNEL
Operating Temperature:	0° to +75° C	0° to +75° C
Channel Spacing:	100 Ghz	200 Ghz
Maximum Optical Power:	300 mW	300 mW
MUX and DEMUX without connectors		
Channel Passband:	±12.5 Ghz	±0.25 Ghz
Insertion Loss:**	<2.6 dB	<2.6 dB
Adjacent Channel Isolation:	>25 dB	>25 dB
Non-Adjacent Channel Isolation:	>45 dB	>45 dB
Directivity:	>50 dB	>50 dB
Return Loss:	>45 dB	>45 dB
Polarization Dependent Loss:	<0.2 dB	<0.2 dB
Polarization Mode Dispersion:	<0.2 ps	<0.2 ps

PARAMETERS	8 CHANNEL	8 CHANNEL
Operating Temperature:	0° to +75° C	0° to +75° C
Channel Spacing:	100 Ghz	200 Ghz
Maximum Optical Power:	300 mW	300 mW
MUX and DEMUX without connectors		
Channel Passband:	±12.5 Ghz	±0.25 Ghz
Insertion Loss:**	<2.0 dB	±6.5 nm
Adjacent Channel Isolation:	>25 dB	>25 dB
Non-Adjacent Channel Isolation:	>45 dB	>45 dB
Directivity:	>50 dB	>50 dB
Return Loss:	>45 dB	>45 dB
Polarization Dependent Loss:	<0.2 dB	<0.2 dB
Polarization Mode Dispersion:	<0.2 ps	<0.2 ps

PARAMETERS	16 CHANNEL	16 CHANNEL
Operating Temperature:	0° to +75° C	0° to +75° C
Channel Spacing:	100 Ghz	200 Ghz
Maximum Optical Power:	300 mW	300 mW
MUX and DEMUX without connectors		
Channel Passband:	±12.5 Ghz	±0.25 Ghz
Insertion Loss:**	±6.5 nm	
Adjacent Channel Isolation:	>25 dB	>25 dB
Non-Adjacent Channel Isolation:	>45 dB	>45 dB
Directivity:	>50 dB	>50 dB
Return Loss:	>45 dB	>45 dB
Polarization Dependent Loss:	<0.2 dB	<0.2 dB
Polarization Mode Dispersion:	<0.2 ps	<0.2 ps

*Specifications subject to change
**Specification do not include connector loss

For additional information on ADC's Fiber Solutions view our catalog under Resources at www.adc.com/broadcast.

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Next Generation Frame (NGF) and Plug-and-Play Solutions

Next Generation Frame Solutions

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NGF and Plug-and-Play Solutions

Next Generation Frame (NGF) Introduction

Many organizations within the broadcast and entertainment industry need a fast, efficient, secure and reliable way to move information around. This increasing need for more bandwidth is urging many broadcasters to shift away from copper and embrace the efficiency of fiber optic cable feeds. With that, broadcasters need fiber solutions that are scalable as bandwidth requirements continue to grow. ADC's Next Generation Optical Distribution Frame (NGF) solution can do just that. This high density, robust solution serves as your broadcast studio's main fiber cross-connect. An industry tested design, this solution is essential to the modern broadcast facility, no standard fiber offering can compare.

The NGF solution is comprised of the following components:

Frames
ADC developed its innovative Next Generation Frame (NGF) for high-fiber count applications. At 2304 terminations in a single frame, its unique, user-friendly design and superior cable management provide enterprise customers an optimum solution to handle applications with high fiber counts such as data centers.

ADC's NGF product line is designed to fit a variety of termination, splice, and storage applications. This frame is designed with an emphasis on superior cable management and ease of use, including features such as ample trough space for cable and jumpers, easy access to connectors, and storage for jumpers. The frame sections are shipped from the factory fully equipped with all cable management hardware including a built-in jumper storage panel.

Fiber Termination Blocks (FTBs)
Fiber Termination Blocks (FTBs) are available with SC adapters in block configurations of 144-positions, and with LC adapters in 144- and 192-positions. FTBs utilize sliding adapter packs to gain easy access to both the front and rear connectors. FTBs can be ordered with adapters only, with factory terminated IFC stubs, or as Plug-and-Play cassettes (see pages 6.19-6.21).

Sliding Adapter Packs
Sliding adapter packs house groups of fiber optic adapters and are mounted in fiber termination blocks to provide easy access to connectors. Sliding adapter packs are available with SC and LC adapters. The adapters come in packs of four and six depending on the adapter type and the desired termination density.

Features and Benefits

Ample Trough Space

- Reduces jumper pile-up, congestion and maintenance
  – Easy removal and tracing of jumpers
  – Minimizes risk of damage to fiber

Built-in Jumper Storage Panel

- Minimizes number of required jumper lengths
- Maintains fiber bend radius
- Simplifies frame installation
  – Reduces the number of jumper lengths that have to be inventoried
  – Minimizes risk or damage to fiber
- Enclosed system ensures easy cable access without fiber cross-over points

Sliding Adapter Packs

- Promotes high density
- Provides easy access to connectors
  – Saves valuable floor space
  – Reduced operation and maintenance time

Intelligent Cable Routing System

- No fiber cross-over points
- Multiple vertical troughways
  – Easier removal and tracing of jumpers

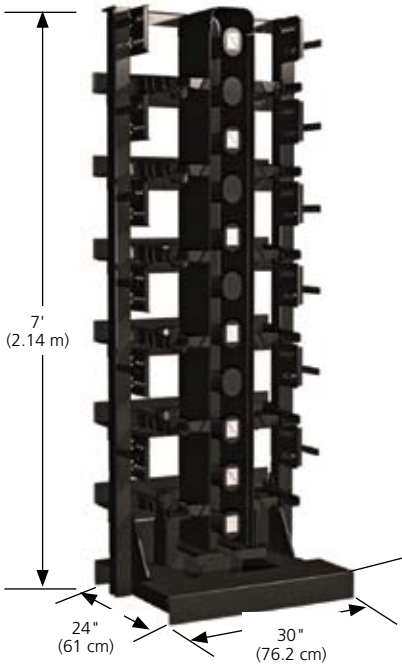
Bend Radius Protection at Every Turn

- Ensure network performance and reliability

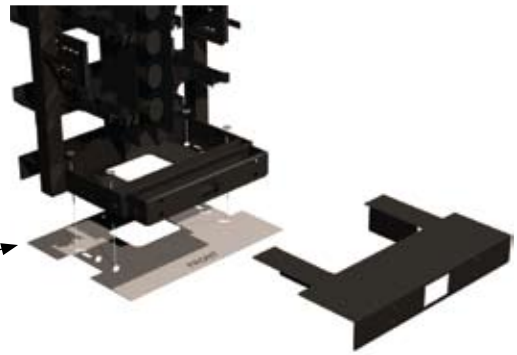
NGF and Plug-and-Play Solutions

Fiber Main Distribution Frame (FMDF)

The Fiber Main Distribution Frame (FMDF) is the cornerstone of the NGF product line. This innovative frame has six 5-inch horizontal troughs for a total of 30 inches of horizontal trough space. This abundant trough space minimizes fiber pile up and congestion leading to easier moves, adds and changes. The frame has twelve Fiber Termination Block (FTB) mounting positions equally divided between vertical columns on the left and right sides of the frame as shown in the figure below. The frame is available in 30-inch wide version and provides additional vertical trough space for the highest termination density applications. The built-in jumper storage panel will store up to 3.5 meters (12 feet) of jumper slack.



FMDF Frame
NGFB-MDF7A144-30



Isolation Pad shown with FMDF
NGF-ACCISOP30X24

Ordering Information

Description	Dimensions	Catalog Number
Fiber Main Distribution Frame (FMDF); Accommodates 12 Fiber Termination Blocks (FTBs) or 12 Plug-and-Play Cassette Blocks*		
Short Bracket 30" Frame; For use with SC 144-position FTBs, or LC 192-position FTBs, LC 144- and 192-position Plug-and-Play Cassette Blocks[1]	7' x 30" x 24" (2.14 m x 76.2 cm x 61 cm)	NGFB-MDF7A144-30
Long Bracket 30" Frame; For use with LC 144-position FTBs		NGFB-MDF7A100-30

Each frame section includes heavy duty floor anchor bolts for concrete floor applications.
* ADC recommends the use of 1.7 mm/1.6 mm jumpers when deploying 192-position FTBs.

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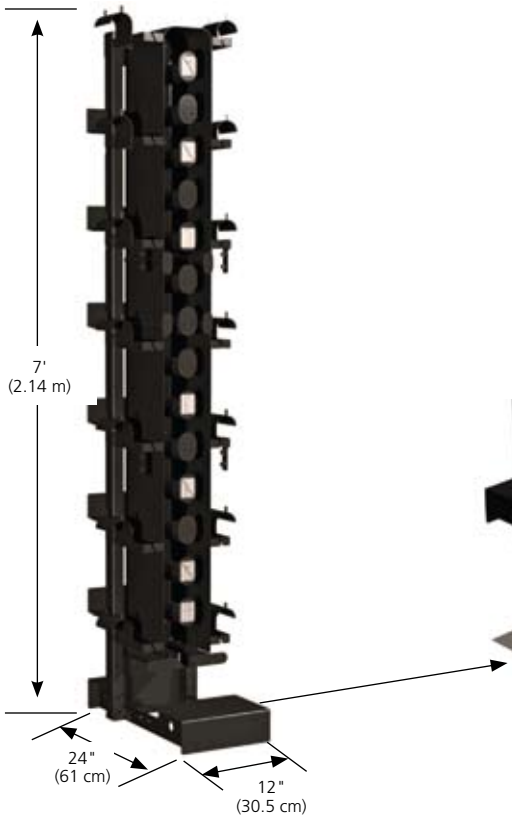
NGF and Plug-and-Play Solutions

Frame Accessories

Fiber Optic Terminal Jumper Storage Panel

The fiber optic terminal jumper storage panel is an optional filler panel that provides up to 5 meters (16.4 feet) of slack storage for jumpers that run between terminal equipment and the rear ports of an NGF terminal block in cross-connect applications. This slack storage capability allows for greater flexibility in determining jumper lengths and allows for use of more standard length jumpers. This panel is installed within the NGF frame lineup between NGF frames. The fiber optic terminal storage panels are available in two different configurations depending on the way the NGF frame system is zoned. NGF frames can be zoned by vertical or by frame. A 12-inch wide panel is available that serves two verticals (one on each side) for use when frames are zoned by vertical. Also, 8-inch wide versions are available that serve a single vertical (left or right) for use when frames are zoned by frame.



Fiber Optic Terminal Storage Panel
NGFB-ACCFOTSB

Isolation Pad shown with FOTSB
NGF-ACCISOPFS12X24

Ordering Information

Description	Dimensions	Catalog Number
Fiber Optic Terminal Jumper Storage Panel; Use with FMDF Frame, Color: Black	7' x 12" x 24" (2.14 m x 30.5 cm x 61 cm)	NGFB-ACCFOTSB
Isolation Pad – Storage Panel; A template for frame installation providing isolation between the frame and the ground		NGF-ACCISOPFS12X24

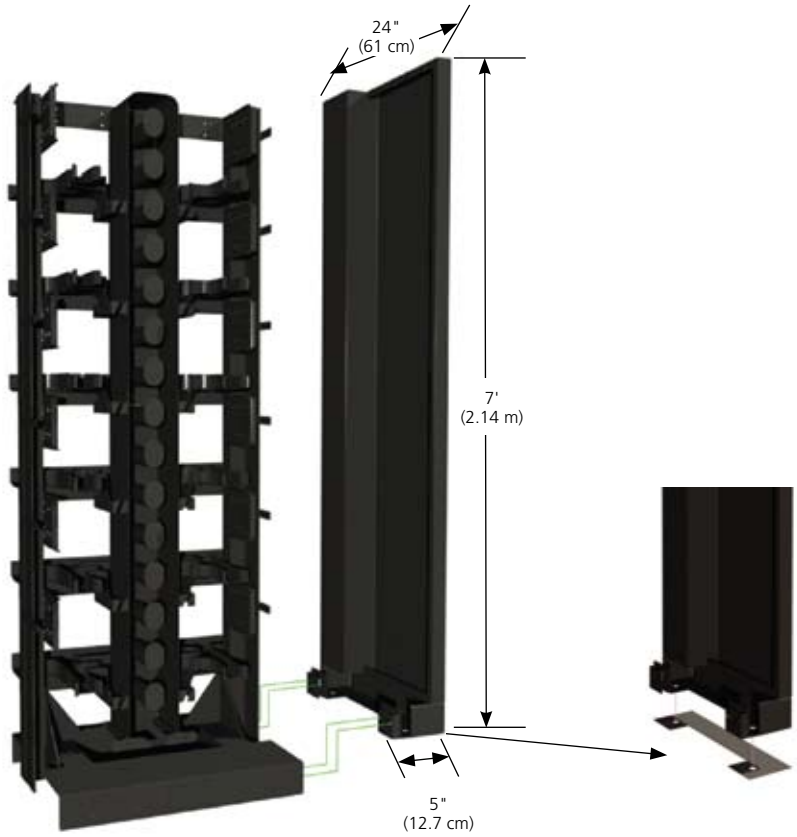
Note: When using the Fiber Optic Terminal Storage Panels, a cable exit UP block must be used.

NGF and Plug-and-Play Solutions

Frame Accessories

End Guard

End guards provide protection for the fibers entering and exiting frames at the end of a lineup. They are designed for universal fit to be used on either end of the lineup.



ODF Frame
NGFB-MDF7A144-30

End Guard
NGFB-ACCEGD007

Isolation Pad shown with End Guard
NGF-ACCISOPEG24

Ordering Information

Description	Dimensions	Catalog Number
End Guard; Use with FMDF Frames, Color: Black	7' x 5" x 24" (2.14 m x 12.7 cm x 61 cm)	NGFB-ACCEGD007
Isolation Pad – End Guard; A template for frame installation providing isolation between the frame and the ground		NGF-ACCISOPEG24

NGF and Plug-and-Play Solutions

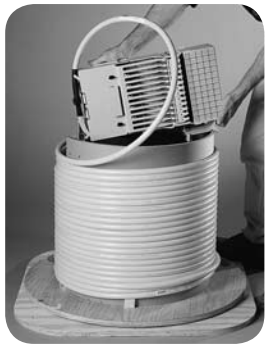
Fiber Termination Blocks (FTBs) – Factory Terminated Stubs

Configuration Information

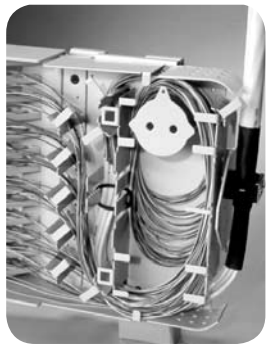
Fiber Termination Blocks (FTB) are available with factory terminated indoor rated cable (IFC) in ribbon or stranded configurations. All blocks are 100% factory tested to guarantee continuity and reliable connections. Factory terminated FTBs make installation quick and easy, reducing labor costs. Before ordering, determine the block orientation and cable exit direction. Factory terminated FTBs may be ordered with a "left" orientation (mounts on the left side of the frame) or a "right" orientation (mounts on the right side of the frame). The cable exit direction will be either "upward" (cables terminated to the rear side of the block exit up toward the top of the frame) or "downward" (cables terminated to the rear side of the block exit down toward the bottom of the frame).

Preterminated Fiber Termination Blocks Arrive from the Factory with Either IFC or OSP Cables

Fiber Cable Easily Uncoils During Installation



Fiber Termination Block Ships Inside the Drum



IFC Cables Loaded into FTB

Definition of Variables	
1	**Block Style** General adapter type required in the FTB
2	**Block Configuration** Maximum number of terminations that the FTB will accommodate when fully loaded
3	**Block Orientation** Vertical column of the frame the FTB is to be mounted on
4	**Cable Exit Direction** Direction the equipment jumpers or IFC cable will exit from the FTB
5	**Adapter/Connector #1** Specific adapter/connector type required in the FTB. Refers to the adapter/connector type at the FTB
6	**Connector #2** Specific connector type required at the cable end opposite the FTB
7	**Cable Type** Type of cable to be terminated to the FTB
8	**Cable Length** Required length of the cable terminated to the FTB

NGF and Plug-and-Play Solutions

SC Style FTBs with Factory Terminated Stubs

144-position Blocks

Catalog Number

NGFB-TB1M ___ ___ ___ ___ ___ ___ ___ ___

3 Block Orientation

L	Left
R	Right

4 Cable Exit Direction

U	Upward
D	Downward

5 Connector and Adapter Type #1

Singlemode	
7	SC ultra polish
Multimode	
9	SC
T	SC aqua (10G)[1]

6 Connector Type #2

Singlemode	
0	No connector/stub end
7	SC ultra polish
Multimode	
0	No connector/stub end
9	SC

8 Cable Length

Standard Single-Ended	
016	16 m (50')
023	23 m (75')
031	31 m (100')
046	46 m (150')
061	61 m (200')
077	77 m (250')
092	92 m (300')
122	122 m (400')
153	153 m (500')
Non-Standard	
Use XXX for non-standard length in meters	

7 Cable Type (IFC Riser)[2]

Singlemode	
ZD	144-fiber stranded
FJ	144-fiber ribbon
62.5/125 µm Multimode Fiber	
YM	144-fiber stranded
50/125 µm Multimode Fiber	
VZ	144-fiber stranded
50/125 µm LOMMF 300m Multimode Fiber	
WG	144-fiber stranded

[1] ADC recommends the use of aqua colored adapters with laser optimized multimode fiber for identification of 10 Gigabit circuits.

[2] Panels using ADC's standard cable offering have a shorter lead time than panels using a specific cable manufacturer. ADC provides GR-409 compliant cable that meets or exceeds our high quality standards. Standard cable offering above will use Corning SMF28-e, Sumitomo, Alcatel or similar singlemode fiber based on current market availability.

See previous page for definition of variables.

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NGF and Plug-and-Play Solutions

LC Style FTBs with Factory Terminated Stubs

Catalog Number

NGFB-TB4 _ _ _ _ _ _ _ _ _

2 Block Capacity

M	144
Q	192

3 Block Orientation

L	Left
R	Right

4 Cable Exit Direction

U	Upward
D	Downward

5 Connector and Adapter Type #1

Singlemode	
K	LC ultra polish
Multimode	
P	LC
C	LC aqua (10G)[1]

6 Connector Type #2

Singlemode	
0	No connector/stub end
K	LC ultra polish
Multimode	
0	No connector/stub end
P	LC

8 Cable Length

Standard Single-Ended	
016	16 m (50')
023	23 m (75')
031	31 m (100')
046	46 m (150')
061	61 m (200')
077	77 m (250')
092	92 m (300')
122	122 m (400')
153	153 m (500')
Non-Standard	
Use XXX for non-standard length in meters	

7 Cable Type (IFC Riser)[2]

Singlemode	
ZD	144-fiber stranded
GT	192-fiber stranded (2 x 96)
FJ	144-fiber ribbon
EJ	192-fiber ribbon
62.5/125 µm Multimode Fiber	
YM	144-fiber stranded
MR	192-fiber stranded (2 x 96)
50/125 µm Multimode Fiber	
VZ	144-fiber stranded
JM	192-fiber stranded (2 x 96)
50/125 µm LOMMF 300 m Multimode Fiber	
WG	144-fiber stranded
TF	192-fiber stranded (2 x 96)

[1] ADC recommends the use of aqua colored adapters with laser optimized multimode fiber for identification of 10 Gigabit circuits.

[2] Panels using ADC's standard cable offering have a shorter lead time than panels using a specific cable manufacturer. ADC provides GR-409 compliant cable that meets or exceeds our high quality standards. Standard cable offering above will use Corning SMF28-e, Sumitomo, Alcatel or similar singlemode fiber based on current market availability.

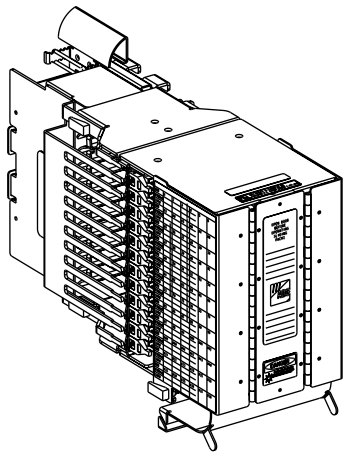
See previous page for definition of variables.

NGF and Plug-and-Play Solutions

Fiber Termination Blocks (FTBs) – Unterminated (Adapter Only)

FTBs without fiber can be ordered fully loaded with adapters. Before ordering, determine the block orientation and cable exit direction. Unterminated FTBs may be ordered with a "left" orientation (mounts on the left side of the frame) or a "right" orientation (mounts on the right side of the frame). The cable exit direction will be either "upward"* (cables terminated to the rear side of the block exit up toward the top of the frame) or "downward" (cables terminated to the rear side of the block exit down toward the bottom of the frame). All blocks with adapters only are configured to terminate single or dual jumpers on the rear of the block. If a multifiber breakout style cable (i.e., OSP/IFC) is to be terminated to the rear of the block, a separate clamping kit and replacement rear storage area kit is required (see next page). FTBs cannot be ordered with a combination of singlemode and multimode adapters. If this combination is desired, ADC recommends purchasing a fully loaded adapter only termination block, and separate sliding adapter packs to customize the block on-site.

* When using the Fiber Optic Terminal Storage Panels, a cable exit UP block must be used.



144-Position Right Upward FTB Shown

Configuration Information

Definition of Variables	
1	**Block Style** General adapter type required in the FTB
2	**Block Configuration** Maximum number of terminations that the FTB will accommodate when fully loaded
3	**Block Orientation** Vertical column of the frame the FTB is to be mounted on
4	**Cable Exit Direction** Direction the equipment jumpers or OSP cable will exit from the FTB
5	**Adapter Type** Specific adapter type required in the FTB

Ordering information continues on next page.

NGF and Plug-and-Play Solutions

Fiber Termination Blocks (FTBs) – Unterminated (Adapter Only)

144-position Blocks

Ordering Information

Description	Catalog Number
Multimode LC	
LC (beige) adapters; cable exit up; RIGHT block orientation	NGFB-TB4MRUP
LC (beige) adapters; cable exit up; LEFT block orientation	NGFB-TB4MLUP
LC (beige) adapters; cable exit down; RIGHT block orientation	NGFB-TB4MRDP
LC (beige) adapters; cable exit down; LEFT block orientation	NGFB-TB4MLDP
Multimode SC	
SC (beige) adapters; cable exit up; RIGHT block orientation	NGFB-TB1MRU9
SC (beige) adapter; cable exit up; LEFT block orientation	NGFB-TB1MLU9
SC (beige) adapters; cable exit down; RIGHT block orientation	NGFB-TB1MRD9
SC (beige) adapters; cable exit down; LEFT block orientation	NGFB-TB1MLD9
10G Multimode LC[1]	
LC (aqua) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB4MRUC
LC (aqua) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB4MLUC
LC (aqua) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB4MRDC
LC (aqua) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB4MLDC
10G Multimode SC	
SC (aqua) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB1MRUT
SC (aqua) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB1MLUT
SC (aqua) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB1MRDT
SC (aqua) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB1MLDT
Singlemode LC	
LC (blue) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB4MRUK
LC (blue) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB4MLUK
LC (blue) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB4MRDK
LC (blue) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB4MLDK
Singlemode SC	
SC (blue) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB1MRU7
SC (blue) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB1MLU7
SC (blue) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB1MRD7
SC (blue) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB1MLD7

[1] ADC recommends the use of aqua colored adapters with laser optimized multimode fiber for identification of 10 Gigabit circuits.

NGF and Plug-and-Play Solutions

Fiber Termination Blocks (FTBs) – Unterminated (Adapter Only)

192-Position Blocks

Ordering Information

Description	Catalog Number
Multimode LC	
LC (beige) adapters; cable exit up; RIGHT block orientation	NGFB-TB4QRUP
LC (beige) adapters; cable exit up; LEFT block orientation	NGFB-TB4QLUP
LC (beige) adapters; cable exit down; RIGHT block orientation	NGFB-TB4QRDP
LC (beige) adapters; cable exit down; LEFT block orientation	NGFB-TB4QLDP
10G Multimode LC1	
LC (aqua) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB4QRUC
LC (aqua) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB4QLUC
LC (aqua) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB4QRDC
LC (aqua) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB4QLDC
Singlemode LC	
LC (blue) adapters with zirconia sleeves; cable exit up; RIGHT block orientation	NGFB-TB4MRUK
LC (blue) adapters with zirconia sleeves; cable exit up; LEFT block orientation	NGFB-TB4MLUK
LC (blue) adapters with zirconia sleeves; cable exit down; RIGHT block orientation	NGFB-TB4MRDK
LC (blue) adapters with zirconia sleeves; cable exit down; LEFT block orientation	NGFB-TB4MLDK

[1] ADC recommends the use of aqua colored adapters with laser optimized multimode fiber for identification of 10 Gigabit circuits.

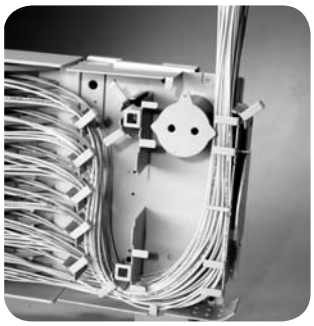
Note: ADC recommends the use of 1.7 mm/1.6 mm jumpers when deploying 192-position FTBs.

NGF and Plug-and-Play Solutions

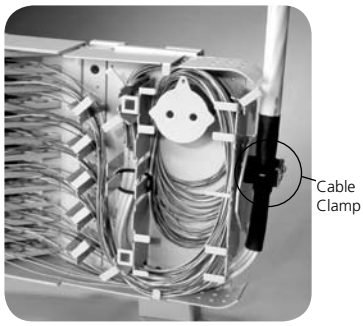
Fiber Termination Blocks (FTBs) – Unterminated (Adapter Only)

Cable Clamping/Block Conversion Kits

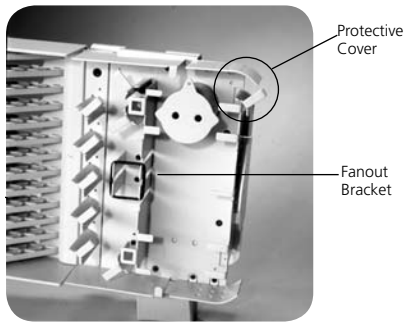
Adapter-only blocks are configured to accommodate single fiber jumpers or multifiber breakout cables. If loading a preterminated intrafacility (IFC) cable or a preterminated OSP cable is desired, additional hardware will be required. Block conversion kits are available to convert adapter only blocks to blocks that will accept preterminated IFC or OSP style cables. The conversion kits contain the cable management hardware, brackets and cable clamps required to convert the block.
The kit required will depend on the block style originally purchased.



72-Position Block Loaded with Jumpers



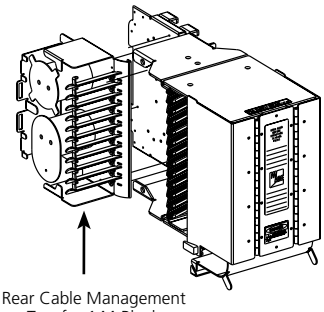
72-Position Block Loaded with Multifiber Breakout Cable



72-Position Block with Clamping Kit

Ordering Information

Description	Catalog Number
Block style originally purchased	
144- or 192-position **left up** blocks	NGFB-ACCRCMSLU
144- or 192-position **right up** blocks	NGFB-ACCRCMSRU
144- or 192-position **left down** blocks	NGFB-ACCRCMSLD
144- or 192-position **right down** blocks	NGFB-ACCRCMSRD



Rear Cable Management Tray for 144 Block Conversion Kit

NGF and Plug-and-Play Solutions

Sliding Adapter Packs

Sliding adapter packs house groups of fiber optic adapters and are mounted in Fiber Termination Blocks to provide easy access to connectors. Sliding Adapter Packs are available with SC and LC adapters. The adapters come in packs of six and eight depending on the adapter type and the desired termination density. See table below for configuration guidelines.

SC pack
(Style K)

LC pack 144-position
(Style K)

Sliding Adapter Pack Configuration Guidelines

Block Configuration	Adapter Type	Adapter Pack Configuration	Adapter Pack Option
144-Position (block code 'M') 192-Position (block code 'Q')	SC, LC LC	6 Pack/6 Pack 8 Pack/8 Pack	K (shown below) J

Ordering Information

Description	Catalog Number
144-position Blocks	
Multimode LC	NGF-SAPP0K00
Multimode SC	NGF-SAP90K00
10 G Multimode LC[1]	NGF-SAPC0K00
10 G Multimode SC[1]	NGF-SAPT0K00
Singlemode LC	NGF-SAPK0K00
Singlemode SC	NGF-SAP70K00
192-position Blocks	
Multimode LC	NGF-SAPP0J00
10G Multimode LC[1]	NGF-SAPC0J00
Singlemode LC	NGF-SAPK0J00

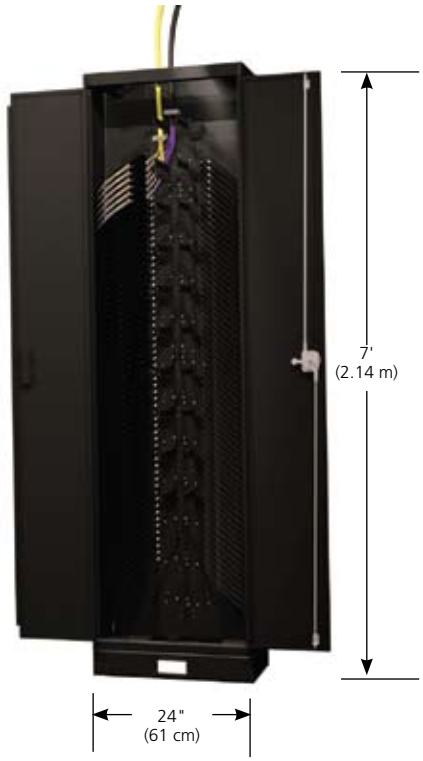
[1] ADC recommends the use of aqua colored adapters with laser optimized multimode fiber for 10 Gigabit circuit identification.

Note: ADC recommends the use of 1.7 mm/1.6 mm jumpers when deploying 192-position FTBs.

NGF and Plug-and-Play Solutions

OMX Splice Cabinet

The OMX Splice Cabinet is a high-density splice solution, housing up to 1,440 splices within a 23.6- by 11.8-inch footprint. Shipped complete with the necessary cable management, it features slots which secure and protect the round splice trays and can hold up to sixty 12-fiber splice trays on each vertical. The cabinet is shipped with lockable front doors and may be ordered for applications in which the cables enter from above or below.



OMX Splice Cabinet
MX6-BSPL-1440-U7
Doors Open and Closed

Isolation Pad shown with OMX Cabinet
MX6-BAYTEMPLATE

Ordering Information

Description	Dimensions	Catalog Number
Fully Configured Splice Cabinets; Accommodate up to 1440 fiber splices, Cable enters from top, Color: black	7' x 24" x 12" (2.14 m x 61 cm x 30.5 cm)	
Cable Exit Up; Cable enters from above		MX6-BSPL-1440-U7
Cable Exit Down; Cable enters from below		MX6-BSPL-1440-D7
Isolation Pad – Splice Cabinet; A template for cabinet installation providing isolation between the cabinet and the ground		MX6-BAYTEMPLATE

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NGF and Plug-and-Play Solutions

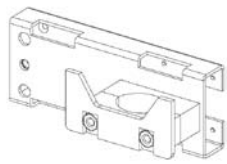
Accessories

Splice Wheel

FST-DRS24-HS

Ordering Information

Description	Catalog Number
Splice Wheel	
Accommodates up to 24 fiber splices, heat shrink fusion chip	FST-DRS24-NT
Accommodates 2x12 mass ribbon fusion splices	FST-DRS12-MT

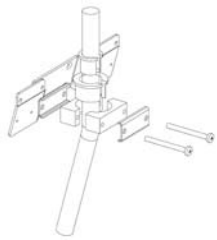


FEC-ACCCLMP01

Cable Clamps

Ordering Information

Description	Catalog Number
OMX Splice Frame Cable Clamps	
For OSP Cable	FEC-ACCCLMP01
For IFC Cable	MX6-SPLIFCCLMP



MX6-SPLIFCCLMP

Cable Clamp Kit

Cable clamp kits are available for securing IFC/OSP cable or equipment jumpers on the rear of the Fiber Termination Block (FTB). Each FTB has three cable clamp mounting positions.

Cable clamp kit for active equipment patch cord includes:

Cable clamp bracket	1 each
O-ring	1 each
Screws	2 each

Cable clamp kit for trunk cables includes:

Clamp cover	1 each
Clamps	2 each
0.5" Grommet (inner diameter)	1 each
0.6" Grommet (inner diameter)	1 each
0.7" Grommet (inner diameter)	1 each
#14 - #6 AWG split bolt	1 each
Shield bonding connector	1 each
1-foot lead wire	1 each
#6 AWG ring terminal lug	1 each
Clamp cover plate	1 each

Ordering Information

Description	Catalog Number
Cable clamp kit for equipment patch cords (included with fiber termination blocks loaded with adapters only)	NGF-ACCCLMP04
Cable clamp kit for trunk cables, dielectric cable without grounding hardware (included with fiber termination blocks with IFC)	NGF-ACCCLMP08

NGF and Plug-and-Play Solutions
Accessories

Frame Installation Kit

Frame installation kits may be used on network frames and are seismic zone 4 rated.

Computer floor kit includes:

Threaded rods	4 each, 5/8" – 11" x 30"
Heavy nuts, locks and flat washers	12 each
Nuts with springs	4 each, 1/2" x 30" and shoulder washers
Unistrut and anchor kit	1 each, 10'

Overhead support kit includes:

Designation card holder	1 each
Two-bar channel	4 each
Framing clip with 0.56	4 each
Framing clip with 0.69	4 each
Clip J-bolt	4 each, 1/2" – 13" x 18" long
Threaded rod	2 each, 5/8" x 18" long
Hex nut	4 each, 1/2" x 13"
Hex nut	4 each, 5/8" x 11"

Ordering Information

Description	Catalog Number
Frame installation kits	
For computer floor	FDF-ACC146
For overhead support	RINST-TOP7P

Standard Cross-Connect Patch Cord Lengths

Total Number of Sections Traversed[1]	Approximate Patch Cord Length Meters (Feet)
Same frame	6 m (18')
Adjacent frames	7 m (23')
3 to 4	8 m (26')
5 to 6	10 m (33')
7 to 8	11 m (36')
9 to 10	12 m (39')

[1]Depending on office requirements, 11 or more frame sections may require the use of interbay tie panels. For additional information, please call ADC Technical Assistance Center, 1-800-366-3891. For recommended cross-connect method and installation instructions, refer to User Manual ADCP-90-285.

NGF and Plug-and-Play Solutions

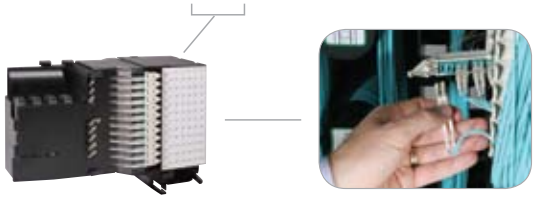
Introduction

Broadcast facilities operate at very high levels of reliability and demand design flexibility to easily accommodate frequent adds and changes to equipment. Managing the thousands of cables should always be a high priority for the network engineer—particularly for maximizing system performance and uptime.

ADC's Fiber plug-and-play solutions are designed to address the reliability, scalability, and thermal needs of today's mission-critical master control. These solutions promote increased reliability of broadcast centers through properly managed and scalable cable density, which encourages proper airflow and reduces overall installation and maintenance costs.

ADC's Next Generation Frame (NGF) with plug-and-play (MPO) cassettes is the highest density optical distribution frame solution available today. It efficiently manages up to 1,728 fiber terminations using the 144-position block in a single frame in either a cross-connect or inter-connect design.

Its patented design incorporates the fundamentals of cable management while using the industry's highest fiber count MPO plug-and-play cassettes.



Features

- Rapid installation of new deployments
- MPO trunks can enter rack from either under-floor or overhead
- Slack storage included in each rack allows for the use of a single jumper length
- On frame jumper routing provides bend radius and physical protection with slack easily and intuitively managed

Applications

- Provides managed high-density solution for optical distribution frames in the main distribution area of the data center
- Can be successfully deployed in the cross-connect architecture and still provide clear, managed pathways for fiber

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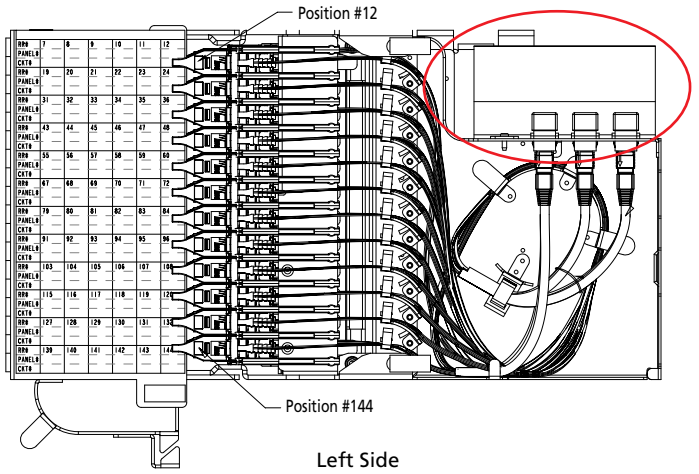
NGF and Plug-and-Play Solutions

Next Generation Frame with Plug-and-Play Cassettes

Specifications

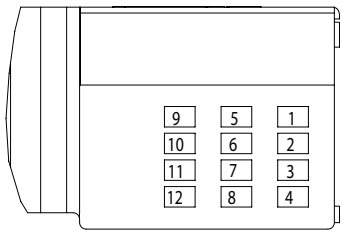


Left Side

CONNECTION TABLE 144 POS												
MPO CONECTOR TRAY												FIBER COLOR
1-48				49-96				97-144				
FIBER BUNDLE NUMBER												
1	2	3	4	5	6	7	8	9	10	11	12	
T/B POSITION												
1	13	25	37	49	61	73	85	97	109	121	133	BLUE
2	14	26	38	50	62	74	86	98	110	122	134	ORANGE
3	15	27	39	51	63	75	87	99	111	123	135	GREEN
4	16	28	40	52	64	76	88	100	112	124	136	BROWN
5	17	29	41	53	65	77	89	101	113	125	137	SLATE
6	18	30	42	54	66	78	90	102	114	126	138	WHITE
7	19	31	43	55	67	79	91	103	115	127	139	RED
8	20	32	44	56	68	80	92	104	116	128	140	BLACK
9	21	33	45	57	69	81	93	105	117	129	141	YELLOW
10	22	34	46	58	70	82	94	106	118	130	142	VIOLET
11	23	35	47	59	71	83	95	107	119	131	143	ROSE
12	24	36	48	60	72	84	96	108	120	132	144	AQUA

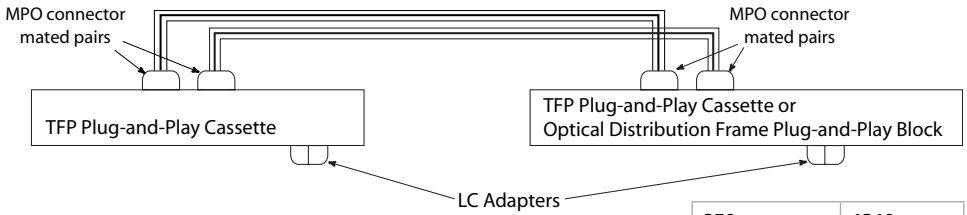
Top View

Fiber Bundle/MPO Connector Locations



OPTICAL SPECIFICATIONS

Plug-and-Play trunks



	850nm	1310nm
Module Loss (measured through MPO mated pair to LC adapter)		
Insertion Loss		
Maximum	0.5 dB	1.0 dB
Typical	0.25 dB	0.4 dB
Return Loss		
Maximum	—	-65 dB
Trunk Loss (per meter)		
Maximum	.0035 dB	.001 dB
Channel/Link Loss with 31 meter trunk (100feet) (as in figure above)		
Maximum	1.1085 dB	2.031 dB
Typical	0.6085 dB	0.831 dB

NGF and Plug-and-Play Solutions

Next Generation Frame with Plug-and-Play Cassettes

One of the most common questions regarding MPO deployments is how the system design addresses the polarity issue of the fiber. Plug-and-play trunks use a key up/key down fiber array. The plug-and-play cassettes are wired straight through. In addition, duplex jumpers have a duplex clip that is easily removed for polarity changes in the field.

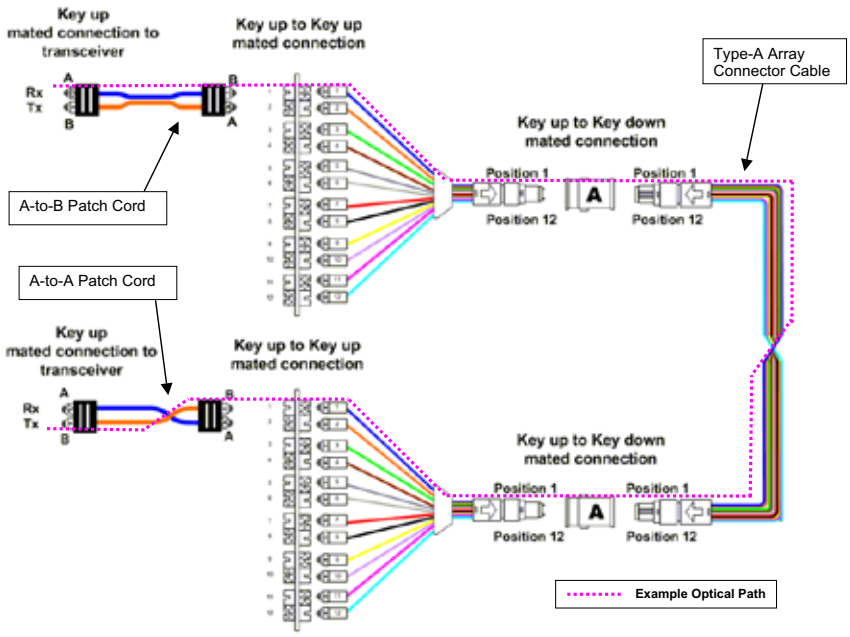


Figure 1: Connectivity method A for duplex signals

ENVIRONMENTAL CHARACTERISTICS

Storage Temperature:	-40° to 70° C (-40° to 158° F)
Operating Temperature:	0° to 70° C (32° to 158° F)
Installation Temperature:	0° to 70° C (32° to 158° F)

Ordering Information

Description	Catalog Number
Blocks loaded with Plug-and-Play Cassettes; black	
144-position block; MPO – LC (aqua) multimode adapters; 50/125 fiber laser optimized to 300 meters	
LEFT block orientation	NGFB-MPML0C112
RIGHT block orientation	NGFB-MPMR0C112
144-position block; MPO-LC singlemode adapters; Zero water peak singlemode fiber	
LEFT block orientation	NGFB-MPML0K512
RIGHT block orientation	NGFB-MPMR0K512
Rack	
30" x 24" x 7 ft frame; black	NGFB-MDF7A144-30
Rack Accessories	
ISO Pad	NGF-ACCIOSP30X24
End Guard	NGFB-ACCEGD007
End Guard ISO Pad	NGF-ACCISOPEG24
Rack Installation Kit Raised Floor	FDF-ACC146

NGF and Plug-and-Play Solutions

TFP Plug-and-Play Cassettes

ADC's TrueNet Fiber Panels (TFP) combine the unique features of vertical cable guides and our patented angle-left/angle right adapters, which offers bend radius protection, intuitive routing and easy connector access. Our TFP series can be ordered in one, two, or five rack-unit sizes to fit your unique needs. Designed for rack or cabinet mounting in the horizontal or equipment distribution area, the TFP's modularity, functionality and density make them ideal for mounting in close proximity to servers, switches, routers and SANs.

The TFP's functionality can be extended with its plug-and-play angled cassettes, which add up to 24-fiber terminations each for jumper management in SANs-rich environments. These cassettes snap into place effortlessly; and even come from the factory prelabeled with simple installation instructions.

Features

- Eliminates the need for on-site fiber terminations, which means rapid deployments
- Incorporates angle left/angle right adapters to ensure proper bend radius
- Use the same 1, 2, and 5 rack unit standard TFP chassis, which simplifies ordering

Specifications

PANEL CONFIGURATIONS

TFP Series chassis utilize modular adapter packs which are unique to either the right or left position of the chassis. The left/right position must be specified to ensure proper adapter orientation and color order in the backplane. Information below illustrates the various configurations for the three TFP chassis.

1 RU Chassis	
MPL	MPR

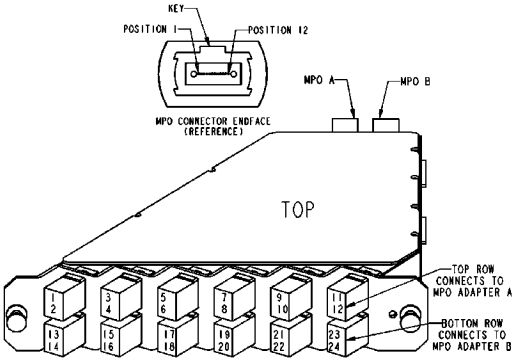
2 RU Chassis	
MPL	MPR
MPL	MPR

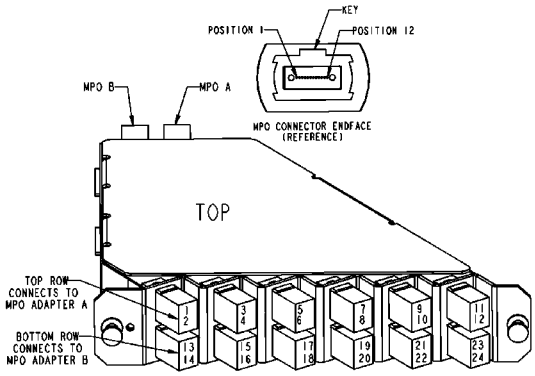
MPL = angle left plug-and-play cassette
MPR = angle right plug-and-play cassette

5 RU Chassis	
MPL	MPR
MPL	MPR
MPL	MPR
MPL	MPR
MPL	MPR
MPL	MPR

NGF and Plug-and-Play Solutions

TFP Plug-and-Play Cassettes

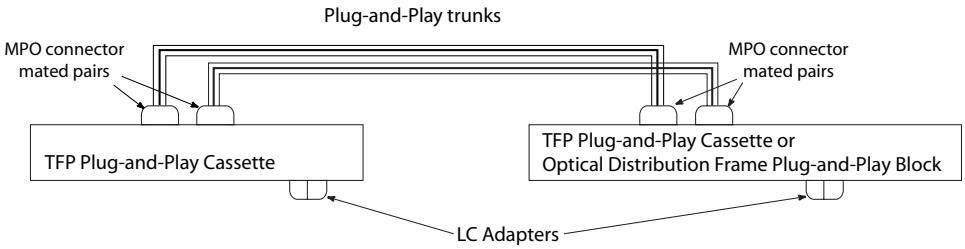




Angle Left Polarity/Wiring Scheme		
MPO – Fiber Position	**LC Connector**	**Fiber Color**
MPO-1	LC-1 & LC-13	Blue
MPO-2	LC-2 & LC-14	Orange
MPO-3	LC-3 & LC-15	Green
MPO-4	LC-4 & LC-16	Brown
MPO-5	LC-5 & LC-17	Slate
MPO-6	LC-6 & LC-18	White
MPO-7	LC-7 & LC-19	Red
MPO-8	LC-8 & LC-20	Black
MPO-9	LC-9 & LC-21	Yellow
MPO-10	LC-10 & LC-22	Violet
MPO-11	LC-11 & LC-23	Rose
MPO-12	LC-12 & LC-24	Aqua

Angle Right Polarity/Wiring Scheme		
MPO – Fiber Position	**LC Connector**	**Fiber Color**
MPO-1	LC-2 & LC-14	Blue
MPO-2	LC-1 & LC-13	Orange
MPO-3	LC-4 & LC-16	Green
MPO-4	LC-3 & LC-15	Brown
MPO-5	LC-6 & LC-18	Slate
MPO-6	LC-5 & LC-17	White
MPO-7	LC-8 & LC-20	Red
MPO-8	LC-7 & LC-19	Black
MPO-9	LC-10 & LC-22	Yellow
MPO-10	LC-9 & LC-21	Violet
MPO-11	LC-12 & LC-24	Rose
MPO-12	LC-11 & LC-23	Aqua

OPTICAL SPECIFICATIONS



	850 nm	**1310 nm**
Module Loss (measured through MPO mated pair to LC adapter)		
Insertion Loss		
Maximum	0.5 dB	1.0 dB
Typical	0.25 dB	0.4 dB
Return Loss		
Maximum	—	-65 dB
Trunk Loss (per meter)		
Maximum	.0035 dB	.001 dB
Channel/Link Loss with 31 meter trunk (100 feet) (as in figure above)		
Maximum	1.1085 dB	2.031 dB
Typical	0.6085 dB	0.831 dB

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NGF and Plug-and-Play Solutions

TFP Plug-and-Play Cassettes

ENVIRONMENTAL CHARACTERISTICS

Storage Temperature:	-40° to 70° C	(-40° to 158° F)
Operating Temperature:	0° to 70° C	(32° to 158° F)
Installation Temperature:	0° to 70° C	(32° to 158° F)

Ordering Information

Description	Catalog Number
Termination only rack or cabinet mount panel; black, T-handle latch close	
1 RU empty panel; accommodates 2 plug-and-play cassettes	TFP-1TT00-000B
2 RU empty panel; accommodates 4 plug-and-play cassettes	TFP-2TT00-000B
5 RU empty panel; accommodates 12 plug-and-play cassettes	TFP-5TT00-000B
Plug-and-Play Cassettes	
12-fiber cassettes; 6 LC (aqua) multimode adapters; 50/125 fiber laser optimized to 300 meters	
Angle **LEFT** cassette	TFP-12MPLDQ2
Angle **RIGHT** cassette	TFP-12MPRDQ2
24-fiber cassettes; 12 LC (aqua) multimode adapters; 50/125 fiber laser optimized to 300 meters	
Angle **LEFT** cassette	TFP-24MPLDQ2
Angle **RIGHT** cassette	TFP-24MPRDQ2
12-fiber cassettes; 6 LC singlemode adapters; singlemode fiber	
Angle **LEFT** cassette	TFP-12MPLSQ5
Angle **RIGHT** cassette	TFP-12MPRSQ5
24-fiber cassettes; 12 LC singlemode adapters; singlemode fiber	
Angle **LEFT** cassette	TFP-24MPLSQ5
Angle **RIGHT** cassette	TFP-24MPRSQ5

NGF and Plug-and-Play Solutions

TFP MPO Pack

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ADC introduces an MPO adapter pack for the TFP series fiber panel enclosures. This unique adapter pack contains 6 MPO adapters to terminate 6 12 fiber trunks in each one. Due to their high density, the MPO adapter packs are only available for the 1 and 2 RU TFP chassis. With the use of these adapter packs, the 1 RU will hold 144 fiber terminations, and the 2 RU will hold 288 terminations.

The TFP MPO adapter pack is ideally suited for applications with high density switches, where the additional loss of the MPO cassette is not desired. Either the TrueNet Microcable Trunks or High Count Plug-and-play trunks can be terminated in the back of the adapter pack and a TrueNet Plug-and-Play Array cable can be terminated in the front of the adapter pack.

Features

- Provides higher density in 1,2 RU TFP chassis by terminating 12 fibers in each adapter
- Limits insertion loss for loss sensitive optical budgets
- Unique angle right /angle left design allows for optimal management of the array cables off the front of the panel

Ordering Information

Description	Catalog Number
Termination Only Rack Mount Panel	
1 RU empty panel, black; accommodates 2 modular adapter packs; T-handle latch close	TFP-1TT00-000B
2 RU empty panel, black; accommodates 24 modular adapter packs; T-handle latch close	TFP-2TT00-000B
MPO adapter pack; Contains 6 MPO adapters; can be installed in either left or right position	TFP-72AP0MP
Cable Clamp; For use with 1/ 2RU chassis with high fiber count trunk applications	TFP-ACC002

NGF and Plug-and-Play Solutions

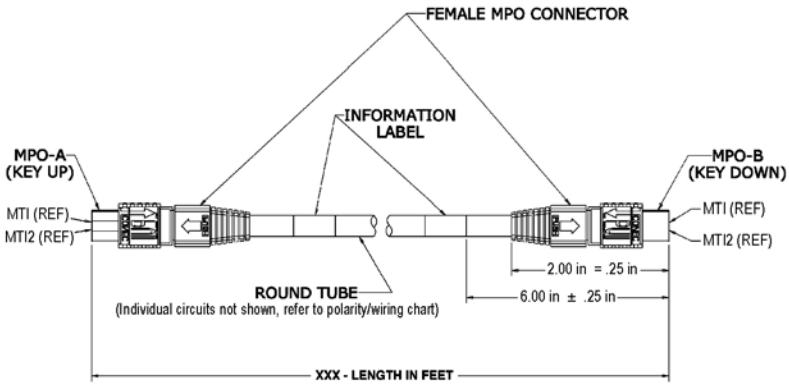
Plug-and-Play Microcable Trunks

ADC's plug-and-play microcable trunk assemblies are round 12 fiber optical trunk cables pre-terminated with a high-density MPO connector on both ends. They can be used in conjunction with any of the other plug-and-play connectivity products to rapidly deploy fiber into a broadcast center. The Microcable assemblies can simply be plugged into any plug-and-play cassette in the optical distribution frame or fiber enclosure which eliminates the need for on-site fiber termination and preparation.

Features

- Consists of a round Kevlar reinforced cable with integrated MPO strain relief and pulling pod
- Round design with outer diameter of 5.5 mm eliminates preferential bend issues which results in increased density and greater manageability
- Compatible with ADC's FiberGuide® Optical Raceway system to add increased protection and manageability

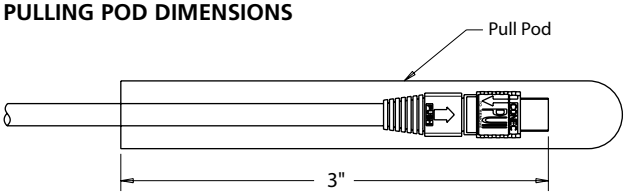
Specifications



Polarity / Wiring Scheme

MPO – A	MPO – B	Fiber Color
MT1	MT1	Blue
MT2	MT2	Orange
MT3	MT3	Green
MT4	MT4	Brown
MT5	MT5	Slate
MT6	MT6	White
MT7	MT7	Red
MT8	MT8	Black
MT9	MT9	Yellow
MT10	MT10	Violet
MT11	MT11	Rose (Pink)
MT12	MT12	Aqua

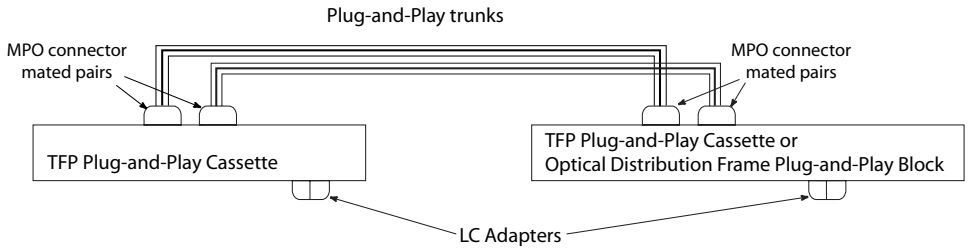
PULLING POD DIMENSIONS



NGF and Plug-and-Play Solutions

Plug-and-Play Microcable Trunks

OPTICAL SPECIFICATIONS



	850nm	1310nm
Module Loss (measured through MPO mated pair to LC adapter)		
Insertion Loss		
Maximum	0.5 dB	1.0 dB
Typical	0.25 dB	0.4 dB
Return Loss		
Maximum	—	-65 dB
Trunk Loss (per meter)		
Maximum	.0035 dB	.001 dB
Channel/Link Loss with 31 meter trunk (100feet) (as in figure above)		
Maximum	1.1085 dB	2.031 dB
Typical	0.6085 dB	0.831 dB

ENVIRONMENTAL CHARACTERISTICS

Storage Temperature: -40° to 70 °C (-40° to 158 °F)
Operating Temperature: 0° to 70 °C (-32° to 158 °F)
Installation Temperature: 0° to 70 °C (-32° to 158 °F)

Compatibility with FiberGuide

	Microcable Plug-and-Play Trunk 5.5 mm
Recommended patch cord density (per in²)	10
Maximum patch cord density (per in²)	12

ADC Recommended Density

	FiberGuide System					
Trough Pile-up	**2x2**	**2x6**	**4x4**	**4x6**	**4x12**	**4x24**
2-inch	40	120	80	120	240	480
3-inch	-	-	120	180	360	720
4-inch	-	-	160	240	480	960

Maximum Density

FiberGuide System					
2x2	**2x6**	**4x4**	**4x6**	**4x12**	**4x24**
48	144	96	144	288	576
-	-	144	216	432	864
-	-	192	288	576	1152

Ordering Information

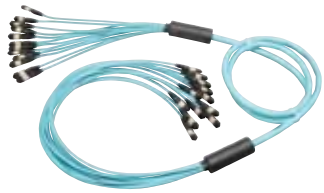
Description	Catalog Number*
MPO-MPO trunk; 12-fiber microcable; plenum jacket with pulling pod	
50/125 multimode laser optimized to 300 meters	MRM-AF/AFEG*XXX*F
Singlemode reduced water peak fiber	MRE-AF/AFEA*XXX*F

* *XXX* = length in feet (standard lengths): 100 = 100 ft, 125 = 125 ft, 150 = 150 ft.
For additional custom lengths, please contact ADC.

NGF and Plug-and-Play Solutions

High Fiber Count Plug-and-Play Trunks

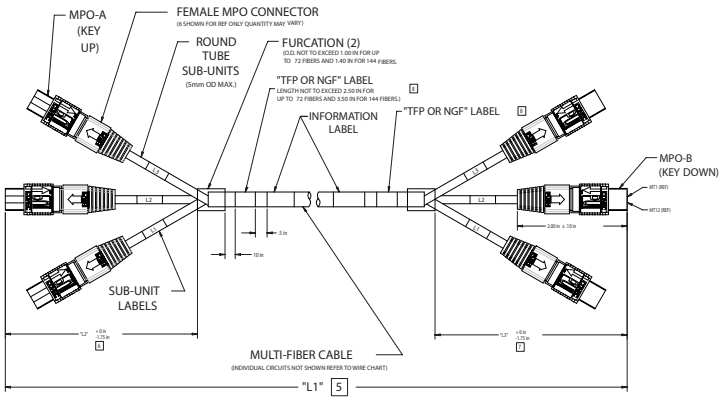
ADC's High Fiber Count Plug-and-Play Trunks provide the backbone cabling for a Plug-and-Play system. These high count trunk cables come pre-terminated with a high-density MPO connectors on both ends and provide an easy and efficient way to pull large numbers of fibers at one time to help in the rapid deployment of a Plug-and-Play system. Each trunk has custom breakouts designed to work with the ADC Plug-and-Play connectivity. The High Fiber Count Trunks can simply be plugged into any plug-and-play cassette in the optical distribution frame or fiber enclosure which eliminates the need for on-site fiber termination and preparation.



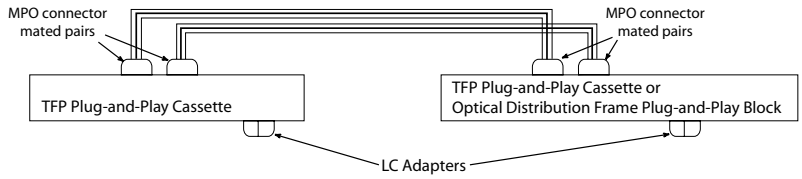
Features

- Construction of rugged loose-tube fiber cable
- Ship with a pulling sock on one end to aid with installation
- Cable assemblies contain OFNP flame rated cable
- Breakouts specifically designed to work with ADC TrueNet Plug-and-Play Connectivity

OPTICAL SPECIFICATIONS



Plug-and-Play high count trunks



Polarity / Wiring Scheme

MPO – A	MPO – B	Fiber Color
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MT4	MT4	Brown
MT5	MT5	Slate
MT6	MT6	White
MT7	MT7	Red
MT8	MT8	Black
MT9	MT9	Yellow
MT10	MT10	Violet
MT11	MT11	Rose (Pink)
MT12	MT12	Aqua

	850nm	1310nm
Module Loss (measured through MPO mated pair to LC adapter)		
Insertion Loss		
Maximum	0.5 dB	1.0 dB
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Return Loss		
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Trunk Insertion Loss (per meter)		
Maximum	.0035 dB	.001 dB
Channel/Link Insertion Loss with 31 meter (100 feet) trunk (as in figure above)		
Maximum	1.1085 dB	2.031 dB
Typical	0.6085 dB	0.831 dB

Broadcast and Entertainment Products
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NGF and Plug-and-Play Solutions

High Fiber Count Plug-and-Play Trunks

Ordering Information

Description	Catalog Number[1]
50/125 laser optimized multimode to 300 meters Trunks	
24 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFEJ*xxx*F-BB
24 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFEJ*xxx*F-AB
24 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFEJ*xxx*F-AA
48 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFFG*xxx*F-BB
48 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFFG*xxx*F-AB
48 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFFG*xxx*F-AA
72 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFGG*xxx*F-BB
72 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFGG*xxx*F-AB
72 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFGG*xxx*F-AA
96 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFKG*xxx*F-BB
96 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFKG*xxx*F-AB
96 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFKG*xxx*F-AA
144 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFHG*xxx*F-BB
144 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFHG*xxx*F-AB
144 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFHG*xxx*F-AA
Singlemode Elite Trunks	
48 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFFA*xxx*F-BB
48 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFFA*xxx*F-AB
48 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFFA*xxx*F-AA
72 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFGA*xxx*F-BB
72 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFGA*xxx*F-AB
72 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFGA*xxx*F-AA
96 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFKA*xxx*F-BB
96 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFKA*xxx*F-AB
96 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFKA*xxx*F-AA
144 fiber, MPO-MPO trunk; ODF-ODF Breakout	MRM-AF/AFHA*xxx*F-BB
144 fiber, MPO-MPO trunk; ODF-TFP Breakout	MRM-AF/AFHA*xxx*F-AB
144 fiber, MPO-MPO trunk; TFP-TFP Breakout	MRM-AF/AFHA*xxx*F-AA

[1]Note: *xxx* = lengths in feet of overall trunk.

NGF and Plug-and-Play Solutions

12 Fiber Plug-and-Play Array Cables

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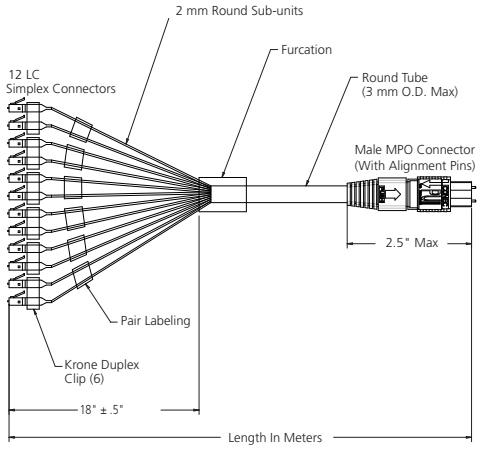
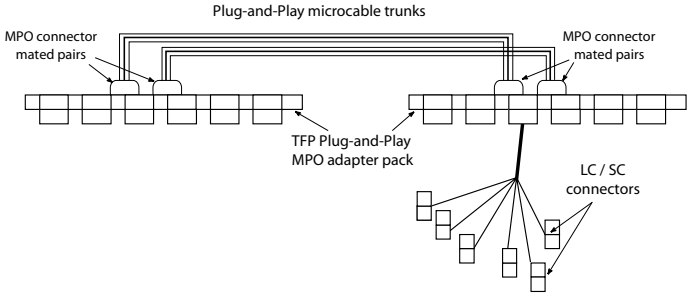
ADC's 12 Fiber Plug-and-Play Array Cables provide a convenient and efficient method to connect active equipment into the network. These 12 fiber round 3mm cables contain a pre-terminated high density MPO pinned connector on one end and either LC or SC connectors on the other. The 12 Fiber Plug-and-Play Array Cables assemblies can simply be plugged into any plug-and-play cassette in the optical distribution frame or fiber enclosure which eliminates the need for on-site fiber termination and preparation.

Features

- Round design with outer diameter of 3 mm eliminates preferential bend issues which results in increased density and greater manageability
- Each LC or SC leg clearly labeled and identified
- Standard breakout length 18 inches, which is optimum to connect to active equipment
- LC version features ADC patented clear LC duplex clip for easy removal in field

OPTICAL SPECIFICATIONS





	850 nm	1310 nm
Module Loss (measured through MPO mated pair to LC adapter)		
Insertion Loss		
Maximum	0.50 dB	1.0 dB
Typical	0.25 dB	0.4 dB
Return Loss		
Maximum	—	-65 dB
Trunk Insertion Loss (per meter)		
Maximum	.0035 dB	.001 dB
Channel/Link Insertion Loss with 31 meter (100 feet) trunk (as in figure above)		
Maximum	1.1085 dB	2.031 dB
Typical	0.6085 dB	0.831 dB

NGF and Plug-and-Play Solutions

12 Fiber Plug-and-Play Array Cables

Ordering Information

Description	Catalog Number
50/125 LOMMF to 300 meters Cable Assemblies – OFNP rated	
MPO pinned – LC; 18 in breakout; 3 meter length	MRM-AM/0PJG003M-18
MPO pinned – LC; 18 in breakout; 4 meter length	MRM-AM/0PJG004M-18
MPO pinned – LC; 18 in breakout; 5 meter length	MRM-AM/0PJG005M-18
MPO pinned – SC; 18 in breakout; 3 meter length	MRM-AM/09JG003M-18
MPO pinned – SC; 18 in breakout; 4 meter length	MRM-AM/09JG004M-18
MPO pinned – SC; 18 in breakout; 5 meter length	MRM-AM/09JG005M-18
Singlemode Elite Cable Assemblies – OFNP rated	
MPO pinned – LC/UPC; 18 in breakout; 3 meter length	MRE-AM/0KJA003M-18
MPO pinned – LC/UPC; 18 in breakout; 4 meter length	MRE-AM/0KJA004M-18
MPO pinned – LC/UPC; 18 in breakout; 5 meter length	MRE-AM/0KJA005M-18
MPO pinned – SC /UPC; 18 in breakout; 3 meter length	MRE-AM/07JA003M-18
MPO pinned – SC/UPC; 18 in breakout; 4 meter length	MRE-AM/07JA004M-18
MPO pinned – SC/UPC; 18 in breakout; 5 meter length	MRE-AM/07JA005M-18

Private Network MPO Connector Cleaning Kit

The Private Network MPO Connector Cleaning Kit contains all of the necessary components a technician would need to clean MPO connectors on site. The components come neatly arranged in a durable cloth case. Each kit contains the following:

- 100 each 2.5 mm cleaning sticks
- 100 each 1.25 mm cleaning sticks
- 1 each cleaning cassettes
- 1 each MPO bulkhead cleaner

Ordering Information

Description	Catalog Number
Private network MPO Connector Cleaning kit	MPO-CLNKIT

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Fiber Optic Cable Solutions

Introduction 7.1
Indoor/Outdoor Cable 7.2
Compact Building Cable: Plenum 7.4
Compact Building Cable: Riser 7.7
Fiber Optic Patch Cords 7.10
Fiber Optic Connectors 7.14
TracerLight® 7.17
Accessories 7.20

Fiber Cable Raceway Systems

Introduction 7.23
Features and Benefits 7.24
Recommended and Maximum Patch Cord Densities .. 7.25

Fiber Optic Cable, Patch Cords and Cable Management Solutions

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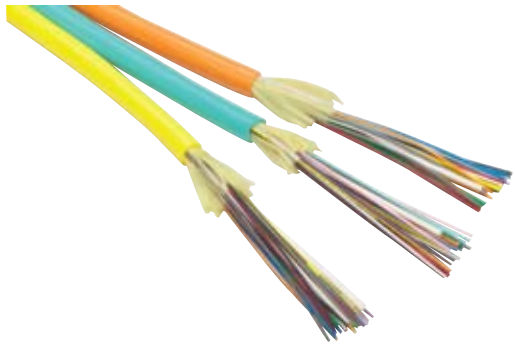
Fiber Optic Cable Introduction



ADC's Fiber Optic Solutions offers a complete family of high performance singlemode and multimode cables, including Indoor/Outdoor cables, Compact Building cables, and patch cord/pigtail cables. All cable is produced by highly automated manufacturing processes and each fiber is tested to specifications after cabling to ensure consistent quality and dependability.

All multimode fibers exceed IEEE 802.3z standards for Gigabit Ethernet performance. Fiber cable solutions also support IEEE 802.3ae standards for 300 meter 10Gbps applications as well as 550 meter 10Gbps applications. Advanced construction techniques simplify termination and allow faster installation. Each fiber cable offers low attenuation for optimum signal reliability while offering excellent crush, cut and abrasion resistance. The following are the broadcast fiber cable solutions; additional fiber cable options are available in ADC's Fiber Cable catalog. (102880AE, 105239AE)

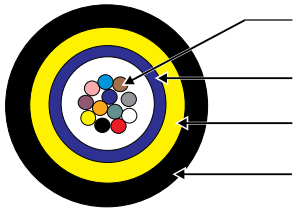
Features

- Each fiber tested to specifications after cabling
- Each fiber type available in all standard ADC cable designs
- All multimode fiber types exceed Gigabit Ethernet industry standards (IEEE 802.3z)
- Ultra 50 µm fiber is laser-optimized for 300 meter 10 Gbps applications (IEEE 802.3ae)
- Ultra 50 µm fiber for 550 meter 10Gbps applications is also available

Fiber Optic Cable, Patch Cords and Cable Management Solutions

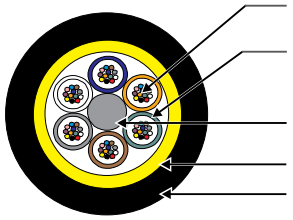
Indoor/Outdoor Cable – Dry Loose Tube Cables: Riser and Plenum Listed OFNR/FT-4 and OFNP/FT-6 c(ETL)us

Indoor/Outdoor Dry Loose Tube (up to 12 fibers)



250 µm UV Colored Optical Fiber
3.0 mm (.12") Thermoplastic Tube Drygel Water Blocked
Strength Member
Flame Retardant Outer Jacket

Indoor/Outdoor Dry Loose Tube (up to 144 fibers)



250 µm UV Colored Optical Fiber
3.0 mm (.12") Thermoplastic Tube Drygel Water Blocked
Central Strength Member
Strength Member
Flame Retardant Outer Jacket
Rip Cord

Features

- Dry cable core and dry buffer tubes provide effective water blocking without the need for traditional gel filler
- Can be placed anywhere in the network, bypassing transition points from outdoor to indoor
- Installation times reduced because there is no need to clean gels
- Excellent flame retardancy
- Flexible design for easy installation
- Color-coded buffer tubes and fibers
- Wide operating temperature: -40° to +75° C (-40° to +167° F)

Optical Performance

	Maximum Attenuation (dB/km)	Typical Attenuation (dB/km)	Guaranteed Minimum bandwidth (MHz/km)
Multimode	**850 nm/1300 nm**	**850 nm/1300 nm**	**850 nm/1300 nm**
62.5/125	3.5/1.5	3.0/1.0	200[1]/500[1]
50/125 µm ultra 300	3.0/1.5	2.5/1.0	2000[2]/500[1]
50/125 µm ultra 550	3.0/1.5	2.5/1.0	4700[2]/500[1]
	1310 nm/1550 nm	**1310 nm/1550 nm**	**1310 nm/1550 nm**
Singlemode	1.0/1.0	0.4/0.3	NA

[1]Bandwidth specified by overfilled launch (OFL)
[2]Bandwidth specified by laser-based launch

Ordering information follows on the next page.

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Indoor/Outdoor Cable – Dry Loose Tube Cables: Riser and Plenum Listed OFNR/FT-4 and OFNP/FT-6 c(ETL)us

Guaranteed Ethernet Transmission Performance

	Fast Ethernet 100 Mbps	Gigabit Ethernet 1 Gbps	10 Gigabit Ethernet 10 Gbps
Multimode	**850 nm/1300 nm**	**850 nm/1300 nm**	**850 nm/1300 nm**
62.5/125 µm	300 m/2 km	275 m/550 m	33 m/300 m[1]
50/125 µm ultra 300	300 m/2 km	1100 m/550 m	300 m/300 m[1]
50/125 µm ultra 550	300 m/2 km	1100 m/550 m	550 m/300 m[1]
	1310 nm/1550 nm	**1310 nm/1550 nm**	**1310 nm/1550 nm**
Singlemode	2 km/NA	5 km/NA	10 km/40 km

[1]10 Gigabit Ethernet distance guarantees at 1300 nm are achieved via four 3.125 Gbps channels multiplexed with WWDM technology (10GBASE-LX4)

Ordering Information

UL Type	Fibers	Diameter		Weight		Catalog Number*
		mm	in	kg/km	lb/1000'	
Dry loose tube: in/outdoor riser	6	6.5	.255	43	29	QXXXDLTIORYYY
	12	6.5	.255	43	29	
	24	10.1	.396	82	55	
	48	10.1	.396	82	55	
	72	11.9	.467	111	75	
	144	17.8	.700	252	169	
Dry loose tube: in/outdoor plenum	6	6.6	.26	48	32	QXXXDLTIOPYYY
	12	6.6	.26	48	32	
	24	6.2 x 12.6	.245 x .495	80	54	
	48	9.4	.37	82	55	
	72	11.7	.46	101	68	
	144	17.5	.69	315	212	

*Replace XXX with fiber count. Replace YYY with fiber type:

010 = Singlemode
062 = 62.5/125 µm Multimode
50U = 50/125 µm Ultra multimode laser optimized to 300 m
5U5 = 50/125 µm Ultra multimode laser optimized to 550 m

Note: Additional fiber types are available, please contact ADC.

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Compact Building Cable: Plenum

Features

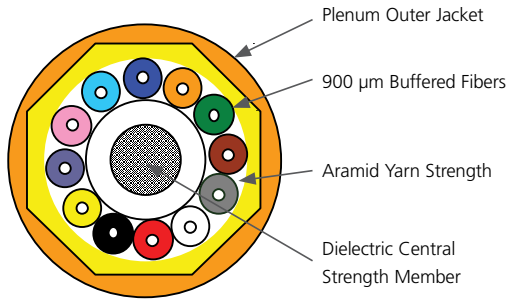
- 900 µm buffered fibers designed for one pass mechanical stripping
- All-dielectric construction
- Aramid yarn tensile strength members
- (UL) OFNP
- Easy to strip outer jacket

Applications

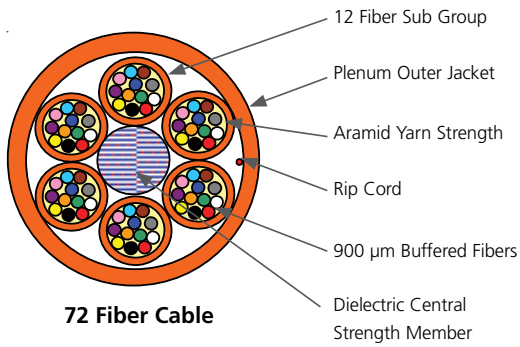
- Designed for use in backbone or horizontal cable applications
- Vertical cable runs under raised floors and within plenum overhead air spaces
- Vertical cable runs from broadcast studio to consolidation points

Compliances

- Restriction of the use of hazardous substances RoHS (2002/95/EC)
- Comply with California Prop 65 for Safe Drinking and Toxic Enforcement Act
- Telcordia GR-20 tested to relevant specifications
- Telcordia GR-409-CORE, EIA/TIA FOTPS
- EIA/TIA 568-B
- NFPA 262, NEC OFNP, FT-6



12 Fiber Cable



72 Fiber Cable

Specifications

Environmental Characteristics Riser			
Storage Temperature:	-40° to 75° C	(-40° to 167° F)	
Operating Temperature:	0° to 70° C	(32° to 158° F)	
Installation Temperature:	0° to 70° C	(32° to 158° F)	
Mechanical			
Number of Fibers	**4 – 6**	**12 – 24**	**36 – 144**
Max. Tensile Load N (lbf)			
Short Term:	1000 (224)	1800 (404)	2700 (607)
Long Term:	300 (67)	600 (135)	1000 (224)
Min. Bend Radius			
Installed:	10 x OD	10 x OD	10 x OD
Loaded:	15 x OD	15 x OD	15 x OD

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Compact Building Cable: Plenum

Optical Performance

	ISO/ IEC	Maximum Attenuation (db/km)	Typical Attenuation (db/km)	Guaranteed Minimum Bandwidth (MHz/km)
Multimode		**850 nm/1300 nm**	**850 nm/1300 nm**	**850 nm/1300 nm**
62.5/125	OM1	3.5/1.5	3.0/1.0	200[1]/500[1]
50/125 µm ultra 300	OM3	3.0/1.5	2.5/1.0	2000[2]/500[1]
50/125 µm ultra 550	OM3+	3.0/1.5	2.5/1.0	4700[2]/500[1]
		1310 nm/1550 nm	**1310 nm/1550 nm**	**1310 nm/1550 nm**
Singlemode	OS1	1.0/1.0	0.4/0.3	NA

[1] Bandwidth measurements specified overfilled launch conditions (OFL)
[2] Bandwidth measurements specified by laser launch

Transmission Performance – Guaranteed Minimum Link Lengths

Fiber Type	Fast Ethernet 100 Mbps	Gigabit Ethernet 1 Gbps	10 Gigabit Ethernet 10 Gbps
Multimode	**850 nm/1300 nm**	**850 nm/1300 nm**	**850 nm/1300 nm**
62.5/125 µm	300 m/2 km	275 m/550 m	33 m/300 m[1]
50/125 µm ultra 300	300 m/2 km	1100 m/550 m	300 m/300 m[1]
50/125 µm ultra 550	300 m/2 km	1100 m/550 m	550 m/300 m[1]
	1310 nm/1550 nm	**1310 nm/1550 nm**	**1310 nm/1550 nm**
Singlemode	2 km/NA	5 km/NA	10 km/40 km

[1] 10 Gigabit Ethernet distance guarantees at the long wavelength are achieved via four 3.125 Gbps channels multiplexed with WWDM technology

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Compact Building Cable: Plenum

Ordering Information

Fibers	Diameter		Weight		Catalog Number
	mm	inch	kg/km	lb/1000'	
4	4.3	.17	19	13	6004LFPCBCXXX
6	4.8	.19	29	19	6006LFPCBCXXX
12	6.6	.26	37	25	6012LFPCBCXXX
24	7.4	.29	61	41	6024LFPCBCXXX
36	13.5	.53	171	115	6036LFPCBCXXX
48	16.3	.69	261	176	6048LFPCBCXXX
72	19.1	.75	322	216	6072LFPCBCXXX
96	22.9	.90	325	218	6096LFPCBCXXX
144	23.4	.92	474	319	6144LFPCBCXXX

Fiber Type
Replace *XXX* with a fiber type catalog number suffix from the options below.

010 = Singlemode OS1
062 = 62.5/125 µm OM1
50U = 50/125 µm ultra 300 OM3
5U5 = 50/125 µm ultra 550 OM3+
Notes: Additional fiber types are available, please contact ADC.

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Compact Building Cable: Riser

Features

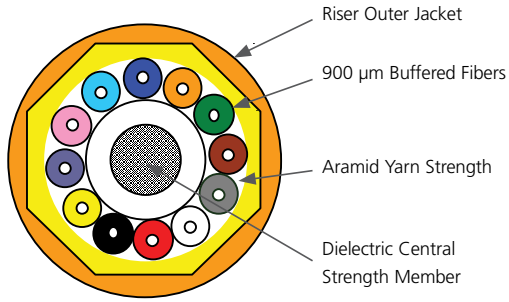
- 900 µm buffered fibers designed for one pass mechanical stripping
- All-dielectric construction
- Aramid yarn tensile strength members
- (UL) OFNR
- Easy to strip outer jacket

Applications

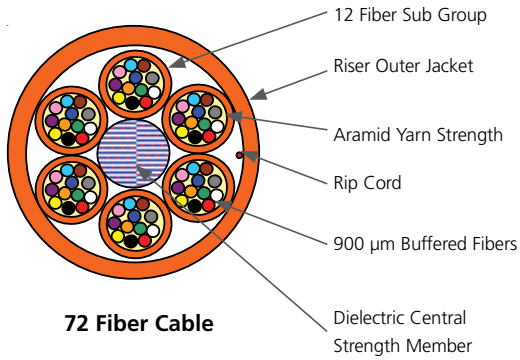
- Designed for use in backbone or horizontal cable applications
- Vertical cable runs from cross-connects to broadcast studio
- Vertical cable runs from broadcast studio to consolidation points

Compliances

- Restriction of the use of hazardous substances RoHS (2002/95/EC)
- Comply with California Prop 65 for Safe Drinking and Toxic Enforcement Act
- Telcordia GR-20 tested to relevant specifications
- Telcordia GR-409-CORE, EIA/TIA FOTPS
- ANSI/TIA 568.C.2
- (UL) 1666, NEC OFNR, FT-4



12 Fiber Cable



72 Fiber Cable

Specifications

Environmental Characteristics Riser

Storage Temperature:	-40° to 75° C	(-40° to 167° F)
Operating Temperature:	-20° to 70° C	(-4° to 158° F)
Installation Temperature:	-20° to 70° C	(-4° to 158° F)

Mechanical

Number of Fibers	**4 – 6**	**12 – 24**	**36 – 144**
Max. Tensile Load N (lbf)			
Short Term:	1000 (224)	1800 (404)	2700 (607)
Long Term:	300 (67)	600 (135)	1000 (224)
Min. Bend Radius			
Installed:	10 x OD	10 x OD	10 x OD
Loaded:	15 x OD	15 x OD	15 x OD

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Compact Building Cable: Riser

Optical Performance

	ISO/ IEC	Maximum Attenuation (db/km)	Typical Attenuation (db/km)	Guaranteed Minimum Bandwidth (MHz/km)
Multimode		**850 nm/1300 nm**	**850 nm/1300 nm**	**850 nm/1300 nm**
62.5/125	OM1	3.5/1.5	3.0/1.0	200[1]/500[1]
50/125 µm ultra 300	OM3	3.0/1.5	2.5/1.0	2000[2]/500[1]
50/125 µm ultra 550	OM3+	3.0/1.5	2.5/1.0	4700[2]/500[1]
		1310 nm/1550 nm	**1310 nm/1550 nm**	**1310 nm/1550 nm**
Singlemode	OS1	1.0/1.0	0.4/0.3	NA

[1] Bandwidth measurements specified overfilled launch conditions (OFL)
[2] Bandwidth measurements specified by laser launch

Transmission Performance – Guaranteed Minimum Link Lengths

Fiber Type	Fast Ethernet 100 Mbps	Gigabit Ethernet 1 Gbps	10 Gigabit Ethernet 10 Gbps
Multimode	**850 nm/1300 nm**	**850 nm/1300 nm**	**850 nm/1300 nm**
62.5/125 µm	300 m/2 km	275 m/550 m	33 m/300 m[1]
50/125 µm ultra 300	300 m/2 km	1100 m/550 m	300 m/300 m[1]
50/125 µm ultra 550	300 m/2 km	1100 m/550 m	550 m/300 m[1]
	1310 nm/1550 nm	**1310 nm/1550 nm**	**1310 nm/1550 nm**
Singlemode	2 km/NA	5 km/NA	10 km/40 km

[1] 10 Gigabit Ethernet distance guarantees at the long wavelength are achieved via four 3.125 Gbps channels multiplexed with WWDM technology

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Compact Building Cable: Riser

Ordering Information

Fibers	Diameter		Weight		Catalog Number
	mm	in.	kg/km	lb/1000′	
4	4.7	.19	19	13	6004LFRCBCXXX
6	5.7	.224	29	19	6006LFRCBCXXX
12	6.2	.246	37	25	6012LFRCBCXXX
24	8.5	.335	61	41	6024LFRCBCXXX
36	17.0	.67	262	176	6036LFRCBCXXX
48	19.6	.77	307	206	6048LFRCBCXXX
72	21.1	.83	414	278	6072LFRCBCXXX
96	22.4	.88	399	268	6096LFRCBCXXX
144	23.9	.94	430	289	6144LFRCBCXXX

Fiber Type
Replace *XXX* with a fiber type catalog number suffix from the options below.

010 = Singlemode OS1
062 = 62.5/125 µm OM1
50U = 50/125 µm ultra 300 OM3
5U5 = 50/125 µm ultra 550 OM3+
Note: Note: Additional fiber types are available, please contact ADC.

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Fiber Optic Patch Cords

Optical Performance

Singlemode Ultra Polish Connectors (UPC)	**SC**	**LC**
Insertion Loss (1310 and 1550 nm)	0.2 dB max. 0.09 dB typical	0.3 dB max. 0.1 dB typical
Return Loss (1310 and 1550 nm)	-57 dB min.	-55 dB min.
Fiber Recess	± 50 nm	-100 to +50 nm
Apex Offset	50 µm max.	50 µm max.
Radius of Curvature	10-25 mm	10-25 mm
Multimode Ultra Polish Connectors	**SC**	**LC**
Insertion Loss (1300 nm)	0.3 dB max.	0.3 dB max.
Return Loss (1300 nm)	-20 dB min.	-20 dB max.

Mechanical and Environmental Characteristics

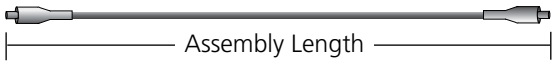
Every patch cord manufactured by ADC is designed to pass rigorous qualification testing that includes: EIA/TIA Industry Standards according to Fiber Optic Test Procedures (FOTP).

Item Specifications	EIA/TIA Test	Item Specifications	EIA/TIA Test
Temperature shock	FOTP-3	Cable flex	FOTP-1A
Humidity	FOTP-5	Cable retention	FOTP-6
Temperature life	FOTP-4	Cable twist	FOTP-36
Mating durability	FOTP-21	Impact	FOTP-2
Vibration	FOTP-11		

Fiber Optic Cable, Patch Cords and Cable Management Solutions

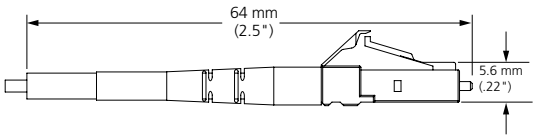
Fiber Optic Patch Cords

Patch Cords

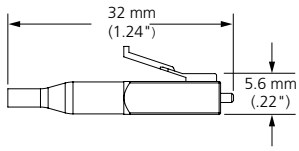


Length	Tolerance
1 to 15 m	+16 cm/-0 cm
+15 m	+1%/-0 cm

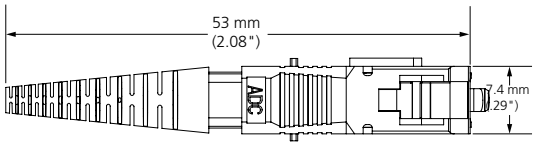
Connector Dimensions



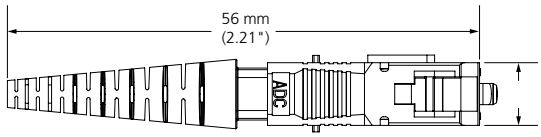
LC 2.0 mm Connector



LC 900 µm Connector



SC 2.0 mm Connector



SC 900 µm Connector

Other connector styles are available upon request. All connectors available in 2.0 mm, 1.7 mm and 900 µm cable. Please contact ADC Technical Assistance Center.

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Fiber Optic Patch Cords

As an integral part of ADC's Fiber Connectivity product portfolio, multimode fiber optic patch cords are essential to meet the requirements of today's high-speed data networks. These patch cords can be used throughout the network in cross-connect, test or equipment areas to link optical equipment.

Features

- LC and SC duplex connectors are equipped with a removable duplex clip for simple Tx/Rx reconfiguration in the field
- Lead-free OFNP jacket and RoHS compliant
- All patch cords are shipped with insertion loss tests for individual cords
- Readily available in LC-LC, LC-SC, and SC-LC configurations in standard lengths of 1, 2, 3, 5, 7, 10, and 15 meters
- Offered in configurations with standard multimode glass types of 50 micron, 62.5 micron and 50 micron ultra (laser optimized to 300 meters)

Specifications

Operating Temperature Range:	32° to 158° F (0° to 70° C)
Intermatability Standard:	TIA/EIA 604-10 (FOCIS 10)
Insertion Loss:	0.10 typical, 0.30 maximum
Reflectance:	<-20 dB (MM)

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Fiber Optic Patch Cords

62.5/125 Multimode Fiber Optic Patch Cords

Ordering Information

Description	Catalog Number[1]
62.5/125 multimode; OFNP jacket[2]	
2 mm zipcord SC-LC connectors	PAT-CLM6Q-*XXX*MPT
2 mm zipcord SC-SC connectors	PAT-CM6Q-*XXX*MPT
2 mm zipcord LC-LC connectors	PAT-LM6Q-*XXX*MPT

[1]*XXX* = length in meters:
001 = 1.0 m, 002 = 2.0 m, 003 = 3.0 m, 005 = 5.0 m, 007 = 7.0 m, 010 = 10.0 m, 015 = 15.0 m
[2]62.5/125 patch cords do not come standard in 6.0 m lengths.
Contact ADC for availability of custom lengths.

50/125 Multimode Fiber Optic Patch Cords

Ordering Information

Description	Catalog Number[3]
50/125 multimode - 150 meters @ 10 Gigabit; OFNP jacket	
2 mm zipcord SC-LC connectors	PAT-CLM5EQ-*XXX*MPT
2 mm zipcord SC-SC connectors	PAT-CM5EQ-*XXX*MPT
2 mm zipcord LC-LC connectors	PAT-LM5EQ-*XXX*MPT
1.6 mm zipcord LC-LC connectors	PAT-LM5EV-*XXX*MPT
50/125 multimode - 300 meters @ 10 Gigabit; OFNP jacket	
2 mm zipcord SC-LC connectors	PAT-CLM5UQ-*XXX*MPT
2 mm zipcord SC-SC connectors	PAT-CM5UQ-*XXX*MPT
2 mm zipcord LC-LC connectors	PAT-LM5UQ-*XXX*MPT
1.6 mm zipcord LC-LC connectors	PAT-LM5UV-*XXX*MPT

[3]*XXX* = length in meters:
001 = 1.0 m, 002 = 2.0 m, 003 = 3.0 m, 005 = 5.0 m, 007 = 7.0 m, 010 = 10.0 m, 015 = 15.0 m
Contact ADC for availability of custom lengths.

Standard Singlemode Fiber Optic Patch Cords

Ordering Information

Description	Catalog Number[4]
2 mm zipcord; OFNP jacket	
SC-SC connectors	FPC2E-SDSC-*X*M
LC-LC connectors	FPC2E-SDLC-*X*M
1.7 mm zipcord; OFNP jacket	
SC-SC connectors	FPCTE-SDSC-S-*X*M
LC-LC connectors	FPCTE-SDLC-S-*X*M

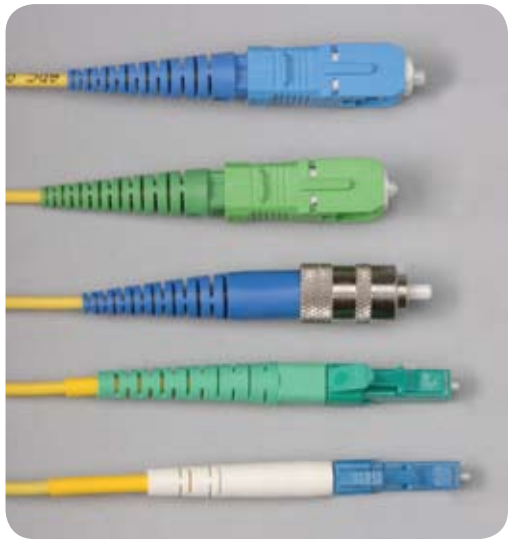
[4]*X* = length in meters: 1 = 1.0 m, 2 = 2.0 m, 3 = 3.0 m, 5 = 5.0 m, 6 = 6.0 m, 7 = 7.0 m, 10 = 10.0 m, 15 = 15.0 m

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Fiber Optic Connectors

Features

- Available in both singlemode and multimode constructions
- ST®, SC, and LC connector types available
- Connectors utilize pre-radiused zirconia ceramic ferrules
- Singlemode ultra physical contact (UPC) available for SC, and LC connectors
- SC and LC connectors can be duplexed
- ST®, SC, and LC tested to rigid Telcordia GR-326 standard
- Available for 900µm installations
- Typical insertion loss: 0.2 dB
- All styles meet Fiber Optic Connector Intermateability Standard (FOCIS) documents



ADC's Fiber Optic Connectors are essential to meet the requirements of today's high-speed data networks. ADC offers a wide array of fiber optic connectors as well as a variety of products that field installers can use to terminate multi fiber cable. The following information will outline the solutions along with the ordering information technicians will need to conduct field terminations.

Connectors are available for both singlemode and multimode applications and in the following connector types:

SC: All plastic components; "Snap Click" connections; screw on feature with key alignment

ST: All metal components; not "pull proof"

LC: Constructed with a plastic housing and provide for accurate alignment via their ceramic ferrules.

ADC also offers a comprehensive group of kits and accessories needed for termination. The Epoxy/Polish, Ideal and consumables kits contain all the tools necessary to terminate your specified connector. Also, a complete fiber connector/adapter cleaning kit is available.

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Fiber Optic Connectors

SC/ST Typical Specifications

Insertion Loss

Singemode & Multimode:	0.5 dB maximum 0.2 dB typical
Durability:	1000 mates, less than 0.2 dB change
Storage Temperature:	-55 to +85° C
Operating Temperature:	-40 to +75° C

ENVIRONMENTAL

Vibration, Impact, Thermal, Humidity:	Tested to GR-326

LC Typical Specifications

Return Loss:	> 20 dB > 50 dB > 60 dB
Insertion Loss:	0.5 dB maximum; 0.2 dB typical
Operating Temperature:	-40 to +75 degrees C (depending on cable type)
Lifetime:	1000 cycles
Cable Diameter:	Buffered Fiber: 900 µm
Tensile Strength:	Buffered Fiber: 5 N

Epoxy/Polish Connectors

Ordering Information

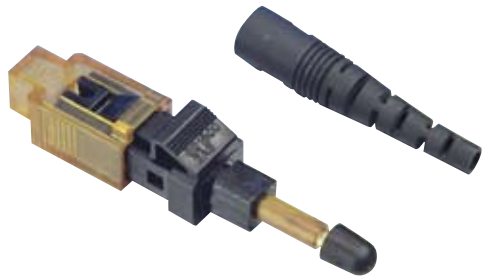
Description	Catalog Number
SC epoxy/polish connector	
Singlemode, 900µm blue boot, ceramic ferrule	EPSCUSM30096BL
Multimode, 900µm black boot, ceramic ferrule	EPSCXMM30096BK
ST® epoxy/polish connector	
Singlemode, 900µm yellow boot, ceramic ferrule	EPSTUSM30096YL
Multimode, 900µm black boot, ceramic ferrule	EPSTXMM30096BK
LC epoxy/polish connector	
Singlemode, 900µm boot, ceramic ferrule	EPLCUSM30095
Multimode, 900µm boot, ceramic ferrule	EPLCXMM30095
LC duplex clip	LCD-CLIP

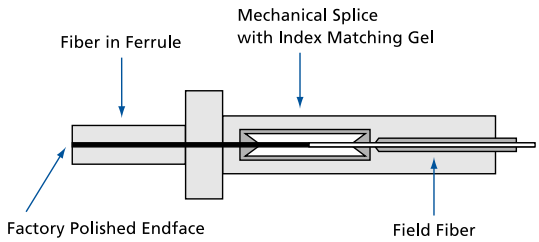
Fiber Optic Cable, Patch Cords and Cable Management Solutions

Field Installation Connectors

Features

- Available in both singlemode and multimode constructions
- ST, SC, and LC connectors available
- Pre-polished, no epoxy connector—no polishing required
- Outstanding optical performance
- Factory-assembled
- Fiber is fully bonded into the ferrule
- Fully compliant with ANSI/TIA/EIA-568-B
- Best solution for emergency repairs
- Well suited for fiber-to-the-workstation applications
- Simple tool kit with easy-to-use-tools
- Typical insertion loss: 0.4 dB (singlemode), 0.3 dB (multimode)





Ordering Information

Description	Catalog Number
SC no epoxy/no polish connector	
Singlemode, ceramic ferrule	FISC-SMSP-30
Singlemode, UPC, ceramic ferrule	FISC-SMUP-30
62.5 µm multimode, composite ferrule	FISC-M6MM-32
50 µm multimode, ceramic ferrule	FISC-M5MM-30
50 µm laser enhanced multimode, ceramic ferrule	FISC-M5UM-30
ST® no epoxy/no polish connector	
Singlemode, ceramic ferrule	FIST-SMSP-30
62.5 µm multimode, composite ferrule	FIST-M6MM-32
50 µm multimode, ceramic ferrule	FIST-M5MM-30
50 µm laser enhanced multimode, ceramic ferrule	FIST-M5UM-30
LC no epoxy/no polish connector	
Singlemode, ceramic ferrule	FILC-SMUP-30
62.5 µm multimode, composite ferrule	FILC-M6MM-30
50 µm multimode, ceramic ferrule	FILC-M5MM-30
50 µm laser enhanced multimode, ceramic ferrule	FILC-M5UM-30

Fiber Optic Cable, Patch Cords and Cable Management Solutions

TracerLight® Connector Identification System

ADC's innovative TracerLight® Connector Identification System offers a quick and accurate method of identifying the termination point of optical patch cords. Each end of a TracerLight patch cord features a flashing light source allowing technicians to visually trace individual patch cords from one end to the other without pulling or affecting the patch cord.

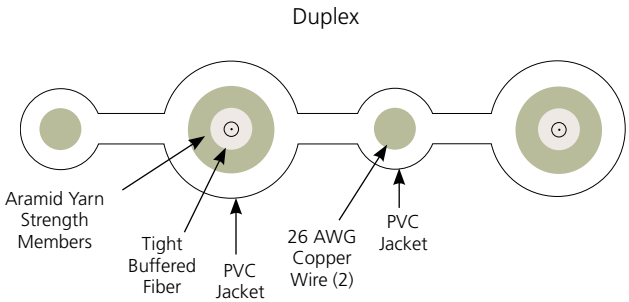
Features

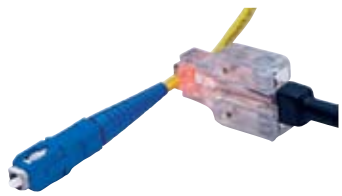
- Dramatically minimizes the risk of taking the wrong fiber out of service
- Improves system turnup speed and accuracy
- TracerLight patch cords meet all performance criteria of standard ADC patch cords
- Ideally suited for cross-connect patching
- 72% reduction in jumper turn-up times and 13% reduction in accidental down-time. TracerLight pays for itself again and again!

TracerLight Patch Cord

TracerLight optical patch cords feature a flashing light source (LED) component near each connector end. The TracerLight power source is inserted with minimal force into the TracerLight component on one end of the patch cord. This causes the LED on each end to begin flashing rapidly. As a result, the distant end of the patch cord can be quickly and easily identified without interruption of service.

Available in any standard length or connector style, TracerLight patch cords have the same functions, features, and stringent environmental requirements as our standard patch cords. Optical performance of the patch cords is not affected by the TracerLight components. TracerLight patch cords are installed in the same manner as standard patch cords and can be pulled through ADC's FiberGuide® Fiber Cable Management System with ease. Also compatible with ADC's Next Generation frame with term block counts up to 144.





TracerLight Patch Cord

Fiber Optic Cable, Patch Cords and Cable Management Solutions

TracerLight Power Source

The compact power source is comprised of a lightweight, plastic flashlight body featuring two AA batteries and a printed circuit board (PCB). It provides approximately 80 hours of continuous service and features 1-hour auto-off. The end of battery life is indicated by a slowing of the blink rate.

Specifications

CONNECTORS (Singlemode and Multimode)

Intermateability:	TIA/EIA-604-X
SC:	FOCIS-3
LC:	FOCIS-13*
Connector Body	
SC and LC:	Plastic
Ferrule:	TIA/EIA-604
LC:	Zirconia, 1.25
SC:	Zirconia, 2.5
Connector Color:	GR-326
Singlemode	
PC:	Blue
APC:	Green
Multimode	
SC:	Black
LC:	Beige

OPTICAL (Multimode)

Operating Wavelength:	850 and 1300 nm; all tested at both wavelengths
Insertion Loss:	0.3 dB maximum

OPTICAL (Singlemode)

Operating Wavelength:	1310 and 1550 nm; all tests below apply at both wavelengths
Insertion Loss:	PC: 0.2 dB maximum
	APC: 0.5 dB maximum
Return Loss:	PC: 57 dB minimum
	APC: 60.5 dB minimum

MECHANICAL (Singlemode and Multimode)

Vibration:	GR-326 and FOTP 11; ΔIL < 0.3 dB; 3 planes, 6 hrs. 10-55 Hz
Flex Cycling:	GR-326 and FOTP 1; ΔIL < 0.3 dB; 100 cycles with 2 lbs. load
Twist:	GR-326; ΔIL < 0.3 dB; 3lbs; 5 turns, 9 cycles
Mating Durability:	FOTP-21A; ΔIL < 0.3 dB; 500 cycles
Tensile Load (Proof):	GR-326 and FOTP-6; ΔIL < 0.3 dB; 15 lbs. at 0° and 7.5 lbs. at 90°
Impact:	GR-326 and FOTP-2; ΔIL < 0.3 dB; 8 drops from 1 meter (or 1.5 meters)

ENVIRONMENTAL (Singlemode and Multimode)

Thermal Age:	GR-326 and FOTP-4; ΔIL < 0.3 dB; 7 days at 85° C
Thermal Cycle:	GR-326 and FOTP-3A; ΔIL < 0.3 dB; 7 days, -40° to 75° C, 21 cycles
Humidity Age:	GR-326 and FOTP-5; ΔIL < 0.3 dB; 7 days at 75° C and 95% RH

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Ordering Information

Description	Catalog Number[1]
Multimode Duplex TracerLight Patch Cords	
LC-LC with 50/125 multimode laser optimized to 300m, aqua	FTL-PPK*XXX*M
LC-SC with 50/125 multimode laser optimized to 300m, aqua	FTL-9PK*XXX*M
SC-SC with 50/125 multimode laser optimized to 300m, aqua	FTL-99K*XXX*M
Singlemode Duplex TracerLight Patch Cords	
LC-LC Singlemode	FTL-CCZ*XXX*M
LC-SC Singlemode	FTL-7CZ*XXX*M
SC-SC Singlemode	FTL-77Z*XXX*M
Power Source	FTL-PS

[1]*XXX* – Length in meters. Standard lengths: 001 = 1 meter, 002 = 2 meters, 003 = 3 meters, 005 = 5 meters, 006 = 6 meters, 010 = 10 meters, 015 = 15 meters.

* Release Pending

Note: 0.3dB max IL @ 850/1300 included with all assemblies.

Now included with all flat polish (UPC) SC and LC singlemode connectors:

- 0.2 dB maximum insertion loss at both 1310 and 1550 nm
- 100% interferometer data
- ±50 nm recession
- <50 micron apex offset
- 10-25 mm radius of curvature

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Accessories – Field Installation Tool Kit

The following tools and materials from the field installation tool kit are required to complete the installation of the field installable connectors.

Kits include

- 2" scissors
- Tweezers
- Fiber cleaver
- Alcohol wipes
- Medium black marker
- Tape
- FI installation tool
- FI length gauge
- 411® adhesive, 0.1 oz.
- FI crimp tool
- Miller® stripping tool
- 203 mm No-Nik® stripper
- 0.018-in. No-Nik stripper
- Jacket stripper
- 23 gauge syringe

Ordering Information

Description	Catalog Number
Tool kit; Field installation tool kit	FITK

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Accessories

ADC's field termination tool kits contain all the necessary tools to terminate the specified connector. Consumable items will complete approximately 50 connectors and may be ordered separately as a consumable kit. Connector ovens may also be ordered separately. International and air shipments exclude alcohol and canned air.

Epoxy/polish Connector Tool Kits and Ideal Tool Kits are provided with a list of contents and instructions for use. The latest connector designs demand the proper strip length, epoxy application and crimp size for the connector to perform properly. Both tool kits contain a Universal Crimp Tool.

Both the Epoxy/polish Connector and Ideal Toolkits include the following

- Alcohol
- Shrink Tape
- Micro Torch
- Kim Wipes
- Canned Air
- Jacket Stripper
- Shrink Tubes
- Epoxy Mixer
- Workmat
- Cable Markers
- Utility Knife
- Tweezers
- 100X Microscope With Adapter
- 9"X13" Polish Plate
- 5 Packs of Epoxy
- 5 (9"X13") 5µm Polish Film
- 5 (9"X13") 1µm Polish Film
- 10 (9"X13") .3µm Polish Film
- Cable Ties
- 2 Storage Boxes
- 50 Pack Foam Swabs
- Economy Pen Scribe
- Red No-Nik
- Matching Gel
- Scissors
- Buffer Tube Stripper
- Universal Fiber Continuity Tester
- Universal Crimp Tool
- Fusion Splice Sleeves (Clear)
- 4 Bit Screwdriver
- Syringes (5)
- Measuring Tape
- Connector Cleaner
- Miller Stripping Tool
- Piano Wire
- Permanent Black Marker

Also included in the following toolkits specifically:

Epoxy/Polish Kit:

– Specify type of connector for Polish Disc, see ordering information

Ideal Kit:

– Contains curing oven with thermometer

– Contains Polishing Disks for ST, SC, FC connectors

Ordering Information

Description	Catalog Number
Toolkits	
Epoxy/Polish	
SC: Epoxy/polish connector tool kit, enough consumables for 50 connectors (1 per technician)	EPTK-SC
ST: Epoxy/polish connector tool kit, enough consumables for 50 connectors (1 per technician)	EPTK-ST
LC: Epoxy/polish connector tool kit, enough consumables for 50 connectors (1 per technician)	EPTK-LC
Ideal Tool Kit	
Ideal Tool Kit, enough consumables for 50 connectors (1 per technician)	IDTK
LC polishing disk for use with Ideal tool kit	EPLC-PUCK

Fiber Optic Cable, Patch Cords and Cable Management Solutions

Accessories

ADC's field termination consumables kits contain all of the consumables necessary to terminate any ADC connector. International and air shipments exclude alcohol and canned air.

Consumables kits are provided with a list of contents and instructions for use. The latest connector designs demand the proper strip length, epoxy application and crimp size for the connector to perform properly.

Kit includes

- (9"x13") 3 in one polishing paper (50)
- 5 µm Gray Section
- 1 µm Green Section
- 0.3 µm White Section
- Packs of Epoxy (10)
- Syringes (10)
- Mini foam swabs (100)
- Alcohol (8 oz)
- Kimwipes® (2 boxes)
- Canned Air (2 cans)

Ordering Information

Description	Catalog Number
Accessories	
Consumables; consumables for epoxy/polish connectors (1 per 100 connectors)	EPTK-CON
Loctite® primer; anaerobic Primer, Loctite 7649 (enough for approximately 500 connectors)	EP-LOC7649
Loctite adhesive; anaerobic adhesive, Loctite 680 (enough for approximately 500 connectors)	EP-LOC680

Fiber Connector/Adapter Cleaning Kit

The fiber connector/adapter cleaning kit contains all the items required to adequately clean fiber connectors and adapters. The performance of an optical fiber system is largely dependent on the fiber connector cleaning procedures followed prior to installation. It is suggested that all the connectors and adapters be cleaned before making any connections. The kit cleans approximately 500 connectors or adapters.

Ordering Information

Description	Catalog Number
Fiber connector/adapter cleaning kit Includes: Instruction sheet, lint-free wipes, isopropyl alcohol, cotton swabs, lint-free pipe cleaners, oil-free compressed air	FPC-CLNKIT

This kit contains flammable alcohol and compressed air. For this reason, it can be shipped by surface method only.

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Introduction
The Industry's Most Comprehensive Optical Raceway System

ADC's FiberGuide® fiber management systems offer the greatest breadth of optical raceway products in the industry. In response to customer requirements, ADC continues to innovate and improve FiberGuide systems, adding greater flexibility and driving down installation time to ensure a smooth deployment.

FiberGuide is a raceway system designed to protect and route fiber optic patch cords, multi-fiber cable assemblies and intrafacility fiber cable (IFC) to and from fiber splice enclosures, fiber distribution frames and fiber optic terminal devices. FiberGuide ensures a two-inch minimum bend radius is maintained throughout the system. Tool-less, Snap-Fit™ junctions, cover options and Plenum Express Exit™ drops significantly reduce the amount of time required for installation.

The FiberGuide system is a complete set of products designed and manufactured to ensure total off-frame protection and ease of use. Basic components include horizontal and vertical straight sections, horizontal and vertical elbows, downspouts, junctions and numerous support hardware and flex-tube kits.

Available in a variety of sizes:

2x2 – Ideal for smaller installations or for vertical routing of a maximum of four hundred 2 mm fiber optic patch cords. All 2x2 FiberGuide products are shipped with covers.

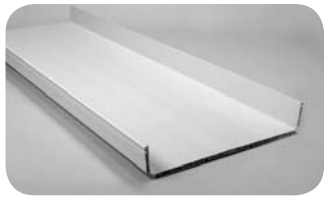
2x6 – Designed for height restricted environments, this robust system provides the same support and system flexibility of the traditional 4-inch-high system while saving 2 inches of overhead space. It features a maximum capacity of 1,200, 2 mm patch cords.

4x4 – Features the maximum capacity to support 1,600, 2 mm patch cords. It has been engineered to allow straight sections to be self-supporting over a span of up to 1.83 m (6 feet).

4x6 – Features the same benefits of the 4-inch system and a maximum trough capacity of 2,400, 2 mm patch cords.

4x12 – The 12-inch-wide trough has a maximum capacity to support nearly 5,000, 2 mm patch cords. Perfect for runs over fiber frame lineups and perimeter routes.

4x24 – The 4x24-inch system is the ultimate raceway solution to securely route and protect patch cords over high-density optical distribution frames including ADC's Data Center Optical Distribution Frame (ODF). Designed for maximum capacity, this robust system provides the same support and flexibility as the traditional 4x12-inch system while doubling capacity.



For additional information on ADC's FiberGuide Solutions view catalog 104892AE at www.adc.com

To configure a FiberGuide System contact ADC's Technical Assistance Center.

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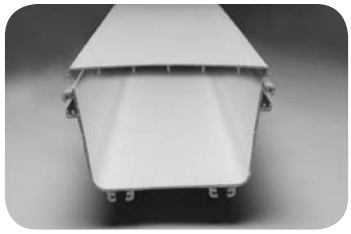
Fiber Optic Cable, Patch Cords and Cable Management Solutions

Features and Benefits



Features and Benefits

Speed of Installation

FiberGuide systems feature a variety of products that allow for quick and easy installation. Express Exit™ drops as well as tool-less products including Snap-Fit™ junctions, snap-on covers and new hinged cover options save valuable time for installers.

Speed of Deployment

The Express Exit system enables new drops to be added or removed quickly and easily. A drop can be added into a fully loaded raceway in seconds—without cutting.

Raceway Flexibility

FiberGuide features 38 support structures, over 75 fittings, multiple drop options and several other components to suit any application you create.

Fiber Protection

ADC's fiber expertise translates into maximum protection for your network. Two inch minimum bend radius is maintained throughout the system regardless of the raceway size.

Strength and Durability

100% raceway reliability—stands up to any challenge.

For additional information on ADC's FiberGuide Solutions view catalog 104892AE at www.adc.com

To configure a FiberGuide System contact ADC's Technical Assistance Center.

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Fiber Optic Cable, Patch Cords and Cable Management Solutions

Recommended and Maximum Patch Cord Densities

Recommended capacity takes into consideration random jumper placement into the FiberGuide system. Maximum density refers to the maximum number of fiber jumpers in a given cross-section of a FiberGuide installation. The TracerLight® Connector Identification System is ADC's newest patch cord solution. It features slightly different dimensions than standard patch cords.

Recommended/Maximum Density

1.7 mm Patch Cords (per in²)	2.0 mm Patch Cords (per in²)	3.0 mm Patch Cords (per in²)
120/142	90/102	40/44

Trough Pileup Recommended/Maximum Density

	2-Inch	3-Inch	4-Inch
4x24 System			
1.7 mm	5760/6816	8640/10224	11520/13632
2.0 mm	4320/4869	6480/7344	8640/9792
3.0 mm	1920/2112	2880/3168	3840/4224
4x12 System			
1.7 mm	2880/3408	4320/5112	5760/6816
2.0 mm	2160/2448	3240/3672	4320/4896
3.0 mm	960/960	1440/1584	1920/2112
4x6 System			
1.7 mm	1440/1704	2160/2556	2880/3408
2.0 mm	1080/1224	1620/1836	2160/2448
3.0 mm	480/528	720/792	960/1056
4x4 System			
1.7 mm	960/1136	1440/1704	1920/2272
2.0 mm	720/816	1080/1224	1440/1632
3.0 mm	320/352	480/528	640/704
2x6 System			
1.7 mm	1440/1740	–	–
2.0 mm	1080/1224	–	–
3.0 mm	480/528	–	–
2x2 System			
1.7 mm	480/568	–	
2.0 mm	360/408	–	–
3.0 mm	160/176	–	–

TracerLight Patch Cords—65 Patch Cords per in²

	2-inch	3-inch	4-inch
4x24 System	3120	4680	6420
4x12 System	1560	2340	3120
4x6 System	780	1170	1560
4x4 System	520	780	1040
2x6 System	780	–	–
2x2 System	260	–	–

For additional information on ADC's FiberGuide Solutions view catalog 104892AE at www.adc.com

To configure a FiberGuide System contact ADC's Technical Assistance Center.

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