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ePC-Series

Embedded High Performance Ultra-Thin 12.1" to 19" TFT Industrial PCs



**NEW! 12.1"
Version Now
Available!**

With the Nematron ePC-Series, "embedded" doesn't have to mean low performance any longer. This series offers ultra-thin industrial PCs with Intel® Duo Core™ Technology to power the most demanding operator interface and SCADA applications. Now available with your choice of 12.1", 15", 17", or 19" LCD displays, the ePC-Series are setting a new benchmark for "Industrial PCs".

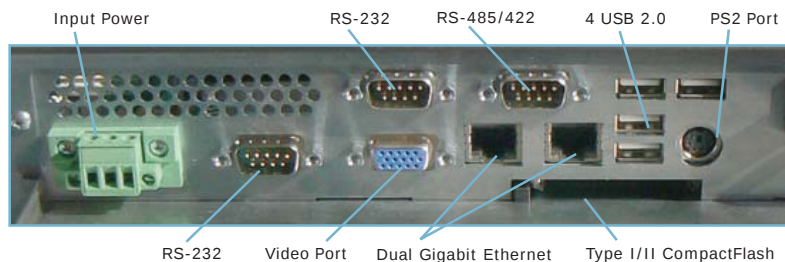
Standard Features

- 12.1" SVGA to 19" SXGA Color TFT LCD Display
- Optional 5-wire Analog Resistive Touchscreen
- Ultra-Thin panel mounting depth, less than 3.2"
- High Performance / Low Power Processor options* to choose from:
 - Intel® Celeron® M 440 (1.86 GHz, 1 M cache, 533 MHz bus)
 - Intel® Core Duo™ T2500 (2.0 GHz, 2 M cache, 667 MHz bus)
- DRAM up to 2 GB
- 160 GB easily removable SATA hard drive
- Solid State and High Reliability options available
- Extensive I/O Connectivity
 - Dual Gigabit (10/100/1000) Ethernet ports
 - 4 USB 2.0 ports
 - 1 RS-485/422 serial port (jumper selectable)
 - 2 RS-232 serial ports
 - PS/2 port
 - Additional video port (supports dual video)
 - Rear accessible CompactFlash™ Type I/II socket
- VESA mountable (rear surface)
- Integral 100-240 VAC power supply - 24 VDC optional
- Powder Coated Aluminum Front Panel (optional Stainless Steel)
- NEMA 4/4x12 front panel
- 2-year Warranty
- UL 508 and UL 1604 listed for Hazardous Locations: Class I, Division 2, Groups A, B, C, D and Class II, Division 2, Groups F and G when mounted in a NEMA enclosure
- FCC & European CE compliant
- RoHS compliant
- Windows® XP Professional (Windows 7 and Vista Business optional)

* Fan-less Versions now available. See ePC Fan-less Series datasheet.

Features & Benefits

Extensive I/O Connectivity



Easily Removable SATA Hard Drive

- Solid State options
- High Reliability options



Ultra-thin, extremely compact design

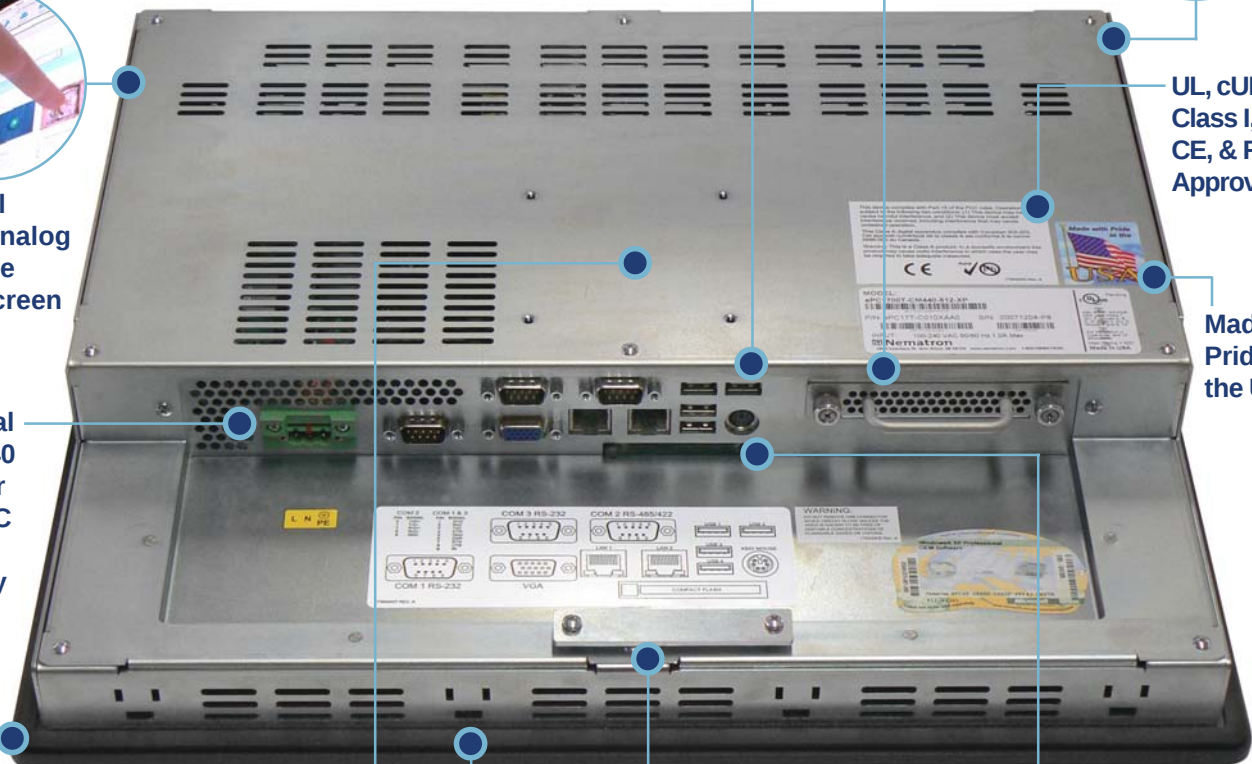


Optional 5-wire Analog Resistive Touchscreen

UL, cUL 508, Class I, Div 2, CE, & RoHS Approvals

Made with Pride in the USA

Integral 100-240 VAC or 24 VDC Power Supply



Powder Coated Aluminum or Stainless Steel Front Panels



USB, Ethernet, & PS/2 Hold Down



CompactFlash to replace CD-ROM and floppy drives



VESA Mounting

- ePC1200/1500/1700: 75mm
- ePC1900: 100mm



NEMA Panel Mounting via Clips



High Performance / Low Power Processor Options*

- Intel® Celeron® M 440 (1.86 GHz, 1 M cache, 533 MHz bus)
- Intel® Core Duo™ T2500 (2.0 GHz, 2 M cache, 667 MHz bus)

* Fan-less Versions now available. See ePC Fan-less Series datasheet.



Meet all RoHS Hazardous Safety Standards.



Technical Specifications

PERFORMANCE

Chipset	Intel 945GME + ICH7M	
Video	Integrated in system chipset	
Video RAM	8 MB - 128 MB (system RAM)	
Processor	CM440	T2500
Type	Intel Celeron M	Intel Core Duo
Core Speed	1.86 GHz	2.0 GHz
Front Side Bus	533 MHz	667 MHz
L2 Cache	1MB	2MB

DISPLAY

	ePC1200	ePC1500	ePC1700	ePC1900
Display Diagonal	12.1" (307.34mm)	15.0" (381.0mm)	17.0" (431.8mm)	19.0" (482.6mm)
Display Sizes (Active Area H x V)	9.69" x 7.26" (246.0mm x 184.5mm)	11.97" x 8.98" (304.0mm x 228.1mm)	13.30" x 10.64" (337.8mm x 270.3mm)	14.82" x 11.85" (376.4mm x 301.0mm)
Native Resolution	SVGA, 800 x 600	XGA, 1024 x 768	SXGA, 1280 x 1024	SXGA, 1280 x 1024
Displayable Colors	262K	16M	16M	16M
Brightness, Typical	400 Nit	250 Nit	300 Nit	300 Nit
Contrast Ratio, Typical	500:1	800:1	800:1	1300:1
Horizon/Vertical View Angle, CR>5, Typical	130°/110°	150°/145°	176°/170°	178°/178°
Backlight Life, Typical	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs

TOUCH SCREEN (all models)

Touch Screen Technology	5-wire Analog Resistive
Resolution	4096 x 4096
Positional Accuracy (Maximum Error)	0.18" (0.19" ePC1900) 4.57mm (4.83mm ePC1900)
Positional Accuracy (Standard Deviation of Error)	< 0.08" (< 2.0 mm)
Expected Life	>35,000,000 Activations

MEMORY

DRAM Type	200-pin DDR2 SO-DIMM, non-ECC, un-buffered
DRAM Bus Speed	667 MHz (CM440 - 533 MHz)
DRAM Maximum	Single Module, 2 GB
Hard Drive Type	2.5", SATA II
Hard Drive Size	160 GB Minimum
Solid State Hard Drive	40 GB or 80 GB (optional)
High Reliability Hard Drive	40 GB or 80 GB (optional)

ELECTRICAL

AC Input Voltage	100-240 VAC, 50/60 Hz
AC Input Current	1.0 A Maximum
DC Input Voltage (optional)	18-36 VDC
DC Input Current (optional)	4.5 A Max
Input Power	ePC1200/1500 - 50 W Typical* ePC1700 - 60 W Typical* ePC1900 - 70 W Typical*

* Typical Power is measured without any additional I/O or expansion options. Any additional I/O installed during application can increase this value.

ENVIRONMENTAL

	Operating 0°C to 50°C	Non-operating -20°C to 60°C
Temp.		
Humidity	20% to 80% RH, noncondensing	
Shock ¹	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration ¹	.006" peak to peak displacement (5-2000 Hz) 1.0g maximum acceleration	.015" peak to peak displacement 2.5g maximum acceleration
Altitude ²	Sea level to 10,000 feet	Sea level to 40,000 feet

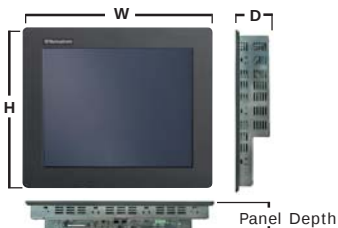
¹ Shock & Vibration specifications established with Solid State drives and no rotating media.

² Altitude specification is established by using all internal component specifications.

PHYSICAL

	ePC1200	ePC1500	ePC1700	ePC1900
Overall Dimensions (H x W x D)	10.475" x 12.9" x 3.42" (266.1mm x 327.7mm x 86.75mm)	12.80" x 15.80" x 2.95" (325.1mm x 401.3mm x 74.9mm)	14.48" x 17.14" x 3.10" (367.8mm x 442.0mm x 78.7mm)	15.70" x 18.66" x 3.25" (398.8mm x 474.0mm x 82.6mm)
Panel Mounting Depth	3.165" (80.4mm)	2.70" (68.6mm)	2.85" (72.4mm)	3.00" (76.2mm)
Cutout Dimensions (H x W)	9.68" x 12.10" (245.9mm x 307.3mm)	12.00" x 15.00" (305.0mm x 381.0mm)	13.70" x 16.35" (348.0mm x 415.3mm)	14.90" x 17.75" (378.5mm x 450.9mm)
VESA Mount Pattern (M4 Threads)	75x75mm	75x75mm	75x75mm	100x100mm
Weight	10.5 lbs (4.76kg)	14.0 lbs (6.35kg)	19.0 lbs (8.63kg)	22.5 lbs (10.22kg)
Shipping Weight	14.0 lbs (6.35kg)	16.5 lbs (7.5kg)	23.5 lbs (10.67kg)	27.5 lbs (12.49kg)
Option Weight (SS)*	+2.5 lbs (1.13kg)*	+3.5 lbs (1.58kg)*	+3.75 lbs (1.70kg)*	+4.0 lbs (1.81kg)*

* Additional weight for Stainless Steel option.



Cutout Dimensions

12.10" (W) 307.3mm 9.68" (H) 245.9mm	15.00" (W) 381.0mm 12.00" (H) 305.0mm	16.35" (W) 415.3mm 13.70" (H) 348.0mm	17.75" (W) 450.9mm 14.90" (H) 378.5mm
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Order Number Generation

Base unit configuration: ePCx00T-CM440-1GB-XP, where **x** = 12, 15, 17, or 19 (for display size), includes a touchscreen, Celeron M 440, 1 GB DRAM, 160 GB SATA Hard Drive, and Windows XP Professional.

ePC		-						
Display Size:								
1200	12.1" SVGA LCD							
1500	15.0" XGA LCD							
1700	17.0" SXGA LCD							
1900	19.0" SXGA LCD							
Input Options:								
T	Touchscreen							
blank	None							
Processor:								
CM440	Celeron M 440							
T2500	Core Duo T2500							
DRAM Options:								
-1GB	1 GB DRAM							
-2GB	2 GB DRAM							
Hard Drive:								
-blank	160 GB (minimum) SATA hard drive							
-40EX	40 GB (minimum) High Reliability hard drive ¹							
-40SS	40 GB Solid State SATA hard drive ¹							
-80EX	80 GB (minimum) High Reliability hard drive ¹							
-80SS	80 GB Solid State SATA hard drive ¹							
Operating System:								
-XP	Windows XP Professional							
-VS	Windows Vista Business Edition							
-W7	Windows Seven							
-NOS	No OS installed							
Power Supply:								
blank	120-240 VAC							
-DC	24 Volt DC							
Front Panel:								
blank	Powder Coated Aluminum							
-NL	Powder Coated Aluminum w/o Logo							
-SS	Machined 304 Stainless Steel							
-RM	Rackmount Powder Coated Aluminum (ePC1900 only) ²							

¹ Extreme High Reliability Hard Drive and Solid State Drive options carry a 5-year (part only) warranty.

² Rackmount front panel is not NEMA 4/4x12 and the unit is not approved for Hazardous Locations.



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