

ePC-Series

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



Now Standard
with Solid State
Drive & 2 GB DRAM

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".

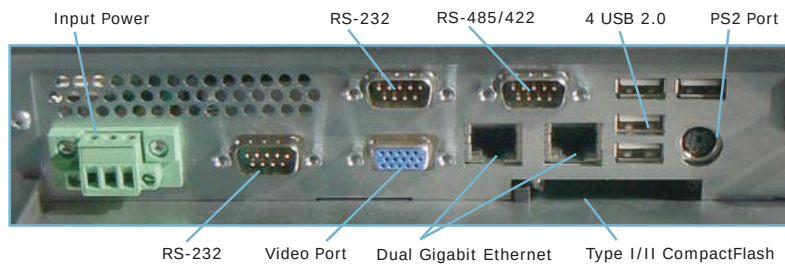
Standard Features

- 12.1" SVGA to 19" SXGA Color TFT LCD Display
- 5-wire Analog Resistive Touchscreen
 - Optional clear Lexan window
- 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)
- 2 GB DRAM
- Intel 40 GB Easily Removable SATA Solid State Drive
 - Optional larger sizes and rotating HD
- 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
- 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 and cUL Ordinary Locations Listed
- UL and cUL Hazardous Locations Listed
 - Class I Division 2, Groups A, B, C, & D; Class II Division 2, Groups F & G; Class III when mounted in a NEMA enclosure
- FCC & European CE compliant
- RoHS compliant
- Windows® XP Professional (Windows 7 Professional optional)

* Fanless Versions now available. See ePC Fanless Series datasheet.

Features & Benefits

Extensive I/O Connectivity



Easily Removable SATA Solid State Drive

- Larger Sizes or Conventional Hard Drive optional



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)

* Fanless Versions now available. See ePC Fanless Series datasheet.



Meet all RoHS Hazardous Safety Standards.



Standard 2-year warranty

- Covers parts and service



Technical Specifications

SYSTEM SPECS

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

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 Interface	2.5", SATA II
Solid State Hard Drive	40 GB (80 and 160 GB optional)
Conventional Hard Drive	250 GB minimum SATA (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

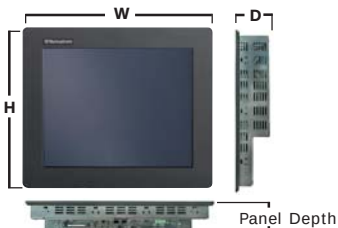
¹ Shock & Vibration specifications established with Solid State drives and no rotating media.

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)	15.0 lbs (6.80kg)	19.0 lbs (8.63kg)	22.5 lbs (10.22kg)
Shipping Weight	14.0 lbs (6.35kg)	19.5 lbs (8.84kg)	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-CM440-2GB-40SS-XP, where x = 12, 15, 17, or 19 (for display size), includes a touchscreen, Celeron M 440, 2 GB DRAM, 40 GB SATA Solid State Drive, and Windows XP Pro.

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:								
-2GB	2 GB DRAM							
Hard Drive:								
-40SS	40 GB SATA Solid State Drive ¹							
-80SS	80 GB SATA Solid State Drive ¹							
-160SS	160 GB SATA Solid State Drive ¹							
-blank	250 GB (minimum) SATA hard drive							
Operating System:								
-XP	Windows XP Professional							
-W7	Windows 7 Professional (32-bit)							
-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 Solid State Drive options carry a 5-year (part only) warranty.

² Rackmount front panel is not NEMA 4/4x12 and the unit is required to be installed on a rack in a Type 1 enclosure.



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