

For more information or to request a quote, visit us online at www.nematron.com

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".

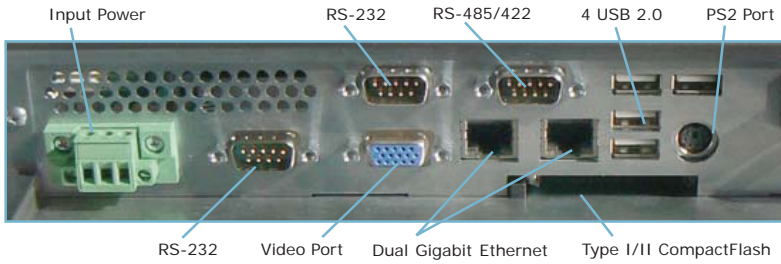
Standard Features

- 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 4/4x/12 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 (ePC1200 pending)
- 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

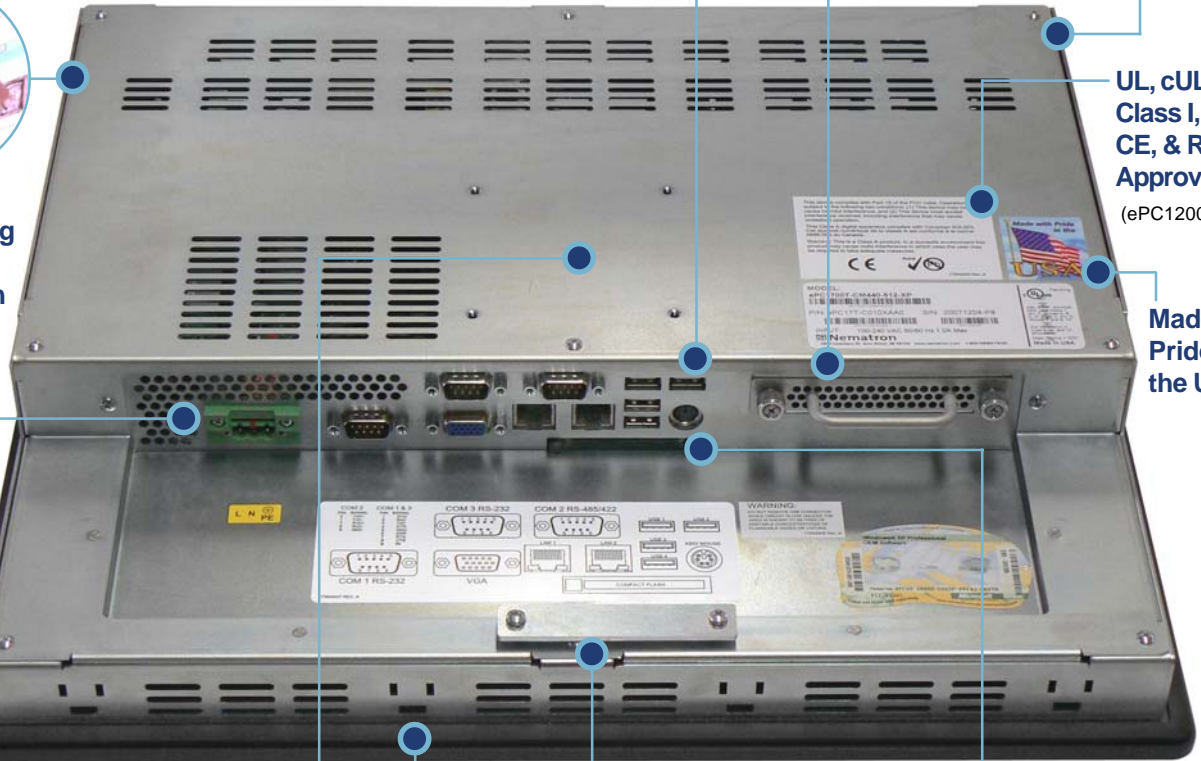


Optional 5-wire Analog Resistive Touchscreen

UL, cUL 508, Class I, Div 2, CE, & RoHS Approvals
(ePC1200 pending)

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 |

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) |

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 |

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

| Temp. | Operating 0°C to 50°C | Non-operating -20°C to 60°C |
|------------------------|--|--|
| Humidity | 20% to 80% RH, noncondensing | |
| Shock ¹ | 15g peak acceleration, 11msec | 30g peak acceleration, 11msec |
| Vibration ¹ | .006" peak to peak displacement 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.

AGENCY

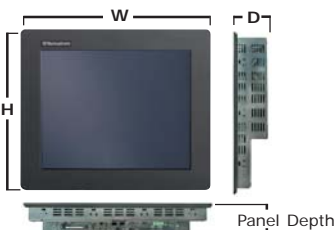
| | |
|---|--|
| Front Panel NEMA Rating | NEMA 4/4X/12, IP65 |
| FCC | 47 CFR, Part 15, Class A |
| EU CE Marking Compliance | CE, EN 55022: Class A, EN 61000-3-3, EN 61000-6-2, IEC 60950-1, RoHS compliant |
| Safety Agency Approvals (ePC1200 pending) | UL508 Listed, UL 1604 Listed *, cUL Listed CSA C22.2, #142, cUL Listed CSA C22.2, #143 * |

* Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G; Temp. Code: T4A, when installed on a flat surface of a Type 1, 4, 4X, or 12 enclosure.

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

| Model | Width (W) | Height (H) |
|---------|------------------|------------------|
| ePC1200 | 12.10" (307.3mm) | 9.68" (245.9mm) |
| ePC1500 | 15.00" (381.0mm) | 12.00" (305.0mm) |
| ePC1700 | 16.35" (415.3mm) | 13.70" (348.0mm) |
| ePC1900 | 17.75" (450.9mm) | 14.90" (378.5mm) |

