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## ePC-Series

Embedded High Performance Ultra-Thin 15" to 19" TFT Industrial PCs



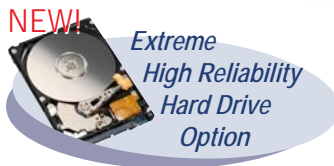
ePC1900



ePC1500



ePC1700



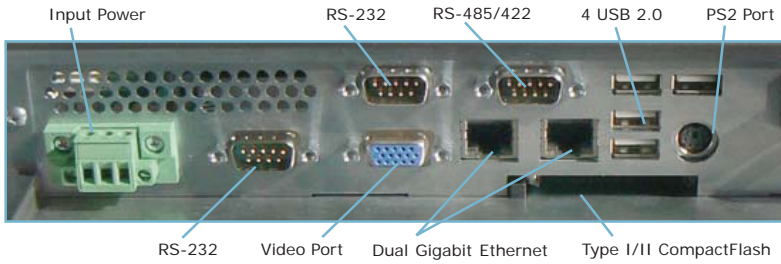
With the Nematron ePC-Series, "embedded" doesn't have to mean low performance any longer. This series offers ultra-thin industrial PCs with Intel® Duo Core™ Technology to power the most demanding operator interface and SCADA applications. Available with your choice of 15", 17", or 19" LCD displays, the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

### Standard Features

- 15" XGA to 19" SXGA Color TFT LCD Display
- Optional 5-wire Analog Resistive Touchscreen
- Ultra-Thin panel mounting depth, less than 3.0"
- 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)
- DRAM up to 2 GB
- 80 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
- Integral 100-240 VAC power supply
  - 24 VDC optional
- NEMA 4/4x/12 front panel
  - Machined 304 Stainless Steel optional
- VESA mountable (rear surface)
- UL, cUL
- Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G
- FCC & European CE compliant
- RoHS compliant
- Windows® XP Professional (2000 optional)

# Features & Benefits

## Extensive I/O Connectivity



## Easily Removable SATA Hard Drive

- Solid State options
- High Reliability with 5 yr. part warranty options



**Ultra-thin, extremely compact design**

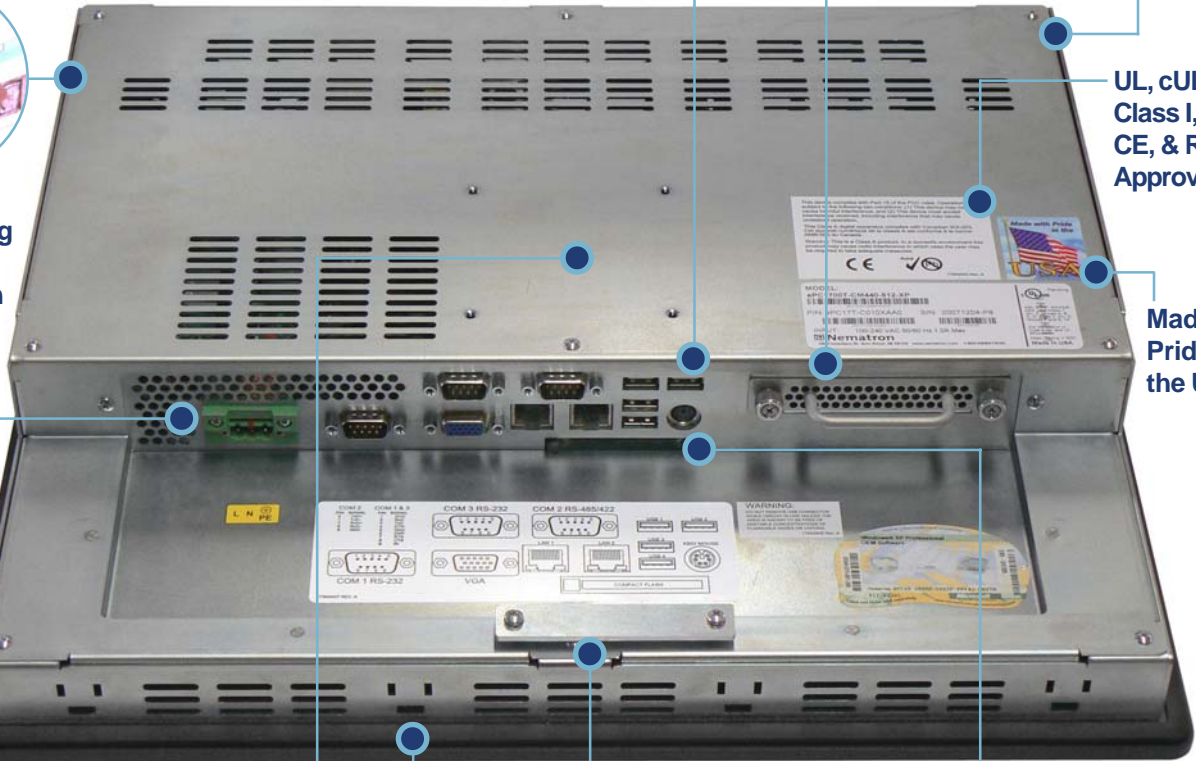


**Optional 5-wire Analog Resistive Touchscreen**

**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

- ePC1500/1700: 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)



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 MHz	2.0 GHz
Front Side Bus	533 MHz	667 MHz
L2 Cache	1MB	2MB

## DISPLAY

	ePC1500	ePC1700	ePC1900
Display Diagonal	15.0" (381.0mm)	17.0" (431.8mm)	19.0" (482.6mm)
Display Sizes (Active Area H x V)	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	XGA, 1024 x 768	SXGA, 1280 x 1024	SXGA, 1280 x 1024
Displayable Colors	16M	16M	16M
Brightness, Typical	250 Nit	300 Nit	300 Nit
Contrast Ratio, Typical	800:1	800:1	1300:1
Horizon/Vertical View Angle, CR>5, Typical	150°/145°	176°/170°	178°/178°
Backlight Life, Typical	50,000 hrs	50,000 hrs	50,000 hrs

## TOUCH SCREEN (all models)

Touch Screen Technology	5-wire Analog Resistive
Interface	Internally via USB
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

## ENVIRONMENTAL

Operating Temperature	0°C to 50°C
Operating Humidity	20% to 80% RH, noncondensing
Operating Shock*	15g peak acceleration, 11msec
Operating Vibration	0.006" peak to peak, 1g max
Operating Altitude	Sea level to 10,000 feet

\* With optional Solid State hard drive.

## PHYSICAL

	ePC1500	ePC1700	ePC1900
Overall Dimensions (H x W x D)	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	2.70" (68.6mm)	2.85" (72.4mm)	3.00" (76.2mm)
Cutout Dimensions (H x W)	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	75mm	75mm	100mm
Weight	14.0 lbs (6.36kg)	19.0 lbs (8.63kg)	22.5 lbs (10.22kg)
Shipping Weight	16.5 lbs (7.5kg)	23.5 lbs (10.67kg)	27.5 lbs (12.49kg)

## 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 Speed	5400 RPM
Hard Drive Size	80 GB Minimum
Solid State Hard Drive	8 GB or 16 GB (optional)
High Reliability Hard Drive	40 GB or 80 GB (optional)

## ELECTRICAL

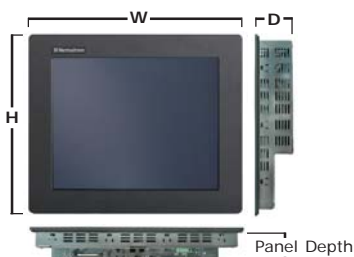
AC Input Voltage	100-240 VAC, 50/60 Hz
AC Input Current	1.0 A Maximum
DC Input Voltage (optional)	18-36 VDC
DC Input Current (optional)	4.5 A Max
Input Power	ePC1500 - 50 W Typical* ePC1700 - 60 W Typical* ePC1900 - 70 W Typical*

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

## 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 61000-3-2: Class A, EN 61000-3-3, EN 61000-6-2, RoHS compliant
Safety Agency Approvals	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



## Cutout Dimensions

Model	Width (W)	Height (H)
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)

## Order Number Generation

**Base unit configuration: ePCx00T-CM440-512-XP**, where **x** = 15, 17, or 19 (for display size), includes a touchscreen, Celeron M 440, 512 MB DRAM, 80 GB SATA Hard Drive, and Windows XP Professional.

**ePC**

**Display Size:**

<b>1500</b>	15.0" XGA LCD
<b>1700</b>	17.0" SXGA LCD
<b>1900</b>	19.0" SXGA LCD

**Input Options:**

<b>T</b>	Touchscreen
<b>blank</b>	None

**Processor:**

<b>CM440</b>	Celeron M 440
<b>T2500</b>	Core Duo T2500

**DRAM Options:**

<b>-512</b>	512 MB DRAM
<b>-1GB</b>	1 GB DRAM
<b>-2GB</b>	2 GB DRAM

**Hard Drive:**

<b>blank</b>	80 GB (minimum) SATA hard drive
<b>-40EX</b>	40 GB Extreme High Reliability SATA hard drive ***
<b>-80EX</b>	80 GB Extreme High Reliability SATA hard drive ***
<b>-8SS</b>	8 GB Solid State SATA hard drive *
<b>-16SS</b>	16 GB Solid State SATA hard drive *

**Operating System:**

<b>-XP</b>	Windows XP Professional
<b>-2K</b>	Windows 2000 Professional **
<b>-NOS</b>	No OS installed

**Power Supply:**

<b>blank</b>	120-240 VAC
<b>-DC</b>	24 Volt DC *

**Front Panel:**

<b>blank</b>	Powder Coated Aluminum
<b>-NL</b>	Powder Coated Aluminum w/o Logo
<b>-SS</b>	Machined 304 Stainless Steel

\* Consult factory for availability and/or additional options

\*\* Windows 2000 Professional will be loaded on the hard drive and the unit will be licensed with a Windows XP Professional COA. Due to Microsoft Licensing regulations backup software can no longer be distributed for this operating system. It is required that when purchasing this option that you already have a valid Windows 2000 installation disk and product key in your possession. Microsoft Downgrade rights allow the legal use of Windows 2000 Professional when a valid Windows XP Professional license is in place.

\*\*\* Extreme High Reliability Hard Drive options carry a 5-year (part only) warranty. Consult factory for availability and/or other options.



### Contact Information

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