



DS ePC-Plus, Rev E

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

ePC-Plus Series

Embedded High Performance Ultra-Thin 15" to 19" TFT Industrial PCs with PCI Expansion and Easily Removable Storage Media



Making A Great Series Even Better...

The Nematron ePC-Plus Series further enhances the ultra-thin, yet powerful, ePC-Series by now providing exciting features including PCI expansion (two 3/4-length cards), two easily removable hard drives and a hot swappable, easily removable DVD-R/W drive. All this is accomplished in a mere 1.3" deeper unit than the successful ePC-Series.

The ePC-Plus offers unparalleled value and superb quality at a competitive price while eliminating the "big, bulky, and expensive" stereotype usually associated with Industrial PCs. All ePC-Plus models are available with 5-wire Analog Resistive touchscreens and NEMA sealed panel mount front panels. Their compact size and thin panel mounted depth of 4.0" (101.6mm) make them ideal for installation in most industrial applications.



Display Sizes Available...



There are currently three sizes in ePC-Plus series - 15", 17", and 19", with more additions to follow.

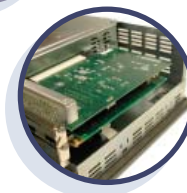
Standard Features Available...



Two Easily Removable Hard Drive Bays



Hot-swappable, Easily Removable DVD-RW drive



PCI Expansion:
Two 3/4 Card Slots



Standard Features

- 15" XGA to 19" SXGA Color TFT LCD Display
- 5-wire Analog Resistive Touchscreen
 - Optional clear Lexan window
- Ultra-Thin 4.3" panel mounting depth
- High Performance / Low Power Processor options
 - Intel® Mobile Celeron® 550 (2.0 GHz, 1 M cache, 533 MHz bus)
 - Intel® Core Duo™ T7500 (2.2 GHz, 4 M cache, 800 MHz bus)
- Intel 40 GB Easily Removable SATA Solid State Drive
 - Optional larger sizes or rotating hard drive
- Second Drive Option
 - Optional RAID Level 1 (mirroring) configuration (Windows XP only)
- Optional easily removable SATA DVD-R/W drive
- 2 GB DRAM (4 GB optional)
- Extensive I/O Connectivity
 - Dual Gigabit (10/100/1000) Ethernet ports
 - 4 USB 2.0 ports
 - 1 RS-485/422/232 serial port (jumper selectable)
 - 2 RS-232 serial ports
 - PS/2 mouse & keyboard ports
 - Additional video port (supports dual video)
- PCI expansion (8.75" max length)
- Integrated 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 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)

Features & Benefits



High Performance / Low Power Processor Options

- Intel® Mobile Celeron® 550 (2.0 GHz, 1 M cache, 533 MHz bus)
- Intel® Core Duo™ T7500 (2.2 GHz, 4 M cache, 800 MHz bus)



VESA Mounting M4 Threads

- All models: 100mm



Powder Coated Aluminum or Stainless Steel Front Panels



5-wire Analog Resistive Touchscreen



Two PCI-card expansion slots - 3/4 length

Made with Pride in the USA

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

Integrated 100-240 VAC or 24 VDC Power Supply



Thin panel mounted depth of 4.3" (109.2mm) (4.45" - ePC1950)



NEMA Panel Mounting via Clips



Easily Removable SATA Solid State Drives

- Optional Rotating Drives
- Optional RAID level 1 (mirroring with XP OS only)¹

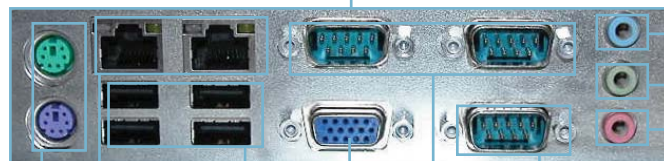


USB, Ethernet, & PS/2 Hold Down



Hot-Swappable, Easily Removable DVD-R/W Drive

Extensive I/O Connectivity



Mouse & Keyboard PS/2 Ports²

Dual Gigabit Ethernet Ports

Four USB 2.0 Ports

Video Port

Two RS-232 Ports

RS-485/422 Port

Line In²

Audio Out²

Microphone²



Standard 2-year warranty

- Covers parts and service



Meet all RoHS Hazardous Safety Standards.

¹ Consult your Nematron Sales Manager or the factory for more information.

² PS/2 and Audio ports not allowed for hazardous locations usage. Setup and maintenance use only.



Technical Specifications

SYSTEM SPECS

Chipset	Intel 965GME + ICH8M	
Video	Integrated in system chipset	
Video RAM	Up to 384MB (System RAM)	
Type & Processor	Intel Mobile Celeron 550	Intel Core Duo T7500
Core Speed	2.0 GHz	2.2 GHz
Front Side Bus	533 MHz	800 MHz
L2 Cache	1MB	4MB
Ethernet Controller	Intel	

DISPLAY

	ePC1550	ePC1750	ePC1950
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" (337.9mm 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	300 Nit	380 Nit	300 Nit
Contrast Ratio, Typical	800:1	1000:1	2000:1
Horizon/Vertical View Angle, CR>5, Typical	150°/145°	170°/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
Resolution	4096 x 4096
Positional Accuracy (Maximum Error)	0.18" (0.19" ePC1950) 4.57mm (4.83mm ePC1950)
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
DRAM Maximum	2 GB DRAM (4 GB max)
Hard Drive Interface	2.5", SATA II
Solid State Drive Size	40 GB (80 and 160 GB optional)
Conventional Hard Drive	250 GB minimum SATA (optional)

ELECTRICAL

AC Input Voltage	100-240 VAC, 47-63 Hz
AC Input Current	2.0 A Maximum
DC Input Voltage (optional)	18-36 VDC
DC Input Current (optional)	7.5 A Maximum
Input Power	ePC1550 - 70 W Typical* ePC1750 - 80 W Typical* ePC1950 - 90 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 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

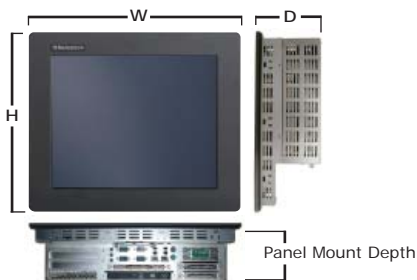
	ePC1550	ePC1750	ePC1950
Overall Dimensions (H x W x D)	12.80" x 15.80" x 4.55" (325.1mm x 401.3mm x 115.6mm)	14.48" x 17.14" x 4.55" (367.8mm x 442.0mm x 115.6mm)	15.70" x 18.66" x 4.7" (398.8mm x 474.0mm x 119.4mm)
Panel Mounting Depth	4.3" (109.2mm)	4.3" (109.2mm)	4.45" (113.0mm)
Cutout Dimensions (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	100mm	100mm	100mm
Weight	20.0 lbs (9.07kg)	24.0 lbs (10.88kg)	28.0 lbs (12.70kg)
Shipping Weight	25.0 lbs (11.33kg)	29.0 lbs (13.15kg)	33.0 lbs (14.96kg)
Option Weight (SS)*	+3.5 lbs (1.58kg)*	+3.75 lbs (1.70kg)*	+4.0 lbs (1.81kg)*

* Additional weight for Stainless Steel option.

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	UL 508 Listed, UL 1604 Listed * cUL Listed CSA 22.2, #142, cUL Listed CSA 22.2, #213 *

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



Cutout Dimensions

Model	Width (W)	Height (H)
ePC1550	15.00" (381.0mm)	12.00" (305.0mm)
ePC1750	16.35" (415.3mm)	13.70" (348.0mm)
ePC1950	17.75" (450.9mm)	14.90" (378.5mm)

