

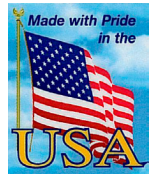


DS ePC-Plus, Rev G

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 8-3/4" max length cards, -12VDC not supported), two easily removable hard drives and a hot swappable, easily removable DVD-R/W drive.

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 4.45" (113.03mm) or



Display Sizes Available...



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

Standard Features Now Available...



Hot-swappable,
Easily Removable
DVD-RW drive



Two Easily
Removable
Hard Drive Bays



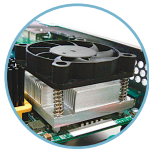
PCI Expansion:
Two 8-3/4"
Max Length
Card Slots
-12VDC not
supported.



Standard Features

- 15" XGA to 19" SXGA Color TFT LED-backlit Display
 - 5-wire Analog Resistive Touchscreen
 - Optional non-Touch clear polycarbonate window
 - Ultra-Thin 4.45" 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 ¹ (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
 - 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 32-bit
 - Windows 7 Professional 32-bit or Windows 7 Ultimate 64-bit optional
 - 2-year Warranty
- ¹ -12VDC not supported.

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

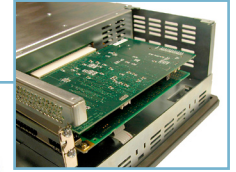
- All models: 100mm



Powder Coated Aluminum or Stainless Steel Front Panels



5-wire Analog Resistive Touchscreen



Two PCI-card expansion slots - 8-3/4" max length

- 12VDC not supported

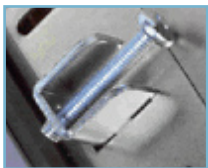
Made with Pride in the USA

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

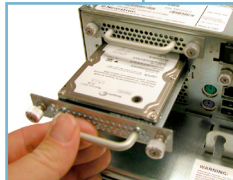
Integrated 100-240 VAC or 24 VDC Power Supply



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



NEMA Panel Mounting via Clips



Easily Removable SATA Solid State Drives

- Optional larger sizes and Hybrid Hard Drive
- Optional RAID level 1 (mirroring with XP OS only)¹

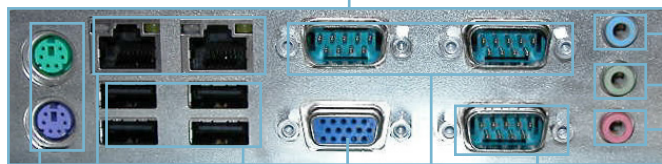


USB, Ethernet, & PS/2 Hold Down



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



Physical	ePC1550	ePC1750	ePC1950	nPC200
Overall Dimensions	12.80" x 15.80" x 4.55"	14.48" x 17.14" x 4.55"	15.70" x 18.66" x 4.70"	9.00" x 15.00" x 3.34"
H x W x D	(325.1mm x 401.3mm x 115.6mm)	(367.8mm x 435.4mm x 115.6mm)	(398.8mm x 474.0mm x 119.4mm)	(228.6mm x 381.0mm x 84.8mm)
w/ Mounting Brackets	-	-	-	9.00" x 16.30" x 3.65" (228.6mm x 414.0mm x 92.71mm)
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)	-
Weight	20.0 lbs (9.07kg)	24.0 lbs (10.88kg)	28.0 lbs (12.70kg)	12.0 lbs (5.4kg)
Shipping Weight	25.0 lbs (11.33kg)	29.0 lbs (13.15kg)	33.0 lbs (14.96kg)	14.0 lbs (6.4kg)
Option Weight (SS)*	+3.5 lbs (1.58kg)*	+3.75 lbs (1.70kg)*	+4.0 lbs (1.81kg)*	-
* Additional weight for Stainless Steel option.				
Display	ePC1550	ePC1750	ePC1950	nPC200
Display Diagonal	15.0" (381.0mm)	17.0" (431.8mm)	19.0" (482.6mm)	-
Display Size	11.97" x 8.98"	13.30" x 10.64"	14.82" x 11.85"	-
Active Area H x V	(304.0mm x 228.1mm)	(337.9mm x 270.3mm)	(376.4mm x 301.0mm)	-
Native Resolution	XGA, 1024 x 768	SXGA, 1280 x 1024	SXGA, 1280 x 1024	-
Brightness / Contrast Ratio	400 nit / 600:1	350 nit / 1000:1	300 nit / 2000:1	-
Horz/Vert Viewing Angle	140°/120°	170°/170°	178°/178°	-
Backlight Life / Typical	50,000 hrs	50,000 hrs	50,000 hrs	-
Typical* Power	ePC1550	ePC1750	ePC1950	nPC200
Input Power	70W	80W	90W	60W
* Typical power is measured per model/per processor and without any additional I/O or expansion inputs. Any additional I/O installed during application can increase this value.				

COMMON SPECS

Processor Options	Mobile Celeron 550	Core 2 Duo T7500
Type & Processor	Intel Mobile Celeron 550 (MC550)	Intel Core 2 Duo T7500 (T7500)
Core Speed /L2 Cache	2.0 GHz / 1MB	2.2 GHz / 4MB
Front Side Bus	533 MHz	800 MHz
Chipset	Intel 965GME + ICH8M	Intel 965GME + ICH8M
Ethernet Controller	Intel 10/100/1000 (2 ports)	Intel 10/100/1000 (2 ports)

Memory & I/O	
DRAM	2GB Single Module (-2GB) (200-pin DDR2 SO-DIMM, non-ECC, unbuffered, 667 MHz); Optional 4GB max (-4GB)
Drive 1	Intel 40GB SATA Solid State Drive (-40SS); 80GB (-80SS), 160GB (-160SS), or 300GB (-300SS) SS Drives optional; 500GB SATA Hybrid Hard Drive ² (-HD)
Drive 2	Intel 40GB SATA Solid State Drive (-40SS); 80GB (-80SS), 160GB (-160SS), or 300GB (-300SS) SS Drives optional; 500GB SATA Hybrid Hard Drive ² (-HD); RAID Level 1 Mirroring (-RAID)
Optical Drive	1 DVD-R/W drive (-DVD); No optical drive installed option (cover plate only) (blank)
Available I/O	(4) USB 2.0, PS/2 Mouse & Keyboard ports ¹ , (2) RS-232, (1) RS-485/422/432 (jumper selectable), (1) Analog Video Port (supports dual video with integrated display), Line In/Audio Out/Mic ports ¹ , (2) Ethernet 10/100/1000 ports
Expansion Capability	(2) 8.75" max length PCI slots (-12VDC not supported)

¹ PS/2 and Audio ports not allowed for hazardous locations usage. Set up and maintenance use only.
² Hybrid Hard Drives have a solid state adaptive memory cache to significantly increase read/write performance. These are rotating hard drives and do not carry any extra part warranty.

Touchscreen	
Technology	5-wire Analog Resistive (T) (Not applicable to the nPC200 model); No Touchscreen option (blank)

Operating System	
Standard OS	Windows XP Professional (-XP); Optional Windows 7 Professional 32-bit (-W7); Windows 7 Ultimate 64-bit (-W7U); or No OS installed (-NOS)

Electrical	
AC Input Voltage/Max Current	100-240 VAC, 47-63 Hz, 2.0 A Maximum (blank)
DC Input Voltage/Max Current	18-36 VDC, 7.5 A Maximum (-DC)

Environmental	Operating	Non-operating
Temperature ³	0°C to 50°C	-20°C to 60°C
Humidity	20% to 80% RH, noncondensing	20% to 80% RH, noncondensing
Shock ⁴	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration (5-2000 Hz) ⁴	.006" peak to peak displacement 1.0g maximum acceleration	.015" peak to peak displacement 2.5g maximum acceleration
Altitude ⁵	Sea level to 10,000 feet	Sea level to 40,000 feet

³ Temperature specifications are for air temp surrounding the unit (i.e. inside any enclosure being utilized).
⁴ Shock & Vibration specifications established with Solid State drives and no rotating media. ⁵ Altitude specification is established by using all internal component specifications.

Agency Approvals	
Front Panel NEMA Rating	NEMA 4/4X/12, IP65
Enclosure Rating ⁶	NEMA 1 (vented, not dust or water proof, for stand-alone VESA mounting - ePC1550 only) (-EN)
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 [*]	UL508 Listed, ANSI/ISA 12.12.01-2012 ⁷ , cUL Listed CSA C22.2, #142, cUL Listed CSA 22.2, #213 (see notes below on model-specific Hazardous Locations approvals)

^{*} ePC-Plus Series: Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F & G; Class III; Temp. Code: T5, when installed on a flat surface of a Type 1, 4, 4X, or 12 enclosure.
^{*} nPC200: Class I Division 2, Groups A, B, C, D; Temp. Code: T5 when installed on a flat surface of a Type 1 enclosure.
^{*} Enclosed units (ePC1550): UL508, cUL Listed CSA C22.2, #142 only; UL1604, cUL CSA C22.2, #213 not applicable to units with -EN option.
⁶ NEMA 1 only, not recommended for environments with high levels of moisture and/or particulate matter.
⁷ ANSI/ISA 12.12.01-2012 is the new standard listed to show Hazardous Locations Agency Approval. UL1604 will be discontinued by July 31, 2012.

Options	
Front Panel Options	Powder-Coated Aluminum Front Panel (blank); with No Logo (-NL); Machined 304 Stainless Steel (-SS); Rackmount Powder Coated Aluminum (-RM) (ePC1950 only) ⁸

⁸ Rackmount front panel is not NEMA 4/4X/12 and the unit is required to be installed on a rack in a Type 1 enclosure.

