



DS ePC-Fanless, Rev C

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ePC Fanless Series

Embedded High Performance Ultra-Thin 12.1" to 19" TFT Industrial PCs without Fans or Rotating Media



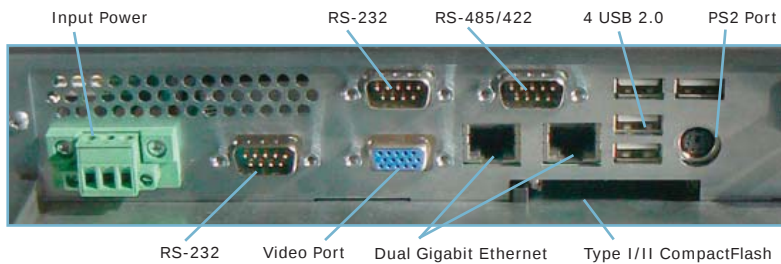
With the Nematron ePC Fanless Series, performance no longer needs to be sacrificed. With an Intel® Atom N270 processor (1.6 GHz) and a high performance SATA Solid State drive, this series provides the performance of most conventional industrial PCs. This Series is the perfect solution for most high-end operator interface or SCADA applications where proprietary solutions do not supply the "open" connectivity desired in most of today's automation applications. The ePC Fanless Series offers all the I/O and features of the standard ePC-Series without the use of fans or rotating media.

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/ Very Low Power Fanless Processor
 - Intel® ATOM N270 (1.6 GHz, 512 K Cache, 533 MHz bus)
- 2 GB DRAM
- Intel 40 GB Easily Removable SATA Solid State Drive
 - Optional larger sizes and Rotating Hard Drive
- 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 I 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

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/ Very Low Power Fanless Processor

- Intel® ATOM N270
(1.6 GHz, 512 K Cache, 533 MHz bus)



Meet all RoHS Hazardous Safety Standards.



Standard 2-year warranty

- Covers parts and service



Technical Specifications

SYSTEM SPECS

Chipset	Intel 945GSE + ICH7M
Video	Integrated in system chipset
Video RAM	8 MB - 128 MB (system RAM)
Type & Processor	Intel ATOM N270
Core Speed	1.6 GHz
Front Side Bus	533 MHz
L2 Cache	512 K
Ethernet Controller	Realtek

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" (337.9mm x 270.3mm)	14.82" x 11.85" (376.3mm x 301.1mm)
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	300 Nit	380 Nit	300 Nit
Contrast Ratio, Typical	500:1	800:1	1000:1	2000:1
Horizon/Vertical View Angle, CR>5, Typical	130°/110°	150°/145°	170°/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	533 MHz
DRAM Maximum	Single Module, 2 GB
Solid State Hard Drive	40 GB (80 GB or 160 GB optional)
Hard Drive Interface	2.5", SATA II
Conventional Hard Drive	250 GB Minimum (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 - 30 W Typical* ePC1700 - 40 W Typical* ePC1900 - 50 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 (5-2000 Hz)	.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

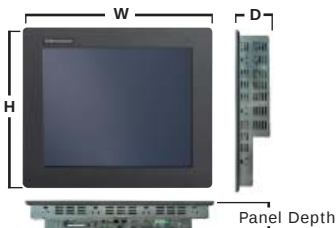
Front Panel NEMA Rating	NEMA 4/4X/12, IP65
FCC	47 CFR, Part 15, Class A
EU CE Marking Compliance	CE, EN 55022: Class A, EN 61000-3-3, EN 61000-6-2, IEC 60950-1, RoHS compliant
Safety Agency Approvals	UL 508 Listed, UL 1604 Listed * cUL Listed CSA 22.2, #142 cUL Listed CSA 22.2, #213 *

* 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.

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 435.4mm 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

ePC1200	ePC1500	ePC1700	ePC1900
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

Order Number Generation

Base unit configuration: ePCx00T-N270-2GB-40SS-XP, where **x** = 12, 15, 17, or 19 (for display size), includes a touchscreen, Intel ATOM N270, 2 GB DRAM, 40 GB SATA Solid State Drive, and Windows XP Professional.

ePC - N270

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

DRAM Options:

-2GB	2 GB DRAM
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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 Seven Professional (32-bit)
-NOS	No OS installed

Power Supply:

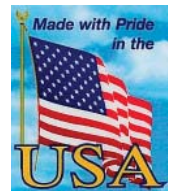
blank	120-240 VAC
-DC	24 Volt DC

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.



Contact Information

Headquarters - Nematron Corporation
 5840 Interface Drive, Suite 100
 Ann Arbor, MI 48103 USA
 Tel: 1.734.214.2000
 Fax: 1.734.994.8074
 Email: info@nematron.com

European Branch Office - Nematron Europe Ltd
 27 Hercules Way, Aeropark
 Farnborough, Hampshire GU14 6UU UK
 Tel: +44 (0)1252 370030
 Fax: +44 (0) 1252 373767
 Email: sales@nematron.net