

Nematron iPC1200 Fanless Industrial PC

12.1" High-Performance, Panel Mount, Touchscreen Computer

UL/cUL Class I Div 2 Approved

Intel® Fanless Processing

LED Backlit Display

Analog Resistive Touchscreen

Solid State Drive Storage

NEMA 4/4X/12, IP66

55°C Operating Temp



Nematron
by COMARK

DS iPC1200-N2800, Rev B



Made in USA

Standard Configuration

- 12.1" SVGA Color TFT LED-backlit displays
- High Performance / Very Low Power Fanless Processor
 - Intel® Dual Core ATOM N2800 (1.86 GHz, 1 MB cache, 4 Threads)
- 5-wire Analog Resistive Touchscreen
 - Optional Non-Touch with clear Lexan window (polycarbonate)
- 4 GB DRAM
- 240 GB Easily Removable SATA Solid State Drive
 - Optional larger SSD sizes and rotating Hybrid Hard Drive
- Ultra-Thin panel mounting depth, less than 3.2"
- Extensive I/O Connectivity
 - Dual Gigabit (10/100/1000) Ethernet ports
 - Two USB 2.0 ports
 - Two USB 3.0 ports
 - One RS-485/422 serial port
 - Two RS-232 serial ports
 - Additional Analog Video port or HDMI port - supports dual video with internal LCD and one port (Optional HDMI to DVI cable available - sold separately)
- 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
- Windows® 7 Professional (32-bit) pre-installed
 - Windows 7 Ultimate (32-bit) or No OS installed optional
- 2-year Warranty

Technical Specifications



Physical

Overall Dimensions	10.475" x 12.9" x 3.42" (266.1mm x 327.7mm x 86.75mm)
Panel Mounting Depth	3.165" (80.4mm)
Cutout Dimensions	9.68" x 12.10" (245.9mm x 307.3mm)
Weight	10.5 lbs (4.76kg)
Shipping Weight	14.0 lbs (6.35kg)
Option Weight (SS)*	+2.5 lbs (1.13kg)*

* Additional weight for Stainless Steel option.

Display

Display Diagonal	12.1" (307.34mm)
Display Size H x V	9.69" x 7.26" (246.0mm x 184.5mm)
Native Resolution	SVGA, 800 x 600
Brightness	450 nit
Contrast Ratio	600:1
Horz/Vert Viewing Angle	140°/120°
Backlight Life / Typical	50,000 hrs
Touchscreen	5-wire Analog Resistive; No Touchscreen option

Processor

¹ Additional Video RAM as needed with DVMT (Dynamic Video Memory Technology).

Type & Processor	ATOM N2800 Intel Dual Core ATOM N2800
Core Speed	1.86 GHz
Threads / Bus/Core	2 / 4
L2 Cache	1MB
Chipset	Intel NM10 Express
Graphics Controller	Integrated Intel GMA 3650 ¹
Ethernet Controller	Intel 82574L Gigabit 10/100/1000 (2 ports)

Storage & Peripherals

Operating System	Windows 7 Professional (32-bit); Optional Windows 7 Ultimate (32-bit), or No OS installed
DRAM	4GB Single Module (204-pin DDR3 SO-DIMM, non-ECC, unbuffered, 1066 MHz)
Standard Storage	240GB SATA Solid State Drive; Optional 480GB or 960GB Solid State Drive, 1TB SATA Hybrid Hard Drive ²
Available I/O	(1) HDMI Port, (2) USB 2.0, (2) USB 3.0, (2) RS-232, (1) RS-485/422, (1) Analog Video Port (supports dual video), (2) Ethernet 10/100/1000 Ports

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.

Power

Input Power	45W
AC Input Voltage	100-240 VAC, 50-60 Hz, 1.0 A Maximum
DC Input Voltage	18-36 VDC, 6.0 A Maximum

Technical Specifications

Environmental

Temperature ³	Operating 0°C to 55°C	Non-operating -20°C to 70°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). Meets US Federal Requirements specified in 46 CFR 111.01-15 (d) for offshore electrical systems.

⁴ Shock & Vibration specifications established with Solid State drives and no rotating media.

⁵ Altitude specification is established by using all internal component specifications.

Compliance

NEMA Rating	NEMA 4/4X/12, IP66
FCC	47 CFR, Part 15, Class A
EU CE Marking	CE, EN 55022: Class A, EN 61000-3-3, EN 61000-6-2, IEC 60950-1
Agency Approvals *	UL508 Listed, ANSI/ISA 12.12.01-2012, cUL Listed CSA C22.2, #142, cUL Listed CSA 22.2, #213

* IPC-Series: 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.

Front Panel

Front Panel Options	Powder-Coated Aluminum Front Panel; optional with No Logo or Machined 304 Stainless Steel
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Features

- Optional 5-wire Analog Resistive Touchscreen
- Integral 100-240 VAC or 24 VDC Power Supply
- UL/cUL 508, Class I Div 2, CE Approvals
- Easily Removable SATA Solid State Drive
- Extensive I/O Connectivity
- USB Retention Bracket
- USB & Ethernet Cord Hold Down
- Panel Mounting via Clips
- HDMI Cable Retention Bracket
- VESA Mounting iPC1200 - 75mm
- Made with Pride in the USA



Standard 2-year warranty
- Covers parts and service



Order Number Generation

Base unit configuration: iPCxx00T-N2800-4GB-240SS-W7, where xx = 12, 15, 17, or 19 (for display size), includes a touch-screen, Intel Dual Core ATOM N2800, 4 GB DRAM, 240 GB SATA Solid State Drive, and Windows 7 Professional (32-bit).



iPC1200		-N2800							
Display Size:	1200	12.1" SVGA LCD							
Input Options:	T blank	Touchscreen None							
DRAM:	-4GB	4 GB DRAM							
Hard Drive:	-240SS -480SS -960SS -HD	240 GB SATA Solid State Drive ¹ 480 GB SATA Solid State Drive ¹ 960 GB SATA Solid State Drive ¹ 1 TB (minimum) SATA Hybrid Hard Drive ²							
Operating System:	-W7 -W7U -NOS	Windows 7 Professional (32-bit) Windows 7 Ultimate (32-bit) ³ No OS installed							
Power Supply:	blank -DC	100-240 VAC 24 Volt DC							
Front Panel:	blank -NL -SS	Powder Coated Aluminum Powder Coated Aluminum w/o Logo Machined 304 Stainless Steel							

¹ Solid State Drive options carry a 5-year (part-only) warranty.

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.

³ 64-bit Windows operating systems are not supported by the Intel ATOM N2800 chipset.