

Nematron iPC1700-IECEEx Fanless Industrial PC

17.0" High-Performance, Panel Mount, Touchscreen Computer

IECEEx / ATEX Zone 2/22 Approved

Intel® Fanless Processing

LED Backlit Display

Analog Resistive Touchscreen

Solid State Drive Storage

NEMA 4/4X/12, IP66

55°C Operating Temp

64-bit Application Support



Nematron
by COMARK

DS iPC1700-N2800-IECEEx, Rev B



Optional
64-Bit
Application
Support



Made in USA

Standard Configuration

- 17.0" SXGA Color TFT LED backlit display
- 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
- 4 GB DRAM
- 240 GB Easily Removable SATA Solid State Drive
 - Optional larger SSD sizes
- 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 isolated 24VDC power supply
- Powder Coated Aluminum Front Panel (optional Stainless Steel)
- NEMA 4/4x/12 front panel
- IECEEx and ATEX Zone 2/22 approved when installed in an ATEX approved enclosure as described in DEMKO 14 ATEX 1374X and UL 16.0058X
- 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) optional
- 2-year Warranty

Technical Specifications



Physical

Overall Dimensions	14.48" x 17.14" x 3.10" (367.8mm x 435.4mm x 78.7mm)
Panel Mounting Depth	2.85" (72.4mm)
Cutout Dimensions	13.70" x 16.35" (348.0mm x 415.3mm)
Weight	19.0 lbs (8.63kg)
Shipping Weight	23.5 lbs (10.67kg)
Option Weight (SS)*	+3.75 lbs (1.70kg)*

* Additional weight for Stainless Steel option.

Display

Display Diagonal	17.0" (431.8mm)
Display Size H x V	13.30" x 10.64" (337.9mm x 270.3mm)
Native Resolution	SXGA, 1280 x 1024
Brightness	350 nit
Contrast Ratio	1000:1
Horz/Vert Viewing Angle	170°/170°
Backlight Life / Typical	50,000 hrs
Touchscreen	5-wire Analog Resistive

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
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

Power

Input Power	55W
DC Input Voltage	18-36 VDC, 6.0 A Maximum

The DEMKO certificate is available online for downloading: http://www.comarkcorp.com/atex/demko_1374x_r2.pdf

The IECEX UL certificate is available online for downloading at: http://www.comarkcorp.com/iecex/ul_16_0058x_r0.pdf

Technical Specifications

Environmental

	Operating 0°C to 55°C	Non-operating -20°C to 70°C
Temperature ²		
Humidity	20% to 80% RH, noncondensing	20% to 80% RH, noncondensing
Shock ³	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration (5-2000 Hz) ³	.006" peak to peak displacement, 1.0g maximum acceleration	.015" peak to peak displacement, 2.5g maximum acceleration
Altitude ⁴	Sea level to 10,000 feet	Sea level to 40,000 feet

² 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.

³ Shock & Vibration specifications established with Solid State drives and no rotating media.

⁴ 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
IECEX Compliance	UL 16.0058X
ATEX Compliance	ATEX Zone 2/22 approved when installed in an approved enclosure as described in the certificate DEMKO 14 ATEX 1374X
Agency Approvals *	UL508 Listed, ANSI/ISA 12.12.01-2012, cUL Listed CSA C22.2, #142, cUL Listed CSA 22.2, #213
	* iPC-Series (w/ N2800): 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; with No Logo; Machined 304 Stainless Steel
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1. 5-wire Analog Resistive Touchscreen
2. Integrated Isolated 24 VDC Power Supply
3. IECEx, ATEX ZONE 2/22, UL/cUL 508, Class I Div 2, CE Approval Label
4. Easily Removable SATA Solid State Drive
5. Extensive I/O Connectivity
6. USB Retention Bracket
7. USB & Ethernet Cord Hold Down
8. Panel Mounting via Clips
9. HDMI Cable Retention Bracket
10. VESA Mounting iPC1700 - 75mm
11. 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-DC-IECEX, where xx = 12, 15, 17, or 19 (for display size), includes a touchscreen, Intel ATOM N2800 processor, 4 GB DRAM, 240 GB SATA Solid State Drive, isolated 24 VDC power supply, and Windows 7 Professional (32-bit).



	iPC1700	T	-N2800		-DC		-IECEX
Display Size:	1700	17.0" SXGA LCD					
Input Options:	T	Touchscreen					
DRAM:	-4GB	4 GB DRAM					
Hard Drive:	-240SS -480SS -960SS	240 GB SATA Solid State Drive ¹ 480 GB SATA Solid State Drive ¹ 960 GB SATA Solid State Drive ¹					
Operating System:	-W7 -W7U -NOS	Windows 7 Professional (32-bit) Windows 7 Ultimate (32-bit) No OS installed					
Power Supply:	-DC	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.