

Nematron iPC1500-IECEEx Industrial PC

15.0" High-Performance, Panel Mount, Touchscreen Computer

IECEEx / ATEX Zone 2/22 Approved

Intel® 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 iPC1500-IECEEx, Rev B



Optional
64-Bit
Application
Support



Made in USA

Standard Configuration

- 15.0" XGA Color TFT LED backlit display
- High Performance / Low Power Processor options to choose from:
 - Intel® Dual Core Celeron® P4500 (1.86 GHz, 2 M cache, 2 Threads)
 - Intel® i5 Dual Core 520M (2.4 GHz, 3 M cache, 4 Threads)
 - Intel® i7 Dual Core 620M (2.66 GHz, 4 M 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
 - 6 USB 2.0 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 24 VDC 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 (64-bit) or No OS installed optional
- 2-year Warranty

Technical Specifications



Physical

Overall Dimensions	12.80" x 15.80" x 2.95" (325.1mm x 401.3mm x 74.9mm)
Panel Mounting Depth	2.70" (68.6mm)
Cutout Dimensions	12.00" x 15.00" (305.0mm x 381.0mm)
Weight	15.0 lbs (6.8kg)
Shipping Weight	19.5 lbs (8.84kg)
Option Weight (SS)*	+3.5 lbs (1.58kg)*

* Additional weight for Stainless Steel option.

Display

Display Diagonal	15.0" (381.0mm)
Display Size H x V	11.97" x 8.98" (304.0mm x 228.1mm)
Native Resolution	XGA, 1024 x 768
Brightness	400 nit
Contrast Ratio	600:1
Horz/Vert Viewing Angle	140°/120°
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	Celeron P4500 Intel Dual Core Celeron P4500	i5 Dual Core Intel i5 Dual Core 520M	i7 Dual Core Intel i7 Dual Core 620M
Core Speed	1.86 GHz	2.4 GHz	2.66 GHz
Threads / Bus/Core	2 / 14	4 / 18	4 / 20
L2 Cache	2MB	4MB	4MB
Chipset	Intel HM55 (BD82HM55 PCH)	Intel HM55 (BD82HM55 PCH)	Intel HM55 (BD82HM55 PCH)
Video RAM	64 MB System RAM Base ¹	64 MB System RAM Base ¹	64 MB System RAM Base ¹
Ethernet Controller	Realtek 10/100/1000 (2 ports)	Realtek 10/100/1000 (2 ports)	Realtek 10/100/1000 (2 ports)

Storage & Peripherals

Operating System	Windows 7 Professional (32-bit); Optional Windows 7 Ultimate (64-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, (6) USB 2.0, (2) RS-232, (1) RS-485/422, (1) Analog Video Port (supports dual video with integrated display), (2) Ethernet 10/100/1000 Ports

Power

Input Power	80W
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

Temperature ²	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 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

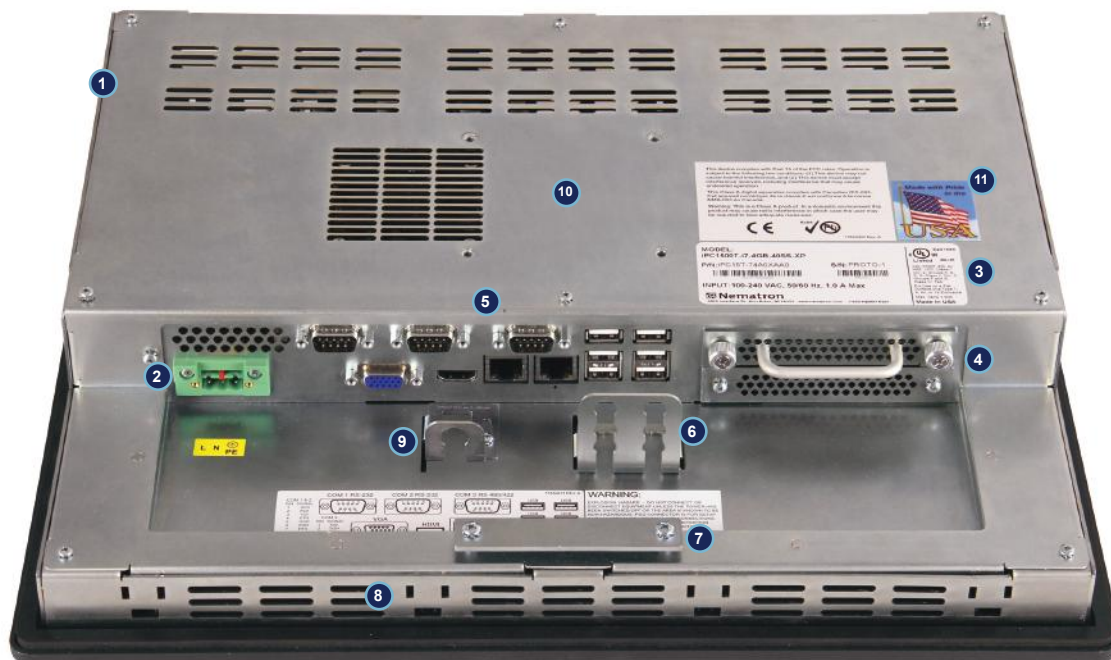
* IPC-Series: Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F & G; Class III; Temp. Code: T6, when installed on a flat surface of a Type 1, 4, 4X, or 12 enclosure.

Front Panel

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

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 iPC1500 - 75mm
11. Made with Pride in the USA



Standard 2-year warranty
- Covers parts and service



Order Number Generation

Base unit configuration: iPCxx00T-CP45-4GB-240SS-W7-DC-IECEEx, where xx = 12, 15, 17, or 19 (for display size), includes a touchscreen, Intel Celeron P4500 processor, 4 GB DRAM, 240 GB SATA Solid State Drive, isolated 24 VDC power supply, and Windows 7 Professional (32-bit).



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Display Size:	1500	15.0" XGA LCD						
Input:	T	Touchscreen						
Processor:	CP45 i5 i7	Intel Celeron P4500 Intel i5 520M Intel i7 620M						
DRAM:	-4GB	4 GB DRAM						
Hard Drive:	-240SS -480SS -960SS	240 GB SATA Solid State Drive [†] 480 GB SATA Solid State Drive [†] 960 GB SATA Solid State Drive [†]						
Operating System:	-W7 -W7U -NOS	Windows 7 Professional (32-bit) Windows 7 Ultimate (64-bit) No OS installed						
Power Supply:	-DC	Isolated 24 Volt DC						
Front Panel:	blank -NL -SS	Powder Coated Aluminum Powder Coated Aluminum w/o Logo Machined 304 Stainless Steel						

[†] Solid State Drive options carry a 5-year (part-only) warranty.