

Tackle Your Industrial PC Needs with A Proven Brand.

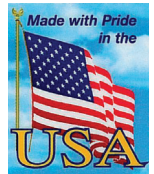


DS iPC-Series, Rev A2

For more information or to request a quote, visit us online at www.nematron.com

iPC-Series **NEW!**

Embedded High Performance Ultra-Thin 12.1" to 19" TFT Industrial PCs



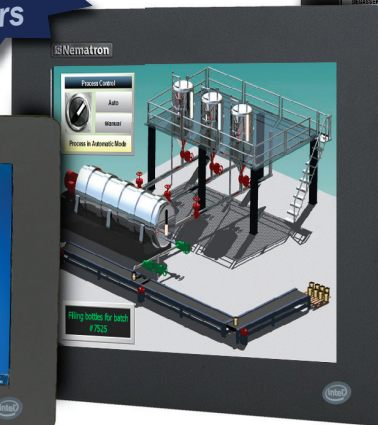
Now with Intel i5 & i7 Processors



iPC1900
SXGA



iPC1200
SVGA



iPC1500
XGA



iPC1700
SXGA



nPC300
Node

Nematron is putting the "i" in "iPC" with the iPC-Series, now with Intel® i-Series Core™ embedded processors. The innovative iPC-Series continues to change the definition of traditional Industrial PCs, most notably by offering the latest in embedded processing power with the following CPU options: i7 Dual Core 620M, i5 Dual Core 520M, and Dual Core Celeron P4500.

Optional
64-Bit
Application
Support

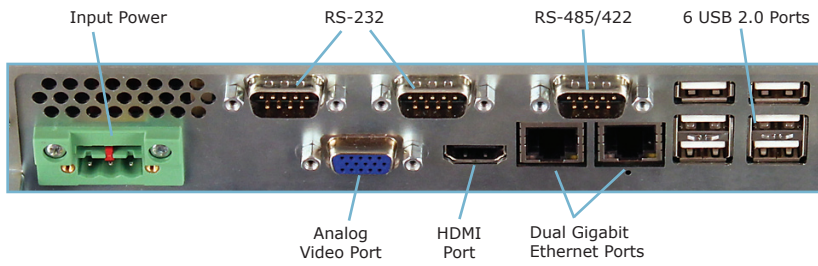
Standard Features

- 12.1" SVGA to 19" SXGA Color TFT LED backlit displays ¹
- 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
 - Optional clear Lexan window ¹
- 2 GB DRAM (4 GB Optional)
- Intel 40 GB Easily Removable SATA Solid State Drive
 - Optional larger sizes and rotating HD
- 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 100-240 VAC power supply
 - 24 VDC optional
- Powder Coated Aluminum Front Panel (optional Stainless Steel) ¹
- NEMA 4/4x/12 front panel ¹
- Optional Rack Mount Front Panel (iPC1900 only) ¹
- 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® 7 Professional (32-bit) pre-installed
 - Windows XP Professional (32-bit) or Windows 7 Ultimate (64-bit) optional
- 2-year Warranty

¹ Not applicable on the nPC300 Node Industrial PC.

Features & Benefits

Extensive I/O Connectivity

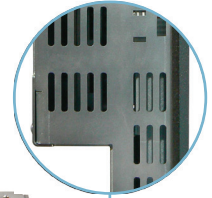


Easily Removable SATA Solid State Drive

- Larger Sizes or Conventional Hard Drive optional



Ultra-thin, extremely compact design



Optional 5-wire Analog Resistive Touchscreen

Made with Pride in the USA

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

Integral 100-240 VAC or 24 VDC Power Supply

USB Retention Bracket



Powder Coated Aluminum or Stainless Steel Front Panels



NEMA Panel Mounting via Clips



USB & Ethernet Cord Hold Down

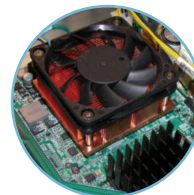


VESA Mounting

- iPC1200/1500/1700: 75mm
- iPC1900: 100mm

HDMI Cable Retention Bracket

- Optional HDMI to DVI cable sold separately



High Performance / Low Power Processor Options

- 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)



Meet all RoHS Hazardous Safety Standards.



Standard 2-year warranty

- Covers parts and service



Technical Specifications



Physical	iPC1200	iPC1500	iPC1700	iPC1900	nPC300
Overall Dimensions <i>H x W x D</i>	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)	7.750" x 12.00" x 2.15" (196.8mm x 304.8mm x 54.61mm)
Overall Dimensions w/ Mounting Brackets	-	-	-	-	7.750" x 13.30" x 2.45" (196.8mm x 337.82mm x 62.23mm)
Panel Mounting Depth	3.165" (80.4mm)	2.70" (68.6mm)	2.85" (72.4mm)	3.00" (76.2mm)	-
Cutout Dimensions <i>H x W</i>	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)	-
Weight	10.5 lbs (4.76kg)	15.0 lbs (6.80kg)	19.0 lbs (8.63kg)	22.5 lbs (10.22kg)	6.5 lbs (2.9 kg)
Shipping Weight	14.0 lbs (6.35kg)	19.5 lbs (8.84kg)	23.5 lbs (10.67kg)	27.5 lbs (12.49kg)	8.0 lbs (3.6 kg)
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.					
Display	iPC1200	iPC1500	iPC1700	iPC1900	nPC300
Display Diagonal	12.1" (307.34mm)	15.0" (381.0mm)	17.0" (431.8mm)	19.0" (482.6mm)	-
Display Size <i>Active Area H x V</i>	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	-
Brightness / Contrast Ratio	450 nit / 600:1	400 nit / 600:1	350 nit / 1000:1	300 nit / 2000:1	-
Horz/Vert Viewing Angle	140°/120°	140°/120°	170°/170°	178°/178°	-
Backlight Life / Typical	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs	-
Typical* Power	iPC1200	iPC1500	iPC1700	iPC1900	nPC300
Input Power	70W	80W	85W	90W	60W
* Typical power is measured with all possible I/O ports functioning.					

COMMON SPECS

Processor Options	Celeron P4500	i5 Dual Core	i7 Dual Core
Type & Processor	Intel Dual Core Celeron P4500	Intel i5 Dual Core 520M	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)
¹ Additional Video RAM as needed with DVMT (Dynamic Video Memory Technology).			

Memory & I/O	
DRAM	2GB Single Module (204-pin DDR3 SO-DIMM, non-ECC, unbuffered, 1066 MHz); Optional 4GB max
Standard Storage	Intel 40GB SATA Solid State Drive
Optional Storage	80GB, 160GB or 300GB Solid State Drive; 250GB SATA Conventional Hard 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), (2) Ethernet 10/100/1000 Ports

Touchscreen	
Technology	5-wire Analog Resistive (Not applicable on the nPC300 model); No Touchscreen option

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

Electrical	
AC Input Voltage/Max Current	100-240 VAC, 50-60 Hz, 1.0 A Maximum
DC Input Voltage/Max Current	18-36 VDC, 6.0 A Maximum

Environmental	Operating	Non-operating
Temperature ² / Humidity	0°C to 50°C / 20% to 80% RH, noncondensing	-20°C to 60°C / 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).		
³ Shock & Vibration specifications established with Solid State drives and no rotating media. ⁴ Altitude specification is established by using all internal component specifications.		

Agency Approvals	
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 [*]	UL508 Listed, ANSI/ISA 12.12.01-2012 ⁵ , cUL Listed CSA C22.2, #142, cUL Listed CSA 22.2, #213 (see notes below on model-specific HazLoc approvals)
* 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.	
* nPC300: Class I Division 2, Groups A, B, C, D; Temp. Code: T6, when installed on a flat surface of a Type 1 enclosure.	
⁵ ANSI/ISA 12.12.01-2012 is the new standard listed to show Hazardous Locations Agency Approval. UL1604 has been discontinued as of July 31, 2012.	

Options	
Front Panel Options	Powder-Coated Aluminum Front Panel; with No Logo; Machined 304 Stainless Steel; Rackmount Powder Coated Aluminum (iPC1900 only) ⁶
⁶ 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.	

Order Number Generation

Base unit configuration: iPCxx00T-CP45-2GB-40SS-W7, where xx = 12, 15, 17, or 19 (for display size), includes a touchscreen, Intel Celeron P4500, 2 GB DRAM, 40 GB SATA Solid State Drive, and Windows 7 Professional (32-bit).



iPC	
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
Processor:	
CP45	Intel Celeron P4500
i5	Intel i5 520M
i7	Intel i7 620M
DRAM:	
-2GB	2 GB DRAM
-4GB	4 GB DRAM
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
-300SS	300 GB SATA Solid State Drive ¹
-HD	250 GB (minimum) SATA Hard Drive
Operating System:	
-W7	Windows 7 Professional (32-bit)
-XP	Windows XP Professional (32-bit)
-W7U	Windows 7 Ultimate (64-bit)
-NOS	No OS installed
Power Supply:	
blank	100-240 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 (iPC1900 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.

Base unit configuration: nPC300-CP45-2GB-40SS-W7, includes Intel Celeron P4500, 2 GB DRAM, 40 GB SATA Solid State Drive and Windows 7 Professional (32-bit).



NEW!

nPC300 -	
Processor:	
CP45	Intel Celeron P4500
i5	Intel i5 520M
i7	Intel i7 620M
DRAM:	
-2GB	2 GB DRAM
-4GB	4 GB DRAM
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
-300SS	300 GB SATA Solid State Drive ¹
-HD	250 GB (minimum) SATA Hard Drive
Operating System:	
-W7	Windows 7 Professional (32-bit)
-XP	Windows XP Professional (32-bit)
-W7U	Windows 7 Ultimate (64-bit)
-NOS	No OS installed
Power Supply:	
blank	100-240 VAC
-DC	24 Volt DC

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

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

