

Nematron nPC10 Lite Series Industrial Node PC

Non-Display, High Performance, Fanless Node PC

Intel® Fanless Processing

mSATA Solid State Drive Storage

UL/cUL Ordinary Locations

Windows 7 or 10 OS



Nematron
by COMARK

DS nPC10 Lite, Rev B



Made in USA

Overview

The nPC10 “Lite” Node PC is Nematron’s economy line of industrial PCs, equipped with standard features to handle applications where a full offering of traditional features are not required. The “Lite” Series is offered at a significantly lower cost than the popular iPC-Series, while still providing the reliability, ruggedness and support that come with

Nematron products. The nPC10 “Lite” Node PC comes standard with a Fanless Intel Quad Core Celeron N2930 fanless CPU and mSATA solid state drive storage (replaces traditional hard drive), eliminating many of the reliability issues associated with industrial PCs due to rotating media or CPU cooling fans.

Standard Configuration

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| <ul style="list-style-type: none"> ▪ High Performance/Very Low Power Fanless Processor <ul style="list-style-type: none"> - Intel® Quad Core Celeron N2930 (1.83 GHz (bursts to 2.16 GHz), 2 MB Cache, 4 Cores, 4 Threads) ▪ 4 GB DRAM (8 GB optional) ▪ Internal onboard 250 GB mSATA Solid State Drive (500 GB optional) ▪ I/O Connectivity <ul style="list-style-type: none"> - One 10/100/1000 Ethernet port - Two USB 2.0 ports - Two USB 3.0 Ports | <ul style="list-style-type: none"> - One RS-232 serial port - Audio in/out - Additional Analog and HDMI ports (supports dual video modes with integrated LCD) ▪ External 100-240 VAC power supply included <ul style="list-style-type: none"> - Regulated 12 VDC, 1.9 A Max output (can also be powered by other Listed ITE power supplies or Class 2 power sources) | <ul style="list-style-type: none"> ▪ 0° to 50°C operational temperature rating ▪ UL and cUL Ordinary Locations Listed ▪ FCC & CE compliant ▪ Windows® 7 Professional 32-bit <ul style="list-style-type: none"> - Windows 7 Ultimate 64-bit, Windows 10 Enterprise IoT (32-bit or 64-bit) optional ▪ 2-year Warranty |
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Technical Specifications



Physical

Overall Dimensions	7.750" x 7.750" x 1.130" (196.8mm x 196.8mm x 33.02mm)
Overall Dimensions w/ Mounting Brackets	7.750" x 9.06" x 1.61" (196.8mm x 196.8mm x 40.89mm)
Weight	2.7 lbs (1.2 kg)
Shipping Weight	4.2 lbs (1.9 kg)

Processor

Type & Processor	Celeron N2930 Intel Quad Core Celeron N2930 (fanless)
Core Speed	1.83 GHz (with bursts up to 2.16 GHz)
Threads / Core	4 / 4
L2 Cache	2MB
Chipset	Intel Bay Trail-M
Graphics Controller	Intel Gen7 Graphics DX 11, OGL3.2
Ethernet Controller	Realtek Gigabit 10/100/1000 (1 port)

Storage & Peripherals

Operating System	Windows 7 Professional (32-bit); optional Windows 7 Ultimate (64-bit), Windows 10 Enterprise IoT (32-bit or 64-bit)
DRAM	4GB Single Module (204-pin DDR3 SO-DIMM, non-ECC, unbuffered, 1066 MHz); Optional 8GB ¹ max
Standard Storage	250GB mSATA; Optional 500GB mSATA
Available I/O	(1) HDMI Port, (2) USB 2.0, (2) USB 3.0, (1) RS-232, (1) Analog Video Port (supports dual video), (1) Ethernet 10/100/1000 Port, (2) Audio In/Out Ports

¹ 8GB DRAM only available when configured with Windows 7 Ultimate 64-bit or Windows 10 Enterprise IoT 64-bit operating systems.

Power

Input Power	20W
AC Power Supply	100-240 VAC, 47-63 Hz, 1.1 A Maximum
DC Input Voltage	12 VDC, Regulated \pm 5%, 1.9 A Maximum ²

² Output of included AC power supply. Can also be powered by other Listed ITE power supply or Class 2 Power sources.

Technical Specifications

Environmental

	Operating	Non-operating
Temperature ²	0°C to 50°C	-20°C to 60°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

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, cUL Listed CSA C22.2, #142

Features

1. Power Input: 12VDC input supplied by Listed ITE power supply or Class 2 source
2. UL 508/cUL Ordinary Locations only, CE Approval Label
3. DIN Rail Mountable bracket (sold separately)
4. I/O Connectivity
5. Mounting via Wall or Shelf Brackets
6. Made with Pride in the USA



DIN Rail Mounting Bracket (DIN Rail kit sold separately)

- Mounting kit includes DIN Rail bracket that mounts to 75mm or 100mm VESA mounting pattern on rear of M-Series monitors
- Also allows nPC10 to be mounted to any DIN Rail.

(MTG-DIN-nPC10)



Standard 2-year warranty
- Covers parts and service

Order Number Generation

Base unit configuration: nPC10-N2930-4GB-250mS-W7, includes Intel Quad Core Celeron N2930, 4 GB DRAM, 250 GB On-board mSATA Storage, Windows 7 Professional (32-bit), and External AC Power Supply.



nPC10-N2930

Storage:		
-4GB	4 GB DRAM	
-8GB	8 GB DRAM ¹	
Storage:		
-250mS	250 GB On-board mSATA Storage	
-500mS	500 GB On-board mSATA Storage	
Operating System:		
-W7	Windows 7 Professional (32-bit)	
-W7U	Windows 7 Ultimate (64-bit)	
-W1032	Windows 10 Enterprise IoT (32-bit)	
-W1064	Windows 10 Enterprise IoT (64-bit)	

¹ 8 GB DRAM only available when configured with Windows 7 Ultimate (-W7U) 64-bit or Windows 10 Enterprise IoT (-W1064) 64-bit operating systems.