

nPC Series

Rugged High Performance "Node" Industrial PCs Without Displays



nPC100



nPC200

The Nematron nPC Series of high performance industrial computers are designed for applications where the computer must be separate or remote from the monitor. With extensive I/O and available PCI expansion, the nPC100 and nPC200 models are ideal for most industrial applications. Their compact profiles and high performance make these units ideal for many space limited applications.

nPC100 Standard Features

- 3 High Performance/Low Power Processor Options to choose from:
 - Intel ATOM N270 Fanless (1.66 GHz, 512K cache, 533 MHz bus)
 - Intel Celeron M 440 (1.86 GHz, 1 M cache, 533 MHz bus)
 - Intel Core Duo T2500 (2.0 GHz, 2 M cache, 667 MHz bus)
- 2 GB DRAM
- On board Video with Analog VGA port
- Extensive Connectivity
 - Dual Gigabit (10/100/1000) Ethernet ports
 - One RS-422/485 serial port (jumper selectable)
 - Two RS-232 serial ports
 - 4 USB 2.0 ports
 - PS/2 port (mouse & keyboard splitter supplied)
 - Rear Accessible Type I/II CompactFlash socket
- Intel 40 GB SATA Solid State drive (Easily Removable)
 - Optional larger sizes or Rotating hard drive
- Integrated 100-240 AC Power Supply (optional 24 VDC)
- UL, cUL, RoHS & CE
- Class I Division 2 Approved when installed in a NEMA enclosure
- Windows XP Professional pre-installed (Windows 7 Professional optional)
- 2-year Warranty

nPC200 Standard Features

- Rugged industrial "Node" PC with PCI expansion
- 2 High Performance/Low Power Processor Options to choose from:
 - Intel Mobile Celeron 550 (2.0 GHz, 1 M cache, 533 MHz bus)
 - Intel Core 2 Duo T7500 (2.2 GHz, 4 M cache, 800 MHz bus)
- 2 GB DRAM (4 GB max)
- 2 PCI expansion slots (8.75" max length)
- On board Video with Analog VGA port
- Extensive Connectivity
 - Dual Gigabit (10/100/1000) Ethernet ports
 - One RS-422/485 serial port (jumper selectable)
 - Two RS-232 serial ports
 - 4 USB 2.0 ports
 - PS/2 mouse & keyboard ports
- Intel 40 GB SATA Solid State Drive (Easily Removable)
 - Optional larger sizes or rotating hard drive
- Second Drive Option
 - Optional RAID Level 1 (mirroring) configuration (Windows XP only)
- Easily Removable SATA DVD-R/W drive
- Integrated 100-240 AC Power Supply (optional 24 VDC)
- UL, cUL, RoHS & CE
- Class I Division 2 Approved when installed in a NEMA enclosure
- Windows XP Professional pre-installed (Windows 7 Professional optional)
- 2-year Warranty

nPC100 - Features & Benefits



nPC100



High Performance/ Very Low Power Fanless Processor

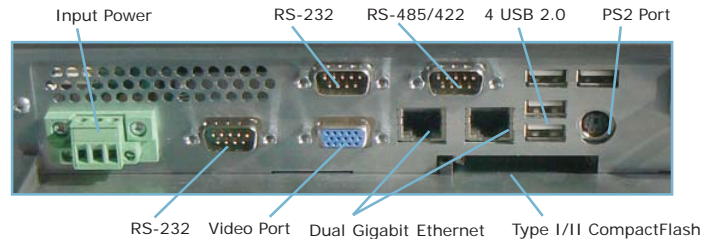
- Intel® ATOM N270 (1.6 GHz, 512 K Cache, 533 MHz bus)



Easily Removable SATA Solid State Drive

- Larger size options or rotating hard drive

Extensive I/O Connectivity



CompactFlash to replace CD-ROM and floppy drives



USB Retention Bracket



High Performance / Low Power Processor Options

- Intel® Celeron® M 440 (1.86 GHz, 1 M cache, 533 MHz bus)
- Intel® Core Duo™ T2500 (2.0 GHz, 2 M cache, 667 MHz bus)

nPC200 - Features & Benefits

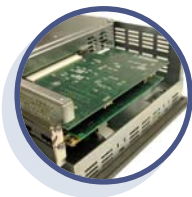


nPC200



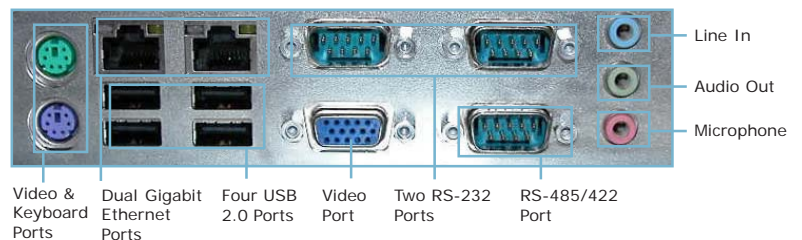
High Performance / Low Power Processor Options

- Intel® Mobile Celeron® 550 (2.0 GHz, 1 M cache, 533 MHz bus)
- Intel® Core 2 Duo™ T7500 (2.2 GHz, 4 M cache, 800 MHz bus)



PCI Expansion: Two Card Slots 8.75" max length

Extensive I/O Connectivity



USB Retention Bracket



Two Easily Removable Drive Bays

- Solid State Drives or Rotating Hard Drive Options



Hot-swappable, Easily Removable DVD-RW drive

Technical Specifications

SYSTEM SPECS

	nPC100			nPC200	
Video	Integrated in system chipset			Integrated in system chipset	
Video RAM	8 MB - 128 MB (system RAM)			Up to 384MB (System RAM)	
Processor Option	N270	CM440	T2500	MC550	T7500
Intel Type	ATOM N270	Celeron M 440	Core Duo T2500	Mobile Celeron 550	Core 2 Duo T7500
Core Speed	1.6 GHz	1.86 GHz	2.0 GHz	2.0 GHz	2.2 GHz
Front Side Bus	533 MHz	533 MHz	667 MHz	533 MHz	800 MHz
L2 Cache	512K	1MB	2MB	1MB	4MB
Chipset	Intel 945GSE+ICH7M	Intel 945GME+ICH7M	Intel 945GME+ICH7M	Intel 965GME+ICH8M	Intel 965GME+ICH8M
Ethernet Controller	Realtek	Broadcom	Broadcom	Intel	Intel

MEMORY

DRAM Type	200-pin DDR2 SO-DIMM, non-ECC, un-buffered			200-pin DDR2 SO-DIMM, non-ECC, un-buffered	
DRAM Bus Speed	667 MHz (CM440 - 533 MHz)			667 MHz	
DRAM Maximum	Single Module, 2 GB			2 GB (4 GB max)	
Hard Drive Type	2.5", SATA II			2.5", SATA II	
Solid State Drive Size	40 GB (80 and 160 GB optional)			40 GB (80 and 160 GB optional)	
Hard Drive Option	250 GB SATA (optional)			250 GB SATA (optional)	

ELECTRICAL

Input Power	w/ N270: 20 Watts Typical	w/ CM440: 40 Watts Typical	w/ T2500: 40 Watts Typical	w/ MC550: 60 Watts Typical	w/ T7500: 60 Watts Typical
AC Input Voltage	100-240 VAC, 50/60 Hz			100-240 VAC, 50/60 Hz	
AC Input Current	1.0A Max			2.0A Max	
DC Input Voltage (optional)	18-36 VDC, 4.5A Max			18-36 VDC, 7.5A Max	

* Typical Power is measured without any additional I/O or expansion options. Any additional I/O installed during application can increase this value.

ENVIRONMENTAL

	Operating	Non-operating
Temp.	0°C to 50°C	-20°C to 60°C
Humidity	20% to 80% RH, noncondensing	
Shock ¹	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration ¹	.006" peak to peak displacement (5-2000 Hz) 1.0g maximum acceleration	.015" peak to peak displacement 2.5g maximum acceleration
Altitude ²	Sea level to 10,000 feet	Sea level to 40,000 feet

¹ Shock & Vibration specifications established with Solid State drives and no rotating media.

² Altitude specification is established by using all internal component specifications.

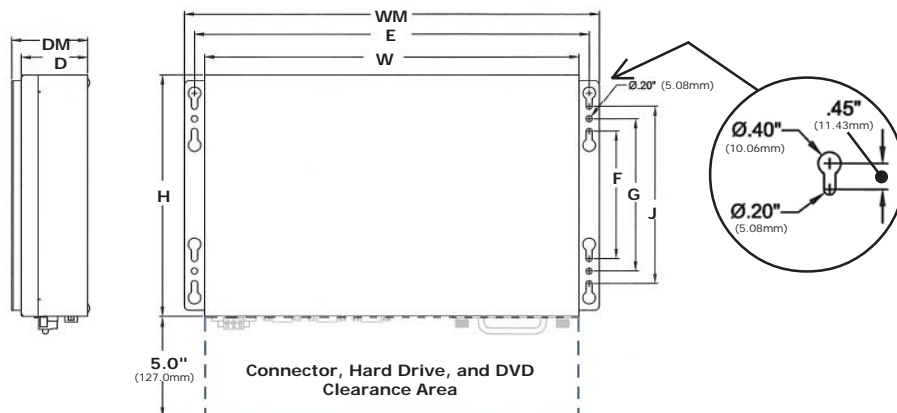
AGENCY

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	UL 508 Listed, UL 1604 Listed *, cUL Listed CSA 22.2, #142, cUL Listed CSA 22.2, #213 *

* Class I Division 2, Groups A, B, C, D; Temp. Code: T4A, when installed on a flat surface of a Type 1 enclosure.

PHYSICAL

Overall Dimensions (H x W x D)	7.750" x 12.00" x 2.15" (196.8mm x 304.8mm x 54.61mm)	9.00" x 15.00" x 3.34" (228.6mm x 381.0mm x 84.8mm)
Overall Dimensions (with mounting brackets) (H x WM x DM)	7.750" x 13.30" x 2.45" (196.8mm x 337.82mm x 62.23mm)	9.00" x 16.30" x 3.65" (228.6mm x 414.0mm x 92.71mm)
Weight	6.5 lbs (2.9 kg)	12.0 lbs (5.4 kg)
Shipping Weight	8.0 lbs (3.6 kg)	14.0 lbs (6.4kg)



MOUNTING BRACKET DIMENSIONS

	nPC100	nPC200
E	12.65" (321.31mm)	15.65" (397.51mm)
F	4.075" (103.5mm)	5.20" (132.08mm)
G	4.875" (123.82mm)	6.00" (152.39mm)
J	5.675" (144.14mm)	6.80" (172.72mm)

Order Number Generation

Base unit configuration: **nPC100-CM440-2GB-XP**, Celeron M 440, 2 GB DRAM, 40 GB SATA Solid State Drive, and Windows XP Pro.

nPC100-

Processor Option:	_____	_____	_____	_____	_____
CM440	Celeron M 440				
N270	ATOM N270 (fanless)				
T2500	Core Duo T2500				
DRAM Options:	_____	_____	_____	_____	_____
-2GB	2 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				
-HD	250 GB (minimum) SATA hard drive				
Operating System:	_____	_____	_____	_____	_____
-XP	Windows XP Professional				
-W7	Windows 7 Professional (32-bit)				
-NOS	No OS installed				
Power Supply Option:	_____	_____	_____	_____	_____
blank	120-240 VAC				
-DC	24 Volt DC				

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

Base unit configuration: **nPC200-MC550-2GB-HD-DVD-XP**, Mobile Celeron 550, 2 GB DRAM, 40 GB SATA Solid State Drive, DVD-RW, & Windows XP Pro.

nPC200-

Processor Option:	_____	_____	_____	_____	_____	_____	_____
MC550	Intel Mobile Celeron 550						
T7500	Intel Core 2 Duo T7500						
DRAM Options:	_____	_____	_____	_____	_____	_____	_____
-2GB	2 GB DRAM						
-4GB	4 GB DRAM						
Drive 1:	_____	_____	_____	_____	_____	_____	_____
-40SS	40 GB SATA Solid State Drive ¹						
-80SS	80 GB SATA Solid State Drive ¹						
-160SS	160 GB SATA Solid State Drive ¹						
-HD	250 GB (minimum) SATA hard drive						
Drive 2: (see note 2)	_____	_____	_____	_____	_____	_____	_____
-40SS	40 GB SATA Solid State Drive ¹						
-80SS	80 GB SATA Solid State Drive ¹						
-160SS	160 GB SATA Solid State Drive ¹						
-HD	250 GB (minimum) SATA hard drive						
Optical Drive:	_____	_____	_____	_____	_____	_____	_____
-DVD	SATA DVD-R/W Drive installed						
blank	None installed (easily removable cover only)						
Operating System:	_____	_____	_____	_____	_____	_____	_____
-XP	Windows XP Professional						
-W7	Windows 7 Professional (32-bit)						
-NOS	No OS installed						
Power Supply Option:	_____	_____	_____	_____	_____	_____	_____
blank	120-240 VAC						
-DC	24 Volt DC						

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

² If RAID Level 1 (mirroring) is desired, substitute "-RAID" for the second drive choice. The unit will be configured with two mirrored drives of the type chosen for Drive 1. This option is only available with Windows XP.



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