COMARK
s m a r t e r a u t o m a t i o n

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Nematron iPC1550KPT Industrial PC

15.0" High-Performance Industrial PC with Expansion Card Slots, Easily Removable Storage Media and Keypad with 81 Alphanumeric Keys

UL/cUL Class I Div 2 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 iPC1550KPT, Rev B

Windows 7 Ultimate Optional
64-Bit Application Support

Made in USA

Standard Configuration

- 15" XGA Color TFT LED-backlit Display
- High Performance Processor options to choose from:
  - Intel® Mobile Celeron® 1020E *(Dual Core, 2 Threads, 2.2 GHz, 2 MB cache)*
  - Intel® i5-3610ME *(Dual Core, 4 Threads, 2.7-3.3 GHz, 3 MB cache)*
  - Intel® i7-3610QE *(Quad Core, 8 Threads, 2.3-3.3 GHz, 6 MB cache)*
- 5-wire Analog Resistive Touchscreen
  - Optional Non-Touch clear polycarbonate window
- Front Panel Keypad with Reprogrammable & Relegendable Alphanumeric and Function Keys
- Expansion Card options *(8.75" max length)*:
  - Option 1: (1) PCI Slot and (1) PCIe x16 Slot

- Option 2: (2) PCI Slots
- Option 3: (1) PCIe x16 Slot and (1) PCIe x4 Slot *(x1 connection)*
- 240 GB Easily Removable SATA Solid State Drive
  - Optional larger SSD sizes or rotating hybrid hard drive
- Second Drive Option
  - Optional RAID Level 1 *(mirroring)* configuration
- Easily Removable SATA DVD-R/W drive
- Extensive I/O Connectivity
  - Dual Gigabit *(10/100/1000)* Ethernet ports
  - (2) USB 2.0 ports & (4) USB 3.0 ports
  - (1) RS-485/422/232 serial port *(BIOS selectable)*
  - (1) RS-232 serial port
  - (1) PS/2 port
  - Additional Analog Video port and HDMI port *(supports dual video)*

- 4 GB DRAM (up to 16 GB optional)
- Integrated 100-240 VAC power supply *(24 VDC optional)*
- NEMA 4/4x/12 front panel
- 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
  - Windows 7 Ultimate 64-bit or Windows 10 Enterprise IoT 32-bit or 64-bit optional
- 2-year Warranty

Technical Specifications

iPC1550KPT

Physical

Overall Dimensions	13.98" x 19.0" x 4.650" (355.1mm x 482.6mm x 117.5mm)
Panel Mounting Depth	4.3" (109.2mm)
Cutout Dimensions	12.37" x 17.40" (442.0mm x 314.2mm)
Weight	25.0 lbs (11.33kg)
Shipping Weight	30.0 lbs (13.60kg)

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; No Touchscreen option
Keypad Technology	Keypad with 81 Alphanumeric Keys - includes full keyboard functionality w/ 42 Reprogammable Function Keys and 26 Relegendable Keys

Processor

	Mobile Celeron 1020E	i5 Dual Core	i7 Quad Core
Type & Processor	Intel Mobile Celeron 1020E	Intel Dual Core i5-3610ME	Intel Quad Core i7-3610QE
Core Speed	2.2 GHz	2.7 to 3.3 GHz	2.3 to 3.3 GHz
Threads / Core	2 / 2	2 / 4	4 / 8
L2 Cache	2MB	3MB	6MB
Chipset	Intel QM77 Express	Intel QM77 Express	Intel QM77 Express
Ethernet Controllers	Intel 82579LM and Intel 82583V	Intel 82579LM and Intel 82583V	Intel 82579LM and Intel 82583V

Storage & Peripherals

Operating System	Windows 7 Professional 32-bit; Optional Windows 7 Ultimate 64-bit; Windows 10 Enterprise IoT 32-bit or 64-bit; or No OS installed
DRAM	4GB Single Module (204-pin Dual-channel DDR3 SO-DIMM, non-ECC, unbuffered, 1600 MHz); optional 8GB [1] or 16GB [1] max
Drive 1	240GB SATA Solid State Drive; optional 480GB, 960GB SS Drive or 1TB SATA Hybrid Hard Drive [2]
Drive 2	240GB SATA Solid State Drive; optional 480GB, 960GB SS Drive or 1TB SATA Hybrid Hard Drive [2]; RAID Level 1 Mirroring [3]
Optical Drive	(1) DVD-R/W drive; No optical drive installed option (cover plate only)
Available I/O	(2) USB 2.0, (4) USB 3.0 [4], (1) PS/2 Mouse & Keyboard port [5], (1) RS-232, (1) RS-485/422/432 (BIOS selectable), (1) Analog Video port (supports dual video with integrated display), (1) HDMI Video port, Line In/Audio Out/Mic ports [5], (2) Gigabit Ethernet 10/100/1000 ports
Expansion Capability	(2) 8.75" max length PCI slots via three Backplane options: (1) PCI and (1) PCIe x16; or (2) PCI; or (1) PCIe x4 (x1 connection) and (1) PCIe x16

[1] 8 and 16GB DRAM are only available with Windows 7 Ultimate or Windows 10 Enterprise IoT 64-bit operating system. [2] Hybrid Hard Drives have a solid state adaptive memory cache to significantly increase read/write performance. These are rotating hard drives and do not carry any extra part warranty. [3] RAID not available on Win XP. [4] USB 3.0 ports operate as USB 2.0 ports with Windows XP operating system only. [5] PS/2 and Audio ports not allowed for hazardous locations usage. Set up and maintenance use only.

Power

Input Power	70W
AC Input Voltage	100-240 VAC, 47-63 Hz, 2.0 A Maximum
DC Input Voltage	18-36 VDC, 7.5 A Maximum

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Technical Specifications

Environmental

	Operating	**Non-operating**
Temperature [6]	0°C to 55°C	-20°C to 70°C
Humidity	20% to 80% RH, noncondensing	20% to 80% RH, noncondensing
Shock [7]	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration (5-2000 Hz) [7]	.006" peak to peak displacement, 1.0g maximum acceleration	.015" peak to peak displacement, 2.5g maximum acceleration
Altitude [8]	Sea level to 10,000 feet	Sea level to 40,000 feet

[6] 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.
[7] Shock & Vibration specifications established with Solid State drives and no rotating media.
[8] Altitude specification is established by using all internal component specifications.

Environmental

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
Agency Approvals *	UL508 Listed, ANSI/ISA 12.12.01-2012, cUL Listed CSA C22.2, #142, cUL Listed CSA 22.2, #213

* iPC-Plus Series: Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F & G; Class III; Temp. Code: T5, 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

Features

1. Optional 5-wire Analog Resistive Touchscreen
2. Integral 100-240 VAC or 24 VDC Power Supply
3. UL/cUL 508, Class I Div 2, CE Approvals
4. Easily Removable SATA Solid State Drives
5. Hot- Swappable, Easily Removable DVD-R/W Drive
6. Extensive I/O Connectivity
7. USB Brackets, Ethernet, & PS/2 Cable Hold Down
8. Panel Mounting via Clips
9. Expansion Card Backplane options - 8-3/4" max length
10. VESA Mounting 100mm
11. Made with Pride in the USA

2 YR. WARRANTY

Standard 2-year warranty
- Covers parts and service
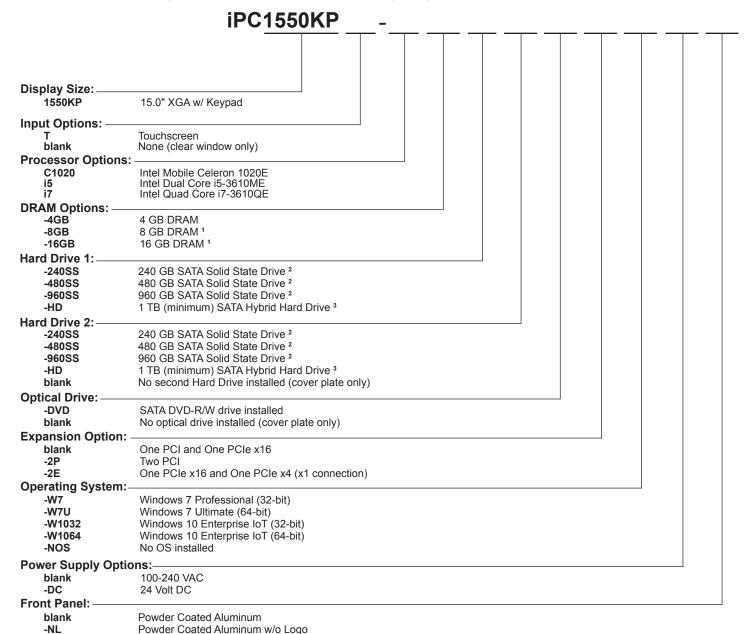
Base unit configuration: iPCx50KPT-C1020-4GB-240SS-DVD-W7, where x = 15, 17, 19 or 21 (for display size), with keypad and touchscreen, Mobile Celeron 1020E, 4 GB DRAM, 240 GB SATA Solid State Drive, SATA DVD-R/W drive, One PCI & One PCIe Expansion, and Windows 7 Professional (32-bit).

iPC1550KP ___ – ___ ___ ___ ___ ___ ___ ___ ___ ___

Display Size:
1550KP	15.0" XGA w/ Keypad

Input Options:
T	Touchscreen
blank	None (clear window only)

Processor Options:
C1020	Intel Mobile Celeron 1020E
i5	Intel Dual Core i5-3610ME
i7	Intel Quad Core i7-3610QE

DRAM Options:
-4GB	4 GB DRAM
-8GB	8 GB DRAM [1]
-16GB	16 GB DRAM [1]

Hard Drive 1:
-240SS	240 GB SATA Solid State Drive [2]
-480SS	480 GB SATA Solid State Drive [2]
-960SS	960 GB SATA Solid State Drive [2]
-HD	1 TB (minimum) SATA Hybrid Hard Drive [3]

Hard Drive 2:
-240SS	240 GB SATA Solid State Drive [2]
-480SS	480 GB SATA Solid State Drive [2]
-960SS	960 GB SATA Solid State Drive [2]
-HD	1 TB (minimum) SATA Hybrid Hard Drive [3]
blank	No second Hard Drive installed (cover plate only)

Optical Drive:
-DVD	SATA DVD-R/W drive installed
blank	No optical drive installed (cover plate only)

Expansion Option:
blank	One PCI and One PCIe x16
-2P	Two PCI
-2E	One PCIe x16 and One PCIe x4 (x1 connection)

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)
-NOS	No OS installed

Power Supply Options:
blank	100-240 VAC
-DC	24 Volt DC

Front Panel:
blank	Powder Coated Aluminum
-NL	Powder Coated Aluminum w/o Logo

[1] 8 GB and 16 GB DRAM only available with W7U (Windows 7 Ultimate 64-bit) or W1064 (Windows 10 Enterprise IoT 64-bit).
[2] Solid State Drive options carry a 5-year (part only) warranty.
[3] Hybrid Hard Drives have a solid state adaptive memory cache to significantly increase read/write performance. These are rotating hard drives and do not carry any extra part warranty.