

SIMATIC IPC227E (Nanobox PC); 1x display port; 2x 10/100/1000 Mbit/s Ethernet RJ45; 1 x USB3.0, 3 x USB2.0; CFast slot; 24 V DC industrial power supply Celeron N2930 (4C/4T) 4 GB with NVRAM Box: PCIE without COM without operating system 256 GB Eco SSD; without SIMATIC software DIN rail mounting

Installation type/mounting	
Mounting	DIN rail, wall mounting, portrait mounting
Design	Box PC, built-in unit
Supply voltage	
Type of supply voltage	24 V DC
Mains buffering	
<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	20 ms
Processor	
Processor type	Intel Celeron N2807 / N2930, Intel Atom E3845
Chipset	SoC
Graphic	
Graphics controller	Integrated
Drives	
Hard disk	2.5" SATA ≥ 320 GB
SSD	Yes; 256 Eco / 240 / 480 GB
Memory	
Type of memory	DDR3L SO-DIMM
Main memory	2 / 4 / 8 GB
Capacity of main memory, max.	8 Gbyte
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	512 kbyte; 128 KB can be stored in the buffer time; optional
Hardware configuration	
Slots	
<ul style="list-style-type: none"> free slots 	1x PCIe (x1) (optional)
<ul style="list-style-type: none"> Number of PCI slots 	1; Optional
<ul style="list-style-type: none"> Number of compact flash slots 	1; CFast
Interfaces	
Number of industrial Ethernet interfaces	2; 2x Ethernet (RJ45)
USB port	1x USB 3.0 / 3x USB 2.0
Connection for keyboard/mouse	USB / USB
Video interfaces	
<ul style="list-style-type: none"> Graphics interface 	1x DisplayPort
Industrial Ethernet	
<ul style="list-style-type: none"> Industrial Ethernet interface 	2x Ethernet (RJ45)
<ul style="list-style-type: none"> — 100 Mbps 	Yes
<ul style="list-style-type: none"> — 1000 Mbps 	Yes
Integrated Functions	
Monitoring functions	
<ul style="list-style-type: none"> Temperature monitoring 	Yes
<ul style="list-style-type: none"> Watchdog 	Yes
<ul style="list-style-type: none"> Fan 	No
<ul style="list-style-type: none"> Monitoring function via network 	Optional
EMC	
Interference immunity against discharge of static electricity	
<ul style="list-style-type: none"> Interference immunity against discharge of static electricity 	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2
Interference immunity against high-frequency electromagnetic fields	
<ul style="list-style-type: none"> Interference immunity against high frequency radiation 	10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 3

V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000-4-6

Interference immunity to cable-borne interference	
<ul style="list-style-type: none"> • Interference immunity on supply cables • Interference immunity on signal cables >30m • Interference immunity on signal cables < 30m 	<p>±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric</p> <p>±2 kV acc. to IEC 61000-4-5, surge, length > 30 m</p> <p>±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-4; burst; length > 3 m</p>
Interference immunity against voltage surge	
<ul style="list-style-type: none"> • asymmetric interference • symmetric interference 	<p>±2 kV acc. to IEC 61000-4-5, surge asymmetric</p> <p>±1 kV acc. to IEC 61000-4-5, surge symmetric</p>
Interference immunity to magnetic fields	
<ul style="list-style-type: none"> • Interference immunity to magnetic fields at 50 Hz 	100 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
<ul style="list-style-type: none"> • Interference emission via line/AC current cables 	EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A
Degree and class of protection	
IP degree of protection	IP40
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
<ul style="list-style-type: none"> • UL 508 	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
FCC	Yes
EMC	CE, EN 61000-6-4:2007, EN 61000-6-2:2005
Dust protection	Protection against foreign bodies > 1 mm
Use in hazardous areas	
<ul style="list-style-type: none"> • ATEX Zone 2 • IECEx Zone 2 • cULus Class I Zone 2, Division 2 	<p>Yes; Optional</p> <p>Yes; Optional</p> <p>Yes; Optional</p>
Marine approval	
<ul style="list-style-type: none"> • Germanischer Lloyd (GL) • American Bureau of Shipping (ABS) • Bureau Veritas (BV) • Det Norske Veritas (DNV) • Korean Register of Shipping (KRS) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (Class NK) • Chinese Classification Society (CCS) 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. • max. 	<p>0 °C; -20 °C as option</p> <p>60 °C</p>
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. • max. 	<p>-20 °C</p> <p>60 °C</p>
Relative humidity	
<ul style="list-style-type: none"> • Relative humidity 	Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5 % to 85 % at 30 °C (no condensation), storage / transport: 5 % to 95 % at 25 / 55 °C (no condensation)
Vibrations	
<ul style="list-style-type: none"> • Vibration resistance during operation acc. to IEC 60068-2-6 	tested to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm, 58 Hz to 200 Hz: 9.8 m/s ² (1 g)
Shock testing	
<ul style="list-style-type: none"> • Shock load during operation 	Tested according to IEC 60068-2-27: 150 m/s ² , 11 ms
Operating systems	
pre-installed operating system	Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 E/P, 32-bit / 64-bit
Additional info on operating system	optional: SIMATIC Industrial OS
without operating system	Yes; Optional

pre-installed operating system	
<ul style="list-style-type: none"> • Windows 7 • Windows 10 • Windows 10 Enterprise 	<p>Yes; Ultimate 32 bit or 64 bit</p> <p>Yes; Windows 10 IoT Enterprise 2016 LTSC, 64bit, MUI</p> <p>Yes; Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI</p>

Software	
SIMATIC Software	Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle

Dimensions	
Width	191 mm
Height	100 mm
Depth	60 mm

Approvals / Certificates

General Product Approval

[Miscellaneous](#)



[Manufacturer Declaration](#)



General Product Approval



[BIS CRS](#)

[China RoHS](#)



For use in hazardous locations	Maritime application
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[Miscellaneous](#)



Maritime application	Dangerous goods
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[NK / Nippon Kaiji Kyokai](#)

[CCS \(China Classification Society\)](#)

[KR \(Korean Register of Shipping\)](#)

[Dangerous goods information](#)

[Test Summary Report UN 38.3](#)

Dangerous goods	Environment
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