

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) 8 GB RAM; Box: Basis without COM without operating system 240 GB 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	
• 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
Storage	
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	
• free slots	1x PCIe (x1) (optional)
• Number of PCI slots	1; Optional
• 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	
• Graphics interface	1x DisplayPort
Industrial Ethernet	
• Industrial Ethernet interface	2x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
Integrated Functions	
Monitoring functions	
• Temperature monitoring	Yes
• Watchdog	Yes
• Fan	No
• Monitoring function via network	Optional
EMC	
Interference immunity against discharge of static electricity	
• 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	
• 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 	±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
<ul style="list-style-type: none"> Interference immunity on signal cables >30m 	±2 kV acc. to IEC 61000-4-5, surge, length > 30 m
<ul style="list-style-type: none"> Interference immunity on signal cables < 30m 	±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-4; burst; length > 3 m
Interference immunity against voltage surge	
<ul style="list-style-type: none"> asymmetric interference 	±2 kV acc. to IEC 61000-4-5, surge asymmetric
<ul style="list-style-type: none"> symmetric interference 	±1 kV acc. to IEC 61000-4-5, surge symmetric
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 	Yes; Optional
<ul style="list-style-type: none"> IECEx Zone 2 	Yes; Optional
<ul style="list-style-type: none"> cULus Class I Zone 2, Division 2 	Yes; Optional
Marine approval	
<ul style="list-style-type: none"> Germanischer Lloyd (GL) 	Yes
<ul style="list-style-type: none"> American Bureau of Shipping (ABS) 	Yes
<ul style="list-style-type: none"> Bureau Veritas (BV) 	Yes
<ul style="list-style-type: none"> Det Norske Veritas (DNV) 	Yes
<ul style="list-style-type: none"> Korean Register of Shipping (KRS) 	Yes
<ul style="list-style-type: none"> Lloyds Register of Shipping (LRS) 	Yes
<ul style="list-style-type: none"> Nippon Kaiji Kyokai (Class NK) 	Yes
<ul style="list-style-type: none"> Chinese Classification Society (CCS) 	Yes
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> min. 	0 °C; -20 °C as option
<ul style="list-style-type: none"> max. 	60 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> min. 	-20 °C
<ul style="list-style-type: none"> max. 	60 °C
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/s² (1 g)
Shock testing	
<ul style="list-style-type: none"> Shock load during operation 	Tested according to IEC 60068-2-27: 150 m/s², 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		Yes; Ultimate 32 bit or 64 bit	
		Yes; Windows 10 IoT Enterprise 2016 LTSC, 64bit, MUI	
		Yes; Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI	
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	
Classifications			
		Version	Classification
	eClass	16	19-20-01-02
	eClass	14	19-20-01-02
	eClass	12	19-20-01-02
	eClass	9.1	19-20-01-02
	eClass	9	19-20-01-02
	eClass	8	19-20-01-02
	eClass	7.1	19-20-01-02
	eClass	6	19-20-01-02
	ETIM	10	EC001413
	ETIM	9	EC001413
	ETIM	8	EC001413
	ETIM	7	EC001413
Approvals / Certificates			
General Product Approval			
<div><div>Miscellaneous</div><div> EG-Konf.</div><div></div><div>Manufacturer Declaration</div><div> UL</div><div></div></div>			
General Product Approval			
<div><div> RCM</div><div></div><div>BIS CRS</div><div>China RoHS</div><div> EG-Konf.</div><div></div></div>			
For use in hazardous locations		Maritime application	
<div><div> ATEX</div><div> IECEX</div><div>Miscellaneous</div></div>		<div><div> ABS</div><div> BUREAU VERITAS</div><div> DNV</div></div>	
Maritime application		Dangerous goods	
<div><div> LRS</div><div>NK / Nippon Kaiji Kyokai</div><div>CCS (China Classification Society)</div><div>KR (Korean Register of Shipping)</div></div>		<div><div>Dangerous goods information</div><div>Test Summary Report UN 38.3</div></div>	
Dangerous goods		Environment	

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