

SIMATIC IPC427E (Microbox PC), HD graphic onboard, 4x USB V3.0 (high current), PCIE (optional), Core i5-6442EQ; 3x Gbit Ethernet (IE/PN); Mounting onto standard rail; 8 GB and NVRAM; Without RS232/485, without PCIe; without operating system, Without replaceable mass storage; 256 GB Eco SSD; Without SIMATIC software; 24 V DC industrial power supply

General information	
Product type designation	IPC427E
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
Rated value (DC)	24 V; PELV / SELV floating
Mains buffering	
<ul style="list-style-type: none"> <li>Mains/voltage failure stored energy time</li> </ul>	20 ms
Processor	
Processor type	Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); Core i5-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB Cache, iAMT); Xeon E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB Cache, iAMT)
Chipset	Intel C236 / Intel H110
Graphic	
Graphics controller	Intel HD graphics controller
Drives	
Hard disk	2.5" SATA ≥ 320 GB
SSD	Yes; 128 / 240 / 480 GB
Memory	
Type of memory	DDR4-2400 SO-DIMM
Main memory	4 / 8 / 16 GB, ECC optional
Capacity of main memory, max.	16 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"> <li>free slots</li> <li>Number of PCI slots</li> <li>Number of compact flash slots</li> </ul>	2x PCIe; optional: 1x PCIe (x4); 2x PCIe (x1, x4), with card retainer 2; Optional 1; CFast
Interfaces	
Number of industrial Ethernet interfaces	3; Ethernet (2x RJ45, optional 3x RJ45)
USB port	4x USB 3.0
Connection for keyboard/mouse	USB / USB
Video interfaces	
<ul style="list-style-type: none"> <li>Graphics interface</li> </ul>	2x DisplayPort
Industrial Ethernet	
<ul style="list-style-type: none"> <li>Industrial Ethernet interface                             <ul style="list-style-type: none"> <li>— 100 Mbps</li> <li>— 1000 Mbps</li> </ul> </li> </ul>	3x Ethernet (RJ45) Yes Yes
Interrupts/diagnostics/status information	
Bus diagnostics	Yes
Integrated Functions	
Monitoring functions	
<ul style="list-style-type: none"> <li>Temperature monitoring</li> <li>Watchdog</li> <li>Fan</li> <li>Monitoring function via network</li> </ul>	Yes Yes No Optional

EMC	
Interference immunity against discharge of static electricity	
<ul style="list-style-type: none"> <li>Interference immunity against discharge of static electricity</li> </ul>	±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"> <li>Interference immunity against high frequency radiation</li> </ul>	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"> <li>Interference immunity on supply cables</li> <li>Interference immunity on signal cables &gt;30m</li> <li>Interference immunity on signal cables &lt; 30m</li> </ul>	±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 ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m ±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"> <li>asymmetric interference</li> <li>symmetric interference</li> </ul>	±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity to magnetic fields	
<ul style="list-style-type: none"> <li>Interference immunity to magnetic fields at 50 Hz</li> </ul>	100 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
<ul style="list-style-type: none"> <li>Interference emission via line/AC current cables</li> </ul>	EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
<ul style="list-style-type: none"> <li>UL 508</li> </ul>	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
FCC	Yes
EMC	CE, EN 55022A, EN 61000-6-4, EN 61000-6-2
Use in hazardous areas	
<ul style="list-style-type: none"> <li>ATEX Zone 2</li> <li>ATEX Zone 22</li> <li>IECEX Zone 2</li> <li>IECEX Zone 22</li> <li>CCC Ex</li> <li>cULus Class I Zone 1</li> <li>cULus Class I Zone 2, Division 2</li> <li>cULus Class II Division 2</li> <li>FM Class I Division 2</li> <li>FM Class II Division 2</li> </ul>	Yes; for inscription on device rating plate No Yes; for inscription on device rating plate No Yes; for inscription on device rating plate No Yes; for inscription on device rating plate No No No
Marine approval	
<ul style="list-style-type: none"> <li>Germanischer Lloyd (GL)</li> <li>American Bureau of Shipping (ABS)</li> <li>Bureau Veritas (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Korean Register of Shipping (KRS)</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (Class NK)</li> </ul>	Yes Yes Yes Yes Yes Yes Yes
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>	0 °C 55 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>	-40 °C 70 °C
Relative humidity	
<ul style="list-style-type: none"> <li>Relative humidity</li> </ul>	Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5% to 80% at 25 °C (no condensation), Storage: 5% to 95% at 25 °C (no condensation)

<b>Vibrations</b>	
<ul style="list-style-type: none"> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> </ul>	tested to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm, 58 Hz to 200 Hz: 9.8 m/s <sup>2</sup> (1 g)
<b>Shock testing</b>	
<ul style="list-style-type: none"> <li>Shock load during operation</li> </ul>	Tested to DIN IEC 60068-2-29: 50 m/s <sup>2</sup> (5 g), 30 ms, 100 shocks
<b>Operating systems</b>	
pre-installed operating system	Windows 7 Ultimate (Multi-Language) 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit, Windows 10
without operating system	Yes; Optional
pre-installed operating system	
<ul style="list-style-type: none"> <li>Windows 7</li> </ul>	Yes; Ultimate 32 bit or 64 bit
<ul style="list-style-type: none"> <li>Windows 10 Enterprise</li> </ul>	Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI
<b>Software</b>	
Pre-installed software	Edge SW (Simatic, Sinumerik), optional
SIMATIC Software	Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle
<b>Dimensions</b>	
Width	262 mm
Height	139.7 mm
Depth	55.5 mm; without PCIe

**Approvals / Certificates**

**General Product Approval**



[Manufacturer Declaration](#)



[KC](#)



**For use in hazardous locations** **Maritime application**



[Miscellaneous](#)

[CCC-Ex](#)



**Maritime application**



[NK / Nippon Kaiji Kyokai](#)

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



**Dangerous goods** **Environment**

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