

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; 16 GB; 2x RS232/485; without PCIe; without operating system, without exchangeable mass storage; 240 GB solid-state drive SATA; Industrial Edge – SIMATIC; 24 V DC industrial power supply and TPM

General information	
Product type designation	IPC427E
Installation type/mounting	
Mounting	standard rail
Design	Box PC, built-in unit
Supply voltage	
Type of supply voltage	24 V DC
Mains buffering	
<ul style="list-style-type: none"> <li>Mains/voltage failure stored energy time</li> </ul>	20 ms
Processor	
Processor type	Core i5-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB cache)
Chipset	Intel C236 / Intel H110
Graphic	
Graphics controller	Intel HD graphics controller
Drives	
SSD	Yes; ≥ 240 GB optional
Memory	
Type of memory	DDR4-2400 SO-DIMM
Capacity of main memory, max.	16 Gbyte
Hardware configuration	
Slots	
<ul style="list-style-type: none"> <li>Number of PCI slots</li> <li>Number of compact flash slots</li> </ul>	0 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
serial interface	2x COM (1x RS 232; 1x RS 232 / 422 / 485)
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>Status LEDs</li> <li>Fan</li> <li>Monitoring function via network</li> </ul>	Yes Yes 1x power, 3x user 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
<b>Interference immunity to cable-borne interference</b>	
<ul style="list-style-type: none"> <li>Interference immunity on supply cables</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
<ul style="list-style-type: none"> <li>Interference immunity on signal cables &gt;30m</li> </ul>	±2 kV acc. to IEC 61000-4-5, surge, length > 30 m
<ul style="list-style-type: none"> <li>Interference immunity on signal cables &lt; 30m</li> </ul>	±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-4; burst; length > 3 m
<b>Interference immunity against voltage surge</b>	
<ul style="list-style-type: none"> <li>asymmetric interference</li> </ul>	±2 kV acc. to IEC 61000-4-5, surge asymmetric
<ul style="list-style-type: none"> <li>symmetric interference</li> </ul>	±1 kV acc. to IEC 61000-4-5, surge symmetric
<b>Interference immunity to magnetic fields</b>	
<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
<b>Emission of conducted and non-conducted interference</b>	
<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
<b>Degree and class of protection</b>	
IP degree of protection	IP20
<b>Standards, approvals, certificates</b>	
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
<b>Use in hazardous areas</b>	
<ul style="list-style-type: none"> <li>ATEX Zone 2</li> </ul>	Yes; Optional
<ul style="list-style-type: none"> <li>IECEx Zone 2</li> </ul>	Yes; Optional
<ul style="list-style-type: none"> <li>cULus Class I Zone 2, Division 2</li> </ul>	Yes; Optional
<b>Marine approval</b>	
<ul style="list-style-type: none"> <li>Germanischer Lloyd (GL)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>American Bureau of Shipping (ABS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Bureau Veritas (BV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Det Norske Veritas (DNV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Korean Register of Shipping (KRS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Lloyds Register of Shipping (LRS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Nippon Kaiji Kyokai (Class NK)</li> </ul>	Yes
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
<ul style="list-style-type: none"> <li>min.</li> </ul>	0 °C
<ul style="list-style-type: none"> <li>max.</li> </ul>	55 °C
<b>Ambient temperature during storage/transportation</b>	
<ul style="list-style-type: none"> <li>min.</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>max.</li> </ul>	70 °C
<b>Relative humidity</b>	
<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	SIMATIC Industrial OS
<b>Software</b>	
SIMATIC Software	Industrial Edge - SIMATIC
<b>Dimensions</b>	
Width	262 mm
Height	139.7 mm

Depth

55.5 mm; without PCIe

last modified:

5/1/2022 