

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; without RS232/485; 2x PCIe (x4 and x1); without operating system, Without replaceable mass storage; 480 GB solid-state drive SATA 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
Mains buffering	
• Mains/voltage failure stored energy time	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	
Optical drives	possible as external drive via USB
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 Gbyte, 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	

• free slots	2x PCIe; optional: 1x PCIe (x4); 2x PCIe (x1, x4), with card retainer
• Number of PCI slots	2; Optional
• Number of compact flash slots	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	Without / 2x COM (RS 232 / 485 / 422; switchable)

Video interfaces

• Graphics interface	2x DisplayPort
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Industrial Ethernet

• Industrial Ethernet interface	3x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes

Interrupts/diagnostics/status information

Bus diagnostics	Yes
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Integrated Functions

Monitoring functions

• Temperature monitoring	Yes
• Watchdog	Yes
• Status LEDs	1x power, 3x user
• 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
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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
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Interference immunity to cable-borne interference

• 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
• Interference immunity on signal cables >30m	±2 kV acc. to IEC 61000-4-5, surge, length > 30 m
• 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

• asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric
• 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	IP20
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
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"> 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
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> Ambient temperature during operation 	0 °C to 55 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> min. 	-40 °C
<ul style="list-style-type: none"> max. 	70 °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 80% at 25 °C (no condensation), Storage: 5% to 95% at 25 °C (no condensation)
Operating systems	

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	
• Windows 7	Yes; Ultimate 32 bit or 64 bit
• Windows 10 Enterprise	Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI

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

Dimensions	
Width	262 mm
Height	139.7 mm
Depth	55.5 mm
last modified:	06/11/2020