

SIMATIC IPC427E (Microbox PC), HD graphic onboard, 4x USB V3.0 (high current), PCIE (optional), Core i5-6442EQ; 3x Gbit Ethernet (IE/PN); Vertical mounting; 16 GB; 2x RS232/485; 1x PCIe (x4); WIN Embedded Standard 7 SP1, English, 64-bit; Without replaceable mass storage; 240 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)

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; 1x 128 GB, 1x 240 GB SSD, 1x 480 GB SSD

Memory

Main memory 4 GB to 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

- 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

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

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

- 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

- 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 (at the front)	IP20
IP (rear)	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
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 storage/transportation	
<ul style="list-style-type: none"> min. 	-40 °C
<ul style="list-style-type: none"> max. 	70 °C
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	
<ul style="list-style-type: none"> Windows 7 	Yes; Ultimate 32 bit or 64 bit
<ul style="list-style-type: none"> 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
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