SIEMENS

Data sheet

6AG4141-7BH20-3AA0

SIMATIC IPC427E (Microbox PC), HD graphic onboard, 4x USB V3.0 (high current), PCIE (optional), XEON E3-1505L; 3x Gbit Ethernet (IE/PN); Mounting onto standard rail; 16 GB and NVRAM; without RS232/485; 2x PCIe (x4 and x1); without operating system, CFAST 8 GB, (only optionally with operating system/SW, if no internal mass storage); without internal mass storage; 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	
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	
• free slots	2x PCle; optional: 1x PCle (x4); 2x PCle (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
Integrated Functions	
Monitoring functions	

Walcholdog Status LEDs Status	Temperature monitoring	Yes
Status LEDs Fan Pan Pan Pan Poptional EMC EMC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic fields Interference immunity on a signal cables > 30m Interference immunity on supply cables Interference immunity on supply cables Interference immunity on signal cables > 30m Interference immunity on signal cab		
No Optional No Optional	<u> </u>	
• Monitoring function via network Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity • Interference immunity against high frequency electromagnetic fields • Interference immunity on supply cables • Interference immunity on supply cables • Interference immunity on supply cables • Interference immunity on signal cables > 30m • Interf		
Interference immunity against discharge of static electricity		
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Interference immunity against discharge of static electricity to EC 61000-4-2; 18 kV air discharge acc. to EC 61000-4-3; 10 kV air discharge acc. to EC 61000-4-3; 10 kV air discharge acc. to EC 61000-4-3; 10 kV for 10 kHz. and 1.4 - 2 GHz, 80% AM acc. to EC 61000-4-3; 10 kV for 10 kHz. and 1.4 - 2 GHz, 80% AM acc. to EC 61000-4-3; 10 kV for 10 kHz. and MHz, 80% AM acc. to EC 61000-4-3; 10 kV for 10 kV f		
electricity Interference immunity against high-frequency electromagnetic fields Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on signal cables > 30m Interference immunity on signal cables > 30m Interference immunity on signal cables < 30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference Interference immunity to magnetic fields Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity in magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference immunity in magnetic fields at 50 Hz Emission of conducted and non-conducted interferen		±6 kV contact discharge acc. to IEC 61000-4-2: ±8 kV air discharge acc.
Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on supply cables Interference immunity on signal cables > 30m Interference immunity against voltage surge asymmetric interference symmetric interference ymmetric interference ymmetric interference interference immunity to magnetic fields Interference immunity to magnetic fields Interference immunity to magnetic fields at 50 Hz Emission of conducted and non-conducted interference Interference emission is line/AC current cables Degree and class of protection IP degree of protection IP degree of protection IP degree of protection IP degree of protection IP Comproval Ves CLL approval Ves CLL approval ATEX Zone 2 ICCM (formerly C-TICK) Yes CCC. ENC ENC ENC ENC ENC ENC CC. EN 55022A, EN 61000-6-4, EN 61000-6-2 Ves CC. EN 55022A, EN 61000-6-4, EN 61000-6-2 Ves Oct. EN 55022A, EN 61000-6-3, EN 61000-6-2 Ves Oct. EN 55022A, EN 61000-6-4, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-3, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-3, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-3, EN 61000-6-3, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-4, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-3, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-4, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-3, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-3, EN 61000-6-2 Ves Oct. EN 5502A, EN 61000-6-3,	, ,	
radiation A43, 3 Vm 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 61000.4-3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000.4-3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000.4-5; surge symmetric minumity on supply cables Interference immunity on signal cables > 30m	Interference immunity against high-frequency electromagneti	c fields
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Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity against voltage surge asymmetric interference symmetric interference symmetric interference symmetric interference 12 kV acc. to IEC 61000-4-f; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-f; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-5, surge asymmetric 1 kV ac	 Interference immunity on supply cables 	±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge
Interference immunity on signal cables < 30m 1st kV acc. to IEC 610004-4; burst; length < 3 m; ±2 kV acc. to IEC 610004-4; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-6; burst; length > 3 m; ±2 kV acc. to IEC 610004-6; burst; length > 3 m; ±2 kV acc. to IEC 610004-5; burst; length > 3 m; ±2 kV acc. to IEC 610004-6; burst;	a Interference immunity on cignal cables >20m	
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Emission of conducted and non-conducted interference • Interference emission via line/AC current cables Degree and class of protection IP degree of protection IP degre	Interference immunity to magnetic fields	
● Interference emission via line/AC current cables Degree and class of protection IP degree of protection IP degree of protection Standards, approvals, certificates CE mark Ves UL approval • UL 508 CULus RCM (formerly C-TICK) KC approval EAC (formerly Gost-R) FCC EMC Use in hazardous areas • ATEX Zone 2 • EULUs Class I Zone 2, Division 2 Marine approval • Germanischer Lloyd (GL) • Ambient temperature during operation • max, • MTEX I Cone • MTEX I Cone • Ambient temperature during operation • max, • Ambient temperature during operation • max, • Ambient temperature during operation • max, • max, 70 °C Relative humidity	Interference immunity to magnetic fields at 50 Hz	100 A/m; to IEC 61000-4-8
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Ambient temperature during operation • Ambient temperature during operation • Min. • min. • max. 70 °C Relative humidity		
 Ambient temperature during operation Manual operation Min. Min.<td></td><td></td>		
Ambient temperature during storage/transportation		0 °C to 55 °C
● max. 70 °C Relative humidity		-40 °C
Relative humidity		
•		
80% at 25 °C (no condensation), Storage: 5% to 95% at 25 °C (no condensation)	Relative humidity	· · · · · · · · · · · · · · · · · · ·
Vibrations	Vibrations	

 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	
 Shock load during operation 	Tested to DIN IEC 60068-2-29: 50 m/s² (5 g), 30 ms, 100 shocks
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 LTSB, 64 bit, MUI
Software	
Pre-installed software	Edge SW (Simatic, Sinumerik), optional
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; without PCle

9/16/2022

last modified: