SIEMENS

Data sheet

SIMATIC IPC427D (Microbox PC), HD graphic onboard, 2x10/100/1000 Mbit/s Ethernet RJ45, 4xUSB V3.0 (high current), PCIe (optional), 24 V DC power supply Core I3-3217UE; 2x Gbit Ethernet (IE/PN); PROFIBUS DP 12; DIN rail mounting; 8 GB; 1x RS-232; 1x PCIE; WIN Embedded Standard 7 SP1, English, 64-bit; Replaceable without drive; 320 GB HDD SATA; without SIMATIC software

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

Processor	
Processor type	Celeron 827E (1C/1T, 1.40 GHz, 1.5 MB Cache); Core i3-3217UE (2C/4T, 1.60 GHz, 3 MB Cache); Core i7-3517UE (2C/4T, 1.70 (2.80) GHz, 4 MB Cache, iAMT)

Graphic	
Graphics controller	Intel HD Graphics, Intel HD Graphics 4000

Drives	
Hard disk	2.5" SATA ≥ 320 GB
SSD	Yes; 1x 240 GB SSD, 1x 480 GB SSD

Memory	
Type of memory	DDR3 SO-DIMM
Main memory	2 / 4 / 8 GB; ECC optional
Capacity of main memory, max.	8 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	2; CFast
Interfaces	

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PROFIBUS/MPI	Optionally onboard, isolated, max. 12 Mbps, compatible with CP 5611
Number of PROFINET interfaces	1; 3 ports (incl. switch)
USB port	4x USB 3.0
Connection for keyboard/mouse	USB / USB
serial interface	COM1: 1x RS 232, COM2 (optional): 1x RS 232
Video interfaces	
• Graphics interface	1x DisplayPort and 1x DVI-I; 1x VGA via adapter cable (optional)
Industrial Ethernet	
• Industrial Ethernet interface	Onboard, 2x 10/100/1 000 Mbit, RJ45, no plug-in card necessary
— 100 Mbps	Yes
— 1000 Mbps	Yes
Interrupts/diagnostics/status information	
Bus diagnostics	Yes
Integrated Functions	
Monitoring functions	
• Temperature monitoring	Yes
• Watchdog	Yes
• Status LEDs	Yes
• 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	

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• 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; CE marking / EC Declaration of Conformity
UL approval	Yes
• 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

• ATEX Zone 2	Yes; Optional
• IECEx Zone 2	Yes; Optional
• cULus Class I Zone 2, Division 2	Yes

Marine approval

• Germanischer Lloyd (GL)	Yes
• American Bureau of Shipping (ABS)	Yes
• Bureau Veritas (BV)	Yes
• Det Norske Veritas (DNV)	Yes
• Korean Register of Shipping (KRS)	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes

Ambient conditions

Ambient temperature during operation

• Ambient temperature during operation	0 °C up to 55 °C

Ambient temperature during storage/transportation

• min.	-40 °C
• max.	70 °C

Relative humidity

• 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)

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

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Operating systems	
Operating system	Windows 7 Ultimate (Multi-Language) 32-bit / 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit
pre-installed operating system	Yes
without operating system	Yes; Optional
pre-installed operating system	
• Windows 7	Yes; Ultimate 32 bit or 64 bit

Software	
SIMATIC Software	Optionally with pre-installed software bundle SIMATIC WinCC RT Advanced / WinAC RTX

Dimensions	
Width	262 mm
Height	139.7 mm
Depth	50.5 mm
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