

SIMATIC IPC427D (MICROBOX PC), HD GRAPHIC ONBOARD, 2X10/100/1000 MBIT/S ETHERNET RJ45, 4 X USB V3.0 (HIGH CURRENT), PCIE (OPTIONAL), 24V DC POWER SUPPLY;



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; ≥ 80 GB, optional ≥ 160 GB
Memory	
Type of memory	DDR3 SO-DIMM
Main memory	1 / 2 / 4 / 8 GB; ECC optional

- Capacity of main memory, max. 8 Gbyte

Data areas and their retentivity

retentive data area in total (incl. times, 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

PROFIBUS/MPI onboard, isolated, max. 12 Mbit/s, CP 5611-compatible

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, 2 x 10/100/1000 Mbit/s, RJ45, no plug-in card necessary
 - 100 Mbps Yes
 - 1000 Mbps Yes

Interrupts/diagnostics/status information

Bus diagnostics Yes

Integrated Functions

Monitoring functions

- Temperature Yes
- Watchdog Yes
- Status LEDs Yes
- 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 - 1000 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

<ul style="list-style-type: none"> • Interference immunity on signal cables >30m • Interference immunity on signal cables < 30m 	<p>±2 kV acc. to IEC 61000-4-5, surge, length > 30 m</p> <p>±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-4; burst; length > 3 m</p>
Interference immunity against voltage surge	
<ul style="list-style-type: none"> • asymmetric interference • symmetric interference 	<p>±2 kV acc. to IEC 61000-4-5, surge asymmetric</p> <p>±1 kV acc. to IEC 61000-4-5, surge symmetric</p>
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 (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
<ul style="list-style-type: none"> • EN 61000-6-2 	Yes
Marine approval	
<ul style="list-style-type: none"> • Germanischer Lloyd (GL) • American Bureau of Shipping (ABS) • Bureau Veritas (BV) • Det Norske Veritas (DNV) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (Class NK) 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • Ambient temperature during operation • min. • max. 	<p>0 °C to +55 °C</p> <p>0 °C</p> <p>55 °C</p>
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. • max. 	<p>-40 °C</p> <p>70 °C</p>
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 load in operation	Tested to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm, 58 Hz to 200 Hz: 9.8 m/s ² (1 g)
Shock testing	
• Shock load during operation	Tested to DIN IEC 60068-2-29: 50 m/s ² (5 g), 30 ms, 100 shocks
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
pre-installed operating system	
• Windows 7	Yes; Ultimate 32 bits or 64 bits
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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