

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; Vertical mounting; 2 GB with NVRAM; 1x RS-232; without PCIE; WIN Embedded Standard 7, 32-bit CFast 8 GB, (possible with SW, if no internal mass storage); Without internal mass storage; WinAC RTX 2010 SP2

### 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
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### 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)
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### Graphic

Graphics controller	Intel HD Graphics, Intel HD Graphics 4000
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### 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
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### Hardware configuration

Slots	
<ul style="list-style-type: none"> <li>• free slots</li> </ul>	2x PCIe; optional: 1x PCIe (x4); 2x PCIe (x1, x4), with card retainer
<ul style="list-style-type: none"> <li>• Number of PCI slots</li> </ul>	2; Optional
<ul style="list-style-type: none"> <li>• Number of compact flash slots</li> </ul>	2; CFast

### Interfaces

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
<b>Video interfaces</b>	
• Graphics interface	1x DisplayPort and 1x DVI-I; 1x VGA via adapter cable (optional)
<b>Industrial Ethernet</b>	
• Industrial Ethernet interface	Onboard, 2x 10/100/1 000 Mbit, RJ45, no plug-in card necessary
— 100 Mbps	Yes
— 1000 Mbps	Yes
<b>Interrupts/diagnostics/status information</b>	
Bus diagnostics	Yes
<b>Integrated Functions</b>	
<b>Monitoring functions</b>	
• Temperature monitoring	Yes
• Watchdog	Yes
• Status LEDs	Yes
• Fan	No
• Monitoring function via network	Optional
<b>EMC</b>	
<b>Interference immunity against discharge of static electricity</b>	
• 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
<b>Interference immunity against high-frequency electromagnetic fields</b>	
• 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
<b>Interference immunity to cable-borne interference</b>	
• 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
<b>Interference immunity against voltage surge</b>	
• asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric
• symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
<b>Interference immunity to magnetic fields</b>	
• Interference immunity to magnetic fields at 50 Hz	100 A/m; to IEC 61000-4-8
<b>Emission of conducted and non-conducted interference</b>	

- 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

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

### Marine approval

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|-------------------------------------|-----|
| • 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

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|--|------------------|
| • Ambient temperature during operation | 0 °C up to 55 °C |
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#### 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) |
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#### Vibrations

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|---|--|
| • 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/s <sup>2</sup> (1 g) |
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#### Shock testing

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| • Shock load during operation | Tested to DIN IEC 60068-2-29: 50 m/s <sup>2</sup> (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
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## Dimensions

Width	262 mm
Height	139.7 mm
Depth	50.5 mm

**last modified:** 09/12/2019