

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

### 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 80 GB, 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   |   |
| <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                  | onboard, isolated, max. 12 Mbit/s, CP 5611-compatible |
| 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  |   |
| — 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   |
| • 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 - 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 |
| <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   |
| <b>Degree and class of protection</b>                                      |   |
| IP (at the front)  | IP20  |
| IP (rear)  | IP20  |
| <b>Standards, approvals, certificates</b>                                  |   |

|   |  |
|---|--|
| CE mark   | Yes  |
| 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  |
| <b>Use in hazardous areas</b>                                 |  |
| • ATEX Zone 2   | Yes  |
| • IECEx Zone 2  | Yes  |
| • cULus Class I Zone 2, Division 2                            | Yes  |
| <b>Marine approval</b>  |  |
| • 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  |
| <b>Ambient conditions</b>                                     |  |
| <b>Ambient temperature during operation</b>                   |  |
| • Ambient temperature during operation                        | 0 °C to +55 °C   |
| <b>Ambient temperature during storage/transportation</b>      |  |
| • min.  | -40 °C   |
| • max.  | 70 °C  |
| <b>Relative humidity</b>                                      |  |
| • 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) |
| <b>Vibrations</b>   |  |
| • 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)   |
| <b>Shock testing</b>  |  |
| • Shock load during operation                                 | Tested to DIN IEC 60068-2-29: 50 m/s <sup>2</sup> (5 g), 30 ms, 100 shocks   |
| <b>Operating systems</b>                                      |  |
| 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  |
| <b>pre-installed operating system</b>                         |  |
| • 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  |

**last modified:** 09/10/2018