

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 i7-3517UE; 2x Gbit Ethernet (IE/PN); PROFIBUS DP 12; DIN rail mounting; 4 GB; 1x RS-232; 1x PCIe; Windows 7 Ultimate, 32-bit; Replaceable without drive; SSD 240 GB Standard (MLC); 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                                                                                                                                                                            |                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>free slots</li> <li>Number of PCI slots</li> <li>Number of compact flash slots</li> </ul>                                                 | 2x PCIe; optional: 1x PCIe (x4); 2x PCIe (x1, x4), with card retainer<br>2; Optional<br>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                                                                                                           |
| Video interfaces                                                                                                                                                                 |                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>Graphics interface</li> </ul>                                                                                                             | 1x DisplayPort and 1x DVI-I; 1x VGA via adapter cable (optional)                                                                                      |
| Industrial Ethernet                                                                                                                                                              |                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>Industrial Ethernet interface               <ul style="list-style-type: none"> <li>— 100 Mbps</li> <li>— 1000 Mbps</li> </ul> </li> </ul> | Yes<br>Yes                                                                                                                                            |
| Interrupts/diagnostics/status information                                                                                                                                        |                                                                                                                                                       |
| Bus diagnostics                                                                                                                                                                  | Yes                                                                                                                                                   |
| Integrated Functions                                                                                                                                                             |                                                                                                                                                       |
| Monitoring functions                                                                                                                                                             |                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>Temperature monitoring</li> <li>Watchdog</li> <li>Status LEDs</li> <li>Fan</li> <li>Monitoring function via network</li> </ul>            | Yes<br>Yes<br>Yes<br>No<br>Optional                                                                                                                   |

|                                                                                                                 |                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EMC</b>                                                                                                      |                                                                                                                                                                                      |
| Interference immunity against discharge of static electricity                                                   |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Interference immunity against discharge of static electricity</li> </ul> | ±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                                             |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Interference immunity against high frequency radiation</li> </ul>        | 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                                                               |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Interference immunity on supply cables</li> </ul>                        | ±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"> <li>Interference immunity on signal cables &gt;30m</li> </ul>                | ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m                                                                                                                                    |
| <ul style="list-style-type: none"> <li>Interference immunity on signal cables &lt; 30m</li> </ul>               | ±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                                                                     |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>asymmetric interference</li> </ul>                                       | ±2 kV acc. to IEC 61000-4-5, surge asymmetric                                                                                                                                        |
| <ul style="list-style-type: none"> <li>symmetric interference</li> </ul>                                        | ±1 kV acc. to IEC 61000-4-5, surge symmetric                                                                                                                                         |
| Interference immunity to magnetic fields                                                                        |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Interference immunity to magnetic fields at 50 Hz</li> </ul>             | 100 A/m; to IEC 61000-4-8                                                                                                                                                            |
| Emission of conducted and non-conducted interference                                                            |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Interference emission via line/AC current cables</li> </ul>              | 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; CE marking / EC Declaration of Conformity                                                                                                                                       |
| UL approval                                                                                                     | Yes                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>UL 508</li> </ul>                                                        | 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                                                                                          |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>ATEX Zone 2</li> </ul>                                                   | Yes; Optional                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>IECEx Zone 2</li> </ul>                                                  | Yes; Optional                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>cULus Class I Zone 2, Division 2</li> </ul>                              | Yes; Optional                                                                                                                                                                        |
| Marine approval                                                                                                 |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Germanischer Lloyd (GL)</li> </ul>                                       | Yes                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>American Bureau of Shipping (ABS)</li> </ul>                             | Yes                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>Bureau Veritas (BV)</li> </ul>                                           | Yes                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>Det Norske Veritas (DNV)</li> </ul>                                      | Yes                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>Korean Register of Shipping (KRS)</li> </ul>                             | Yes                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>Lloyds Register of Shipping (LRS)</li> </ul>                             | Yes                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>Nippon Kaiji Kyokai (Class NK)</li> </ul>                                | Yes                                                                                                                                                                                  |
| <b>Ambient conditions</b>                                                                                       |                                                                                                                                                                                      |
| Ambient temperature during operation                                                                            |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Ambient temperature during operation</li> </ul>                          | 0 °C up to 55 °C                                                                                                                                                                     |
| Ambient temperature during storage/transportation                                                               |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>min.</li> </ul>                                                          | -40 °C                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>max.</li> </ul>                                                          | 70 °C                                                                                                                                                                                |
| Relative humidity                                                                                               |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Relative humidity</li> </ul>                                             | 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                                                                                                      |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> </ul>   | 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                                                                                                   |                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Shock load during operation</li> </ul>                                   | Tested to DIN IEC 60068-2-29: 50 m/s² (5 g), 30 ms, 100 shocks                                                                                                                       |
| <b>Operating systems</b>                                                                                        |                                                                                                                                                                                      |

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|--------------------------------|------------------------------------------------------------------------------------------------------|
| pre-installed operating system | Windows 7 Ultimate (Multi-Language) 32-bit / 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit |
| without operating system       | Yes; Optional                                                                                        |
| pre-installed operating system |                                                                                                      |
| • Windows 7                    | Yes; Ultimate 32 bit or 64 bit                                                                       |
| <b>Software</b>                |                                                                                                      |
| SIMATIC Software               | Optionally with pre-installed software bundle SIMATIC WinCC RT Advanced / WinAC RTX                  |
| <b>Dimensions</b>              |                                                                                                      |
| Width                          | 262 mm                                                                                               |
| Height                         | 139.7 mm                                                                                             |
| Depth                          | 50.5 mm                                                                                              |
| <b>last modified:</b>          | 12/1/2020           |