


SIMATIC IPC427E (Microbox PC), HD graphic onboard, 4x USB V3.0 (high current), PCIe (optional), Core i3-6102E; 3x Gbit Ethernet (IE/PN) Vertical mounting; 8 GB; 2x RS232/485; 1x PCIe (x4); Windows 10 IoT Enterprise 2016 LTSB (64-bit) for Celeron, i3 and i5; Without replaceable mass storage; 240 GB solid-state drive SATA Without SIMATIC software; 24 V DC industrial power supply

| General information                                       |  |
|---|--|
| Product type designation                                  | IPC427E  |
| 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  |
| Mains buffering   |  |
| • Mains/voltage failure stored energy time                | 20 ms  |
| Processor   |  |
| Processor type  | Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); Core i5-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB Cache, iAMT); Xeon E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB Cache, iAMT) |
| Chipset   | Intel C236 / Intel H110  |
| Graphic   |  |
| Graphics controller                                       | Intel HD graphics controller   |
| Drives  |  |
| Optical drives  | possible as external drive via USB   |
| Hard disk   | 2.5" SATA ≥ 320 GB   |
| SSD   | Yes; 128 / 240 / 480 GB  |
| Memory  |  |
| Type of memory  | DDR4-2400 SO-DIMM  |
| Main memory   | 4 / 8 / 16 GB, ECC optional  |
| Capacity of main memory, max.                             | 16 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                           | 1; CFast   |
| Interfaces  |  |
| Number of industrial Ethernet interfaces                  | 3; Ethernet (2x RJ45, optional 3x RJ45)  |
| USB port  | 4x USB 3.0   |
| Connection for keyboard/mouse                             | USB / USB  |
| serial interface  | Without / 2x COM (RS 232 / 485 / 422; switchable)  |
| Video interfaces  |  |
| • Graphics interface                                      | 2x DisplayPort   |
| Industrial Ethernet                                       |  |
| • Industrial Ethernet interface                           | 3x Ethernet (RJ45)   |
| — 100 Mbps  | Yes  |
| — 1000 Mbps   | Yes  |
| Interrupts/diagnostics/status information                 |  |
| Bus diagnostics   | Yes  |
| Integrated Functions                                      |  |
| Monitoring functions                                      |  |
| • Temperature monitoring                                  | Yes  |
| • Watchdog  | Yes  |
| • Status LEDs   | 1x power, 3x user  |

|   |  |
|---|--|
| • Fan   | No   |
| • Monitoring function via network                                   | Optional   |
| <b>EMC</b>  |  |
| 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                |  |
| • 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 degree of protection   | 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  |
| EAC (formerly Gost-R)   | 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; Optional  |
| 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  |
| <b>Ambient conditions</b>   |  |
| Ambient temperature during operation                                |  |
| • min.  | 0 °C   |
| • max.  | 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   |

| Operating systems   |   |
|---|---|
| pre-installed operating system  | Windows 7 Ultimate (Multi-Language) 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit, Windows 10 |
| without operating system  | Yes; Optional   |
| pre-installed operating system  |   |
| <ul style="list-style-type: none"> <li>• Windows 7</li> </ul>             | Yes; Ultimate 32 bit or 64 bit  |
| <ul style="list-style-type: none"> <li>• Windows 10 Enterprise</li> </ul> | Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI   |
| Software  |   |
| SIMATIC Software  | Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle |
| Dimensions  |   |
| Width   | 262 mm  |
| Height  | 139.7 mm  |
| Depth   | 55.5 mm   |
|   |   |
| last modified:  | 6/25/2021              |