

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; Without RS232/485, without PCIe; Windows 10 Enterprise 2019 LTSC (64-bit), MUI (en,de,fr,it,es), for Celeron, i3 and i5, Without replaceable mass storage; 320 GB HDD 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  |
| Rated value (DC)   | 24 V; PELV / SELV floating   |
| Mains buffering  |  |
| <ul style="list-style-type: none"> <li>Mains/voltage failure stored energy time</li> </ul>   | 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   |  |
| 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  |  |
| <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>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   |  |
| <ul style="list-style-type: none"> <li>Graphics interface</li> </ul>   | 2x DisplayPort   |
| 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> | 3x Ethernet (RJ45)<br>Yes<br>Yes   |
| Interrupts/diagnostics/status information  |  |
| LED status display   | 1x power, 3x user  |
| Bus diagnostics  | Yes  |
| Integrated Functions   |  |

|  |  |
|--|--|
| <b>Monitoring functions</b>  |  |
| • Temperature monitoring   | Yes  |
| • Watchdog   | 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  |
| <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  |
| <b>Use in hazardous areas</b>  |  |
| • ATEX Zone 2  | Yes; for inscription on device rating plate  |
| • ATEX Zone 22   | No   |
| • IECEx Zone 2   | Yes; for inscription on device rating plate  |
| • IECEx Zone 22  | No   |
| • CCC Ex   | Yes; for inscription on device rating plate  |
| • cULus Class I Zone 1   | No   |
| • cULus Class I Zone 2, Division 2   | Yes; for inscription on device rating plate  |
| • cULus Class II Division 2  | No   |
| • FM Class I Division 2  | No   |
| • FM Class II Division 2   | No   |
| <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>                                |  |
| • min.   | 0 °C   |

|   |  |
|---|--|
| • max.  | 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>                                      |  |
| 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  |
| <b>pre-installed operating system</b>                         |  |
| • Windows 7   | Yes; Ultimate 32 bit or 64 bit   |
| • Windows 10 Enterprise                                       | Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI  |
| <b>Software</b>   |  |
| Pre-installed software  | Edge SW (Simatic, Sinumerik), optional   |
| SIMATIC Software  | Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle  |
| <b>Dimensions</b>   |  |
| Width   | 262 mm   |
| Height  | 139.7 mm   |
| Depth   | 55.5 mm; without PCIe  |
| <b>Approvals / Certificates</b>                               |  |
| <b>General Product Approval</b>                               |  |



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**For use in hazardous locations**

**Maritime application**



[Miscellaneous](#)

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**Maritime application**



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