SIEMENS

## Data sheet 6AG4141-1BB47-0FA0

SIMATIC IPC427E (Microbox PC), HD graphic onboard, 4x USB V3.0 (high current), PCIE (optional), Celeron G3902E; 3x Gbit Ethernet (IE/PN); Mounting onto standard rail; 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

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| **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 | |
| ● 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** | |
| 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 version | 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** | |
| LED status display | 1x power, 3x user |
| Bus diagnostics | Yes |
| **Integrated Functions** | |
| Monitoring functions | |
| ● Temperature monitoring | Yes |

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| ● Watchdog | Yes |
| ● Fan | No |
| ● Monitoring function via network | Optional |
| **EMC** | |
| 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 |
| **Degree and class of protection** | |
| IP degree of protection | IP20 |
| **Standards, approvals, certificates** | |
| 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; 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 |
| 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 |
| **Ambient conditions** | |
| Ambient temperature during operation | |
| ● min. | 0 °C |
| ● max. | 55 °C |
| Ambient temperature during storage/transportation | |
| ● min. | -40 °C |
| ● max. | 70 °C |

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| **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** | |
| ● Windows 7 | Yes; Ultimate 32 bit or 64 bit |
| ● Windows 10 Enterprise | Yes; Windows 10 Enterprise 2016 LTSB, 64 bit, MUI |
| **Software** | |
| Pre-installed software | Edge SW (Simatic, Sinumerik), optional |
| 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; without PCIe |
| **Approvals / Certificates** | |

**General Product Approval**

CE EG-Konf. | UKCA | Manufacturer Declaration | UL | KC | RCM

**For use in hazardous locations** | **Marine / Shipping**

UL | ATEX | IECEx | Miscellaneous | CCC-Ex | ABS

**Marine / Shipping**

BUREAU VERITAS | DNV | LRS | NK / Nippon Kaiji Kyokai | CCS (China Classification Society) | KR

**Dangerous goods** | **Environment**

Dangerous goods information | Environmental Confirmations

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