SIEMENS

## Data sheet 6ES7647-8CB23-2AC1

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|---|---|
| | SIMATIC IPC227G 2x display ports; 3x 10/100/1000 Mbps Ethernet; 4x USB3.0, 2x M.2 expansion slot; 24 V DC industrial power supply Atom X6413E (4-core); 8 GB RAM; 2x COM; 256 GB Eco SSD; without hardware extension; Windows 10 Enterprise 2021 LTSC, 64-bit; MUI (en,de,fr,it,es); mounting onto standard rail; |
| **General information** | |
| Product type designation | IPC227G |
| **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 | Intel Atom X6211E / X6413E / X6414RE |
| Chipset | SoC |
| **Graphic** | |
| Graphics controller | Integrated |
| **Drives** | |
| SSD | Yes; 256 Eco |
| **Memory** | |
| Type of memory | DDR4 SO-DIMM |
| Main memory | 2 / 4 / 8 / 16 Gbyte; inband ECC optional |
| Capacity of main memory, max. | 16 Gbyte |
| **Hardware configuration** | |
| Slots | |
| ● free slots | 2x M.2 |
| **Interfaces** | |
| Number of industrial Ethernet interfaces | 3; 3x Ethernet (RJ45) |
| USB port | 4x USB 3.1 |
| Connection for keyboard/mouse | USB / USB |
| serial interface | without / 1x / 2x COM (RS 232 / 485 / 422; selectable) |
| Video interfaces | |
| ● Graphics interface | 2x DisplayPort |
| Industrial Ethernet | |
| ● Industrial Ethernet interface | 3x Ethernet (RJ45) |
| — 100 Mbps | Yes |
| — 1000 Mbps | Yes |
| **Protocols** | |
| Protocols (Ethernet) | |
| ● TCP/IP | Yes |
| **Integrated Functions** | |
| Monitoring functions | |
| ● Temperature monitoring | Yes |
| ● Watchdog | Yes |
| ● Status LEDs | 1x power, 3x user |
| ● 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 | |

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| ● 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 (5 kHz/100 kHz) acc. to IEC 61000-4-4; burst; length < 30 m; ±2 kV (5 kHz/100 kHz) acc. to IEC 61000-4-4; burst; length > 30 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 | IP40 |
| **Standards, approvals, certificates** | |
| CE mark | Yes |
| cULus | Yes |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| EAC (formerly Gost-R) | Yes |
| FCC | Yes |
| EMC | CE, EN 61000-6-4:2007, EN 61000-6-2:2005 |
| Dust protection | Protection against foreign bodies > 1 mm |
| **Ambient conditions** | |
| Ambient temperature during operation | |
| ● min. | 0 °C |
| ● max. | 55 °C |
| Ambient temperature during storage/transportation | |
| ● min. | -20 °C |
| ● max. | 60 °C |
| Relative humidity | |
| ● Relative humidity | Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5 % to 85 % at 30 °C (no condensation), storage / transport: 5 % to 95 % at 25 / 55 °C (no condensation) |
| Vibrations | |
| ● Vibration resistance during operation acc. to IEC 60068-2-6 | tested according to IEC 60068-2-6: 5 Hz to 8.4 Hz: 3.5 mm, 8.4 Hz to 200 Hz : 9.8m/s² (1 g) (except DIN Rail) 10 Hz to 58 Hz: 0.0375 mm, 58 Hz to 500 Hz: 4.9 m/s² (0.5 g) (DIN Rail) |
| Shock testing | |
| ● Shock load during operation | Tested according to IEC 60068-2-27: 150 m/s², 11 ms |
| **Operating systems** | |
| pre-installed operating system | Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI |
| without operating system | Yes; Optional |
| pre-installed operating system | |
| ● Windows 10 | Yes; Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI |
| ● Windows 10 Enterprise | Yes; Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI |
| **Dimensions** | |
| Width | 191 mm |
| Height | 100 mm |
| Depth | 64 mm |

**last modified:** 3/5/2024