

SIMATIC IPC227E (Nanobox PC); 1x display port; 2x 10/100/1000 Mbit/s Ethernet RJ45; 1 x USB3.0, 3 x USB2.0; CFast slot; 24 V DC industrial power supply Celeron N2807 (2C/2T) 4 GB RAM; Box: PCIE with COM 1/2 Windows 10 IoT Enterprise LTSB 2016, 64 bit, MUI (en, de, fr, it, es) 240 GB SSD; without SIMATIC software DIN rail mounting

| 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 Celeron N2807 / N2930, Intel Atom E3845 |
| Chipset | SoC |
| Graphic | |
| Graphics controller | Integrated |
| Drives | |
| Hard disk | 2.5" SATA ≥ 320 GB |
| SSD | Yes; 256 Eco / 240 / 480 GB |
| Memory | |
| Type of memory | DDR3L SO-DIMM |
| Main memory | 2 / 4 / 8 GB |
| 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 | |
| • free slots | 1x PCIe (x1) (optional) |
| • Number of PCI slots | 1; Optional |
| • Number of compact flash slots | 1; CFast |
| Interfaces | |
| Number of industrial Ethernet interfaces | 2; 2x Ethernet (RJ45) |
| USB port | 1x USB 3.0 / 3x USB 2.0 |
| Connection for keyboard/mouse | USB / USB |
| serial interface | Without / 2x COM (RS 232 / 422 / 485), selectable in the BIOS |
| Video interfaces | |
| • Graphics interface | 1x DisplayPort |
| Industrial Ethernet | |
| • Industrial Ethernet interface | 2x Ethernet (RJ45) |
| — 100 Mbps | Yes |
| — 1000 Mbps | 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 | |

| | |
|---|---|
| <ul style="list-style-type: none"> 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 | |
| <ul style="list-style-type: none"> Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m | <ul style="list-style-type: none"> ±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 ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m ±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"> asymmetric interference symmetric interference | <ul style="list-style-type: none"> ±2 kV acc. to IEC 61000-4-5, surge asymmetric ±1 kV acc. to IEC 61000-4-5, surge symmetric |
| Interference immunity to magnetic fields | |
| <ul style="list-style-type: none"> Interference immunity to magnetic fields at 50 Hz | 100 A/m; to IEC 61000-4-8 |
| Emission of conducted and non-conducted interference | |
| <ul style="list-style-type: none"> 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 |
| UL approval | Yes |
| <ul style="list-style-type: none"> UL 508 | Yes |
| cULus | Yes |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| FCC | Yes |
| EMC | CE, EN 61000-6-4:2007, EN 61000-6-2:2005 |
| Dust protection | Protection against foreign bodies > 1 mm |
| Use in hazardous areas | |
| <ul style="list-style-type: none"> ATEX Zone 2 IECEx Zone 2 cULus Class I Zone 2, Division 2 | <ul style="list-style-type: none"> Yes; Optional Yes; Optional Yes; Optional |
| Marine approval | |
| <ul style="list-style-type: none"> Germanischer Lloyd (GL) American Bureau of Shipping (ABS) Bureau Veritas (BV) Det Norske Veritas (DNV) Korean Register of Shipping (KRS) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (Class NK) Chinese Classification Society (CCS) | <ul style="list-style-type: none"> Yes Yes Yes Yes Yes Yes Yes Yes |
| Ambient conditions | |
| Ambient temperature during operation | |
| <ul style="list-style-type: none"> min. max. | <ul style="list-style-type: none"> 0 °C; -20 °C as option 60 °C |
| Ambient temperature during storage/transportation | |
| <ul style="list-style-type: none"> min. max. | <ul style="list-style-type: none"> -20 °C 60 °C |
| Relative humidity | |
| <ul style="list-style-type: none"> 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 | |
| <ul style="list-style-type: none"> 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 ² (1 g) |
| Shock testing | |
| <ul style="list-style-type: none"> Shock load during operation | Tested according to IEC 60068-2-27: 150 m/s ² , 11 ms |
| Operating systems | |
| pre-installed operating system | Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 E/P, 32-bit / 64-bit |
| Additional info on operating system | optional: SIMATIC Industrial OS |
| without operating system | Yes; Optional |
| pre-installed operating system | |

- Windows 7
- Windows 10
- Windows 10 Enterprise

Yes; Ultimate 32 bit or 64 bit
 Yes; Windows 10 IoT Enterprise 2016 LTSC, 64bit, MUI
 Yes; Windows 10 IoT Enterprise 2019 LTSC, 64 bit, MUI

Software

| | |
|------------------|---|
| SIMATIC Software | Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle |
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Dimensions

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|--------|--------|
| Width | 191 mm |
| Height | 100 mm |
| Depth | 60 mm |

last modified: 3/10/2021 