

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 N2930 (4C/4T) 4 GB RAM; Box: PCIE with COM 1/2 without operating system 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 | |
| <ul style="list-style-type: none"> 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 | |
| <ul style="list-style-type: none"> free slots | 1x PCIe (x1) (optional) |
| <ul style="list-style-type: none"> Number of PCI slots | 1; Optional |
| <ul style="list-style-type: none"> 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 | |
| <ul style="list-style-type: none"> Graphics interface | 1x DisplayPort |
| Industrial Ethernet | |
| <ul style="list-style-type: none"> Industrial Ethernet interface <ul style="list-style-type: none"> — 100 Mbps — 1000 Mbps | 2x Ethernet (RJ45) Yes Yes |
| Integrated Functions | |
| Monitoring functions | |
| <ul style="list-style-type: none"> Temperature monitoring Watchdog Status LEDs Fan Monitoring function via network | Yes Yes 1x power, 3x user No Optional |
| EMC | |
| Interference immunity against discharge of static electricity | |
| <ul style="list-style-type: none"> 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 | ±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 |
| <ul style="list-style-type: none"> Interference immunity on signal cables >30m | ±2 kV acc. to IEC 61000-4-5, surge, length > 30 m |
| <ul style="list-style-type: none"> 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 | |
| <ul style="list-style-type: none"> asymmetric interference | ±2 kV acc. to IEC 61000-4-5, surge asymmetric |
| <ul style="list-style-type: none"> symmetric interference | ±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 | Yes; Optional |
| <ul style="list-style-type: none"> IECEx Zone 2 | Yes; Optional |
| <ul style="list-style-type: none"> cULus Class I Zone 2, Division 2 | Yes; Optional |
| Marine approval | |
| <ul style="list-style-type: none"> Germanischer Lloyd (GL) | Yes |
| <ul style="list-style-type: none"> American Bureau of Shipping (ABS) | Yes |
| <ul style="list-style-type: none"> Bureau Veritas (BV) | Yes |
| <ul style="list-style-type: none"> Det Norske Veritas (DNV) | Yes |
| <ul style="list-style-type: none"> Korean Register of Shipping (KRS) | Yes |
| <ul style="list-style-type: none"> Lloyds Register of Shipping (LRS) | Yes |
| <ul style="list-style-type: none"> Nippon Kaiji Kyokai (Class NK) | Yes |
| <ul style="list-style-type: none"> Chinese Classification Society (CCS) | Yes |
| Ambient conditions | |
| Ambient temperature during operation | |
| <ul style="list-style-type: none"> min. | 0 °C; -20 °C as option |
| <ul style="list-style-type: none"> max. | 60 °C |
| Ambient temperature during storage/transportation | |
| <ul style="list-style-type: none"> min. | -20 °C |
| <ul style="list-style-type: none"> max. | 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

Dimensions

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

last modified: 6/25/2021 