

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 with NVRAM Box: PCIE without COM without operating system 320 GB HDD; without SIMATIC software DIN rail mounting

| General information   |  |
|---|--|
| Product type designation  | IPC227E  |
| 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  |
| 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  |
| • 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 |

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|---|--|
| <b>Interference immunity against high-frequency electromagnetic fields</b>  |  |
| <ul style="list-style-type: none"> <li>Interference immunity against high frequency radiation</li> </ul>  | 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>  |  |
| <ul style="list-style-type: none"> <li>Interference immunity on supply cables</li> <li>Interference immunity on signal cables &gt;30m</li> <li>Interference immunity on signal cables &lt; 30m</li> </ul>   | ±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<br>±2 kV acc. to IEC 61000-4-5, surge, length > 30 m<br>±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>  |  |
| <ul style="list-style-type: none"> <li>asymmetric interference</li> <li>symmetric interference</li> </ul>   | ±2 kV acc. to IEC 61000-4-5, surge asymmetric<br>±1 kV acc. to IEC 61000-4-5, surge symmetric  |
| <b>Interference immunity to magnetic fields</b>   |  |
| <ul style="list-style-type: none"> <li>Interference immunity to magnetic fields at 50 Hz</li> </ul>   | 100 A/m; to IEC 61000-4-8  |
| <b>Emission of conducted and non-conducted interference</b>   |  |
| <ul style="list-style-type: none"> <li>Interference emission via line/AC current cables</li> </ul>  | 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   | IP40   |
| <b>Standards, approvals, certificates</b>   |  |
| CE mark   | Yes  |
| UL approval   | Yes  |
| <ul style="list-style-type: none"> <li>UL 508</li> </ul>  | 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   |
| <b>Use in hazardous areas</b>   |  |
| <ul style="list-style-type: none"> <li>ATEX Zone 2</li> <li>IECEx Zone 2</li> <li>cULus Class I Zone 2, Division 2</li> </ul>   | Yes; Optional<br>Yes; Optional<br>Yes; Optional  |
| <b>Marine approval</b>  |  |
| <ul style="list-style-type: none"> <li>Germanischer Lloyd (GL)</li> <li>American Bureau of Shipping (ABS)</li> <li>Bureau Veritas (BV)</li> <li>Det Norske Veritas (DNV)</li> <li>Korean Register of Shipping (KRS)</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (Class NK)</li> <li>Chinese Classification Society (CCS)</li> </ul> | Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes   |
| <b>Ambient conditions</b>   |  |
| <b>Ambient temperature during operation</b>   |  |
| <ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>  | 0 °C; -20 °C as option<br>60 °C  |
| <b>Ambient temperature during storage/transportation</b>  |  |
| <ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>  | -20 °C<br>60 °C  |
| <b>Relative humidity</b>  |  |
| <ul style="list-style-type: none"> <li>Relative humidity</li> </ul>   | 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)  |
| <b>Vibrations</b>   |  |
| <ul style="list-style-type: none"> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> </ul>   | 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>  |  |
| <ul style="list-style-type: none"> <li>Shock load during operation</li> </ul>   | Tested according to IEC 60068-2-27: 150 m/s <sup>2</sup> , 11 ms   |
| <b>Operating systems</b>  |  |
| 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   |   |
| <ul style="list-style-type: none"> <li>• Windows 7</li> <li>• Windows 10</li> <li>• Windows 10 Enterprise</li> </ul> | Yes; Ultimate 32 bit or 64 bit<br>Yes; Windows 10 IoT Enterprise 2016 LTSC, 64bit, MUI<br>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  |

**Approvals / Certificates**

**General Product Approval**

[Miscellaneous](#)



[Manufacturer Declaration](#)



**General Product Approval**



[BIS CRS](#)

[China RoHS](#)



**For use in hazardous locations**      **Maritime application**



[Miscellaneous](#)



**Maritime application**      **Dangerous goods**



[NK / Nippon Kaiji Kyokai](#)

[CCS \(China Classification Society\)](#)

[KR \(Korean Register of Shipping\)](#)

[Dangerous goods information](#)

[Test Summary Report UN 38.3](#)

**Dangerous goods**      **Environment**

[Test Summary Report UN 38.3](#)

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