

SIMATIC IPC 477E 19" Touch (1366 x 768); with front USB; 4 USB (back), Ethernet (10/100/1000); Core i3-6102E; 3x Gbit Ethernet (IE/PN); 4 GB and NVRAM; 2x RS 232/RS 485; without PCIe; Windows 10 IoT Enterprise 2016 LTSC (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

| General information | |
|--|--|
| Product type designation | IPC477E |
| Display | |
| Design of display | 19" TFT touch |
| Screen diagonal | 18.5 in |
| Resolution (pixels) | |
| • Horizontal image resolution | 1 366 pixel |
| • Vertical image resolution | 768 pixel |
| Backlighting | |
| • MTBF backlighting (at 25 °C) | 50 000 h |
| Control elements | |
| Input device | |
| • Mouse, at front | No |
| Keyboard fonts | |
| • Function keys | No |
| • alphanumeric keyboard | No |
| Touch operation | |
| • Design as touch screen | Yes; analog, resistive |
| Installation type/mounting | |
| Mounting | For horizontal and vertical mounting |
| Design | Panel PC, built-in unit |
| central design | Yes |
| distributed design | No |
| Mounting in portrait format possible | Yes |
| Supply voltage | |
| Type of supply voltage | 100/240 V AC (autorange) 50/60 Hz; optional 24 V DC |
| Line frequency | |
| • Rated value 50 Hz | Yes |
| • Rated value 60 Hz | Yes |
| Mains buffering | |
| • Mains/voltage failure stored energy time | 20 ms |
| Power loss | |
| In full configuration | 24 V DC: max. 65 W, PCIe APGB additionally 5 W |
| 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 | |
| <ul style="list-style-type: none"> • free slots • Number of PCI slots • Number of compact flash slots | 1x PCIe (slot with card retainer), 1x slot for CFAST card 1; Optional 1; CFAST |
| Interfaces | |
| Number of industrial Ethernet interfaces | 3; 3x Ethernet (RJ45) |
| USB port | 4x USB 3.0 |
| Connection for keyboard/mouse | USB / USB |
| Video interfaces | |
| <ul style="list-style-type: none"> • Graphics interface | 2x DisplayPort |
| Industrial Ethernet | |
| <ul style="list-style-type: none"> • Industrial Ethernet interface <ul style="list-style-type: none"> — 100 Mbps — 1000 Mbps | 3x Ethernet (RJ45) Yes Yes |
| Interrupts/diagnostics/status information | |
| Bus diagnostics | Yes |
| Integrated Functions | |
| Monitoring functions | |
| <ul style="list-style-type: none"> • Temperature monitoring • Watchdog • Fan • Monitoring function via network | Yes Yes 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, 80 ... 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m, 2 ... 2.7 GHz; 10 V, 10 kHz ... 80 MHz 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 | ±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 | ±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 (at the front) | IP65 |
| IP (rear) | IP20 |
| Standards, approvals, certificates | |
| CE mark | Yes |
| CSA approval | Yes |
| UL approval | Yes |
| <ul style="list-style-type: none"> • UL 508 | Yes |
| cULus | Yes |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| EAC (formerly Gost-R) | Yes |
| FCC | Yes |
| EMC | CE, EN 61000-6-4; CISPR 22:2004 Class A; FCC Class A |
| Use in hazardous areas | |

| | | |
|---|---|-----------------------|
| <ul style="list-style-type: none"> • ATEX Zone 2 • IECEx Zone 2 • cULus Class I Zone 2, Division 2 | <p>Yes; Optional, only with Multitouch</p> <p>Yes; Optional, only with Multitouch</p> <p>Yes; Optional, only with Multitouch</p> | |
| 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) | <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> | |
| Ambient conditions | | |
| Ambient temperature during operation | | |
| <ul style="list-style-type: none"> • min. • max. | <p>0 °C</p> <p>45 °C</p> | |
| Ambient temperature during storage/transportation | | |
| <ul style="list-style-type: none"> • min. • max. | <p>-20 °C</p> <p>60 °C</p> | |
| Relative humidity | | |
| <ul style="list-style-type: none"> • Relative humidity | Tested according to IEC 60068-2-78, IEC 60068-2-30: 5% to 80% at 25 °C (no condensation) | |
| Vibrations | | |
| <ul style="list-style-type: none"> • Vibration resistance during operation acc. to IEC 60068-2-6 | IEC 60068-2-6; 5 Hz to 9 Hz: 3.5 mm; 9 Hz to 500 Hz: 9.8 m/s ² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s ² (hard disk) | |
| Shock testing | | |
| <ul style="list-style-type: none"> • Shock load during operation | IEC 60068-2-27; 150 m/s ² , 11 ms (without hard disk); 50 m/s ² , 30 ms (with hard disk) | |
| 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 | | |
| <ul style="list-style-type: none"> • Windows 7 • Windows 10 Enterprise | <p>Yes; Ultimate 64 bit</p> <p>Yes; Windows 10 Enterprise 2016 LTSB, 64 bit, MUI</p> | |
| Software | | |
| SIMATIC Software | Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle | |
| Dimensions | | |
| Width of the housing front | 483 mm | |
| Height of housing front | 337 mm | |
| Mounting cutout, width | 465 mm | |
| Mounting cutout, height | 319 mm | |
| mounting depth | 76 mm | |
| Weights | | |
| Weight, approx. | 8.4 kg | |
| Classifications | | |
| | Version | Classification |
| eClass | 14 | 19-20-01-03 |
| eClass | 12 | 19-20-01-03 |
| eClass | 9.1 | 19-20-01-03 |
| eClass | 9 | 19-20-01-03 |
| eClass | 8 | 27-24-23-01 |
| eClass | 7.1 | 27-24-23-01 |
| eClass | 6 | 27-24-23-01 |
| ETIM | 10 | EC001414 |
| ETIM | 9 | EC001414 |
| ETIM | 8 | EC001414 |
| ETIM | 7 | EC001414 |

Approvals / Certificates

General Product Approval

Maritime application

[Miscellaneous](#)



[BIS CRS](#)

[China RoHS](#)



Maritime application

Dangerous goods



[Test Summary Report UN 38.3](#)

[Dangerous goods information](#)

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