

SIMATIC IPC 477E 15" Multitouch (1366 x 768); 4 USB (back), Ethernet (10/100/1000); Core i5-6442EQ; 3x Gbit Ethernet (IE/PN); 8 GB; 2x RS232/RS485; 1x PCIe (x4); without operating system; 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                          | 15" TFT multi-touch  |
| Screen diagonal                            | 15.6 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 multi-touch screen             | Yes; Projective-capacitive   |
| 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. 88 W, 110 ... 230 V AC   |
| 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   |
| <b>Hardware configuration</b>   |  |
| Slots   |  |
| <ul style="list-style-type: none"> <li>• free slots</li> <li>• Number of PCI slots</li> <li>• Number of compact flash slots</li> </ul>  | 1x PCIe (slot with card retainer), 1x slot for CFAST card<br>1; Optional<br>1; CFast   |
| <b>Interfaces</b>   |  |
| 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"> <li>• Graphics interface</li> </ul>  | 2x DisplayPort   |
| Industrial Ethernet   |  |
| <ul style="list-style-type: none"> <li>• Industrial Ethernet interface               <ul style="list-style-type: none"> <li>— 100 Mbps</li> <li>— 1000 Mbps</li> </ul> </li> </ul>                              | 3x Ethernet (RJ45)<br>Yes<br>Yes   |
| <b>Interrupts/diagnostics/status information</b>  |  |
| Bus diagnostics   | Yes  |
| <b>Integrated Functions</b>   |  |
| Monitoring functions  |  |
| <ul style="list-style-type: none"> <li>• Temperature monitoring</li> <li>• Watchdog</li> <li>• Fan</li> <li>• Monitoring function via network</li> </ul>  | Yes<br>Yes<br>No<br>Optional   |
| <b>EMC</b>  |  |
| Interference immunity against discharge of static electricity   |  |
| <ul style="list-style-type: none"> <li>• Interference immunity against discharge of static electricity</li> </ul>   | ±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"> <li>• Interference immunity against high frequency radiation</li> </ul>  | 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"> <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 |
| Interference immunity against voltage surge   |  |
| <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  |
| Interference immunity to magnetic fields  |  |
| <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  |
| Emission of conducted and non-conducted interference  |  |
| <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 (at the front)   | IP65   |
| IP (rear)   | IP20   |
| <b>Standards, approvals, certificates</b>   |  |
| CE mark   | Yes  |
| CSA approval  | 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  |
| 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"> <li>• ATEX Zone 2</li> </ul>   | Yes; Optional, only with Multitouch  |

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| • IECEx Zone 2                      | Yes; Optional, only with Multitouch |
| • cULus Class I Zone 2, Division 2  | Yes; Optional, only with Multitouch |
| <b>Marine approval</b>              |                                     |
| • Germanischer Lloyd (GL)           | Yes                                 |
| • American Bureau of Shipping (ABS) | Yes                                 |
| • Bureau Veritas (BV)               | Yes                                 |
| • Det Norske Veritas (DNV)          | Yes                                 |
| • Korean Register of Shipping (KRS) | Yes                                 |
| • Lloyds Register of Shipping (LRS) | Yes                                 |
| • Nippon Kaiji Kyokai (Class NK)    | Yes                                 |

**Ambient conditions**

|   |       |
|---|-------|
| <b>Ambient temperature during operation</b> |       |
| • min.                                      | 0 °C  |
| • max.                                      | 45 °C |

|  |        |
|--|--------|
| <b>Ambient temperature during storage/transportation</b> |        |
| • min.   | -20 °C |
| • max.   | 60 °C  |

|                          |  |
|--------------------------|--|
| <b>Relative humidity</b> |  |
| • Relative humidity      | Tested according to IEC 60068-2-78, IEC 60068-2-30: 5% to 80% at 25 °C (no condensation) |

|   |   |
|---|---|
| <b>Vibrations</b>   |   |
| • 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 <sup>2</sup> (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s <sup>2</sup> (hard disk) |

|                               |  |
|-------------------------------|--|
| <b>Shock testing</b>          |  |
| • Shock load during operation | IEC 60068-2-27; 150 m/s <sup>2</sup> , 11 ms (without hard disk); 50 m/s <sup>2</sup> , 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   |
| <b>pre-installed operating system</b> |   |
| • Windows 7                           | Yes; Ultimate 64 bit  |
| • Windows 10 Enterprise               | Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI   |

**Software**

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

**Dimensions**

|                            |        |
|----------------------------|--------|
| Width of the housing front | 398 mm |
| Height of housing front    | 257 mm |
| Mounting cutout, width     | 382 mm |
| Mounting cutout, height    | 241 mm |
| Overall depth              | 76 mm  |

**Weights**

|                 |        |
|-----------------|--------|
| Weight, approx. | 5.2 kg |
|-----------------|--------|

**Approvals / Certificates**

|                                 |                                       |
|---------------------------------|---------------------------------------|
| <b>General Product Approval</b> | <b>For use in hazardous locations</b> |
|---------------------------------|---------------------------------------|

[Miscellaneous](#)



[BIS CRS](#)



[Type Examination Certificate](#)

**Maritime application**



[NK / Nippon Kaiji Kyokai](#)

last modified:

12/1/2020

