

SIMATIC IPC 477E 15" touch (1280 x 800); with front USB; 4 USB (back), Ethernet (10/100/1000); Core i5-6442EQ; 3x Gbit Ethernet (IE/PN); 8 GB; without RS 232/RS485; without PCIe; Win Embedded Standard 7 SP1, English, 64-bit; Without replaceable mass storage; 128 GB solid-state drive SATA; WinCC RT Advanced V15, 512PT; WinCC Recipes + Logging; 24 V DC industrial power supply

### General information

Product type designation	IPC477E
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### Display

Design of display	15" TFT touch
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Screen diagonal	15.6 in
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#### Resolution (pixels)

- |                               |             |
|-------------------------------|-------------|
| • Horizontal image resolution | 1 280 Pixel |
| • Vertical image resolution   | 800 Pixel   |

#### Backlighting

- |                                |          |
|--------------------------------|----------|
| • MTBF backlighting (at 25 °C) | 50 000 h |
|--------------------------------|----------|

### Control elements

#### Input device

- |                   |                       |
|-------------------|-----------------------|
| • Mouse, at front | Front USB 2.0 (500mA) |
|-------------------|-----------------------|

#### 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
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Design	Panel PC, built-in unit
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central design	Yes
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distributed design	No
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Mounting in portrait format possible	Yes
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### Supply voltage

Type of supply voltage	100/240 V AC (autorange) 50/60 Hz; optional 24 V DC
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#### 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 APcB 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"> <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 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
serial interface	Without / 2x COM (RS 232 / 422 / 485), selectable in the BIOS
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) Yes Yes
Interrupts/diagnostics/status information	
Bus diagnostics	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
Interference immunity against high-frequency electromagnetic fields	
• 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	
• 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
• Interference immunity on signal cables >30m	±2 kV acc. to IEC 61000-4-5, surge, length > 30 m
• 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	
• asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric
• symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity to magnetic fields	
• Interference immunity to magnetic fields at 50 Hz	100 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
• 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 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	

• ATEX Zone 2	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
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• Ambient temperature during operation	0 °C to 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)
<b>Operating systems</b>	
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
<b>Software</b>	
SIMATIC Software	Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle
<b>Dimensions</b>	
Width of the housing front	415 mm
Height of housing front	310 mm
Mounting cutout, width	396 mm
Mounting cutout, height	291 mm

Overall depth	76 mm
• additional mounting depth (optical drive)	26 mm
<b>Weights</b>	
Weight, approx.	6.8 kg
<b>last modified:</b>	10/07/2020