

SIMATIC IPC 477E 15" touch (1280 x 800); with front USB; 4 USB (back), Ethernet (10/100/1000); Celeron G3902E; 3x Gbit Ethernet (IE/PN); 4 GB without RS 232/RS485; without PCIe; Windows 10 IoT Enterprise 2016 LTSB (64-bit) for Celeron, i3 and i5; Without replaceable mass storage; 256 GB Eco SSD; Without SIMATIC software; 24 V DC industrial power supply

General information	
Product type designation	IPC477E
Display	
Design of display	15" TFT touch
Screen diagonal	15.6 in
Resolution (pixels)	
<ul style="list-style-type: none"> Horizontal image resolution Vertical image resolution 	1 280 pixel 800 pixel
Backlighting	
<ul style="list-style-type: none"> MTBF backlighting (at 25 °C) 	50 000 h
Control elements	
Input device	
<ul style="list-style-type: none"> Mouse, at front 	Front USB 2.0 (500mA)
Keyboard fonts	
<ul style="list-style-type: none"> Function keys alphanumeric keyboard 	No No
Touch operation	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> Rated value 50 Hz Rated value 60 Hz 	Yes Yes
Mains buffering	
<ul style="list-style-type: none"> 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

- free slots 1x PCIe (slot with card retainer), 1x slot for CFAST card
- Number of PCI slots 1; Optional
- Number of compact flash slots 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

- Graphics interface 2x DisplayPort

Industrial Ethernet

- Industrial Ethernet interface 3x Ethernet (RJ45)
 - 100 Mbps Yes
 - 1000 Mbps 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

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) 	<ul style="list-style-type: none"> Yes Yes Yes Yes Yes Yes Yes
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> • Ambient temperature during operation 	0 °C to 45 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. • max. 	<ul style="list-style-type: none"> -20 °C 60 °C
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 	<ul style="list-style-type: none"> Yes; Ultimate 64 bit 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	415 mm
Height of housing front	310 mm
Mounting cutout, width	396 mm
Mounting cutout, height	291 mm
Overall depth	76 mm
<ul style="list-style-type: none"> • additional mounting depth (optical drive) 	26 mm
Weights	
Weight, approx.	6.8 kg
last modified:	12/1/2020 