

SIMATIC IPC 477E 19" Multitouch (1366 x 768); 4 USB (back), Ethernet (10/100/1000); Celeron G3902E; 3x Gbit Ethernet (IE/PN); 8 GB and NVRAM; 2x RS232/RS485; 1x PCIe (x4); Win Embedded Standard 7 P SP1, MUI, 64-bit, multi-touch; CFAST 128 GB, (only as option with operating system/SW, if no internal mass storage); without internal mass storage; Without SIMATIC software; 24 V DC industrial power supply

General information	
Product type designation	IPC477E
Display	
Design of display	19" TFT multi-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	
• 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. 82 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
Storage	
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 • 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	
• Graphics interface	2x DisplayPort
Industrial Ethernet	
• Industrial Ethernet interface — 100 Mbps — 1000 Mbps	3x Ethernet (RJ45) Yes Yes
Interrupts/diagnostics/status information	
Bus diagnostics	Yes
Integrated Functions	
Monitoring functions	
• Temperature monitoring • Watchdog • Fan • Monitoring function via network	Yes Yes No 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 • 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	
• 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	
• 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 • IECEx Zone 2 • cULus Class I Zone 2, Division 2	Yes; Optional, only with Multitouch																																				
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Marine approval																																					
• 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																																					
Ambient temperature during operation																																					
• min.	0 °C																																				
• max.	45 °C																																				
Ambient temperature during storage/transportation																																					
• min.	-20 °C																																				
• max.	60 °C																																				
Relative humidity																																					
• Relative humidity	Tested according to IEC 60068-2-78, IEC 60068-2-30: 5% to 80% at 25 °C (no condensation)																																				
Vibrations																																					
• 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/s² (with SSD or CFast); 10 Hz to 58 Hz: 0.0375 mm; 58 Hz to 200 Hz: 4.9 m/s² (hard disk)																																				
Shock testing																																					
• Shock load during operation	IEC 60068-2-27; 150 m/s², 11 ms (without hard disk); 50 m/s², 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																																				
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• 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	464 mm																																				
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Mounting cutout, width	448 mm																																				
Mounting cutout, height	278 mm																																				
mounting depth	76 mm																																				
Weights																																					
Weight, approx.	6.6 kg																																				
Classifications																																					
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last modified:

11/24/2025 