

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 2x RS 232/RS 485; without PCIe; Win Embedded Standard 7 SP1, English, 64-bit; Without replaceable mass storage; 240 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	19" TFT touch
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Screen diagonal	18.5 in
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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 |
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Installation type/mounting

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 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 Gbyte, 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
serial interface	Without / 2x COM (RS 232 / 422 / 485), selectable in the BIOS
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	

• 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	
• 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	
• Ambient temperature during operation	0 °C to 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/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	
• 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	
• 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
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Dimensions

Width of the housing front	483 mm
Height of housing front	337 mm
Mounting cutout, width	464 mm
Mounting cutout, height	318 mm
Overall depth	76 mm

Weights

Weight, approx.

8.4 kg

last modified:

07/06/2020