

SIMATIC IPC677E(Panel PC), UHD graphic onboard; DP/DVI-D; 3x Gigabit Ethernet (IE/PN); 6x USB 3.1 Gen. 2; 1x serial (COM 1); RAID controller onboard; Watchdog, temperature and fan monitoring;



Figure similar

General information	
Product type designation	IPC677E
Installation type/mounting	
Mounting	For horizontal and vertical mounting
Design	Panel PC, built-in unit
Supply voltage	
Type of supply voltage	100/240 V AC (autorange); 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
Processor	
Processor type	Celeron G4900 (2C/2T, 3.1 GHz, 2 MB cache; VT-d); Core i3-8100 (4C/4T, 3.6 GHz, 6 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d, AMT)
Chipset	Intel C246
Graphic	
Graphics controller	Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron)
Drives	
Hard disk	2.5" SATA ≥ 320 GB
SSD	Yes; SSD M.2 NVMe 512 GB; SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB in removable drive bay
Storage	
Type of memory	DDR4-2666 DIMM
Main memory	4 / 8 / 16 / 32 / 64 GB
Capacity of main memory, max.	64 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
Hardware configuration	
Slots	
• free slots	2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); with card retainer
• Number of PCI slots	2; Optional
• Number of PCIe slots	2; Optional
Interfaces	
Number of industrial Ethernet interfaces	3; 3x Ethernet (RJ45)
USB port	6x USB 3.1 Gen. 2 (2x type C)
Connection for keyboard/mouse	USB / USB

serial interface	1x COM
Video interfaces	
• Graphics interface	2x DisplayPort; 1x DVI-D
Industrial Ethernet	
• Industrial Ethernet interface	3x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
Interrupts/diagnostics/status information	
LED status display	1x power, 3x user
Integrated Functions	
Monitoring functions	
• Temperature monitoring	Yes
• Watchdog	Yes
• Fan	Yes
• 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 for 80 ... 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM 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
UL approval	Yes
cULus	Yes; UL 61010-2-201 Second Edition; CAN/CSA-C22.2 No. 61010-2-201 Second Edition
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
FCC	Yes
EMC	CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005
Use in hazardous areas	
• ATEX Zone 2	Yes; Optional
• ATEX Zone 22	Yes; Optional
• IECEx Zone 2	Yes; Optional
• IECEx Zone 22	Yes; Optional
• CCC Ex	Yes; Optional
• cULus Class I Zone 2, Division 2	Yes; Optional
• cULus Class II Division 2	Yes; Optional
Marine approval	
• American Bureau of Shipping (ABS)	Yes; Only with SSD
• Bureau Veritas (BV)	Yes; Only with SSD

- Det Norske Veritas (DNV) Yes; Only with SSD
- Korean Register of Shipping (KRS) Yes; Only with SSD
- Lloyds Register of Shipping (LRS) Yes; Only with SSD
- Nippon Kaiji Kyokai (Class NK) Yes; Only with SSD
- Chinese Classification Society (CCS) Yes; Only with SSD

Ambient conditions

Ambient temperature during operation	
• min.	5 °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: Operation: 5% to 80% at 25 °C (no condensation), Storage: 5% to 95% at 25 °C (no condensation)
Vibrations	
• Vibration resistance during operation acc. to IEC 60068-2-6	tested according to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm; 58 Hz to 500 Hz 9.8 m/s ² (1 g)
Shock testing	
• Shock load during operation	Tested to DIN IEC 60068-2-29: 50 m/s ² (5 g), 30 ms, 100 shocks

Operating systems

pre-installed operating system	Windows 10 Enterprise 2016 LTSP or 2019 LTSC or 2021 LTSC 64 bit, MUI
without operating system	Yes; Optional
pre-installed operating system	
• Windows 10 Enterprise	Yes; Windows 10 Enterprise 2016 LTSP or 2019 LTSC or 2021 LTSC 64 bit, MUI

Classifications

	Version	Classification
eClass	14	19-20-01-03
eClass	12	19-20-01-03
eClass	9.1	19-20-01-03
eClass	9	19-20-01-03
eClass	8	27-24-23-01
eClass	7.1	27-24-23-01
eClass	6	27-24-23-01
ETIM	10	EC001414
ETIM	9	EC001414
ETIM	8	EC001414
ETIM	7	EC001414
IDEA	4	6607
UNSPSC	15	43-21-15-06

Approvals / Certificates

General Product Approval



[Miscellaneous](#)



General Product Approval For use in hazardous locations



[BIS CRS](#)

[China RoHS](#)



[CCC-Ex](#)

For use in hazardous locations Maritime application



[Type Examination Certificate](#)



Maritime application other Dangerous goods



[NK / Nippon Kaiji Kyokai](#)

[CCS \(China Classification Society\)](#)

[KR \(Korean Register of Shipping\)](#)



[Dangerous goods information](#)

Environment

[Environmental Confirmations](#)

[Environmental Confirmations](#)

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