SIEMENS

Data sheet

no longer available SIMATIC HMI IPC677C (Panel PC),
2x10/100/1000 Mbit/s Ethernet; 4x USB V2.0, 1x serial (COM1);
Watchdog, temperature and Fan monitoring; RAID controller
onboard; 12" Touch; 800x 600

General information

Product type designation	IPC677C

Display

Design of display	12" TFT touch
Screen diagonal	12 in
Resolution (pixels)	
• Horizontal image resolution	800 Pixel
• Vertical image resolution	600 Pixel
General features	
• Expansion components	Uninterruptible power supply (USP), SIMATIC NET communication modules
Backlighting	
• MTBF backlighting (at 25 °C)	50 000 h

Control elements

Keyboard fonts	
• Function keys	No
Touch operation	
• Design as touch screen	Yes

Installation type/mounting

Mounting	For horizontal and vertical mounting
Design	Panel PC, built-in unit
central design	Yes
distributed design	No
maximum permissible installation angle +/-	20°

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

Power loss

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In full configuration	140W max. (15W included per slot)

Processor

Processor type	Core i7-610E (2C/4T, 2.53 GHz, TB, HT, VT, AMT, 4MB cache); Core i3-330E (2C/4T, 2.13 GHz, HT, VT, 3MB cache); Celeron P4505 (2C/2T, 1.86 GHz, VT, 2MB cache);
Chipset	Intel QM57 Express Chipset

Graphic

Graphics controller	Intel HD graphics controller

Drives

Optical drives	Optional: DVD±R±RW combi drive; on rear, can be operated from side
Hard disk	3.5" SATA ≥ 250 GB, optional ≥ 500 GB; RAID1 2x 2.5" SATA ≥ 320 GB; all internal drives are vibration-damped
SSD	Yes; ≥ 160 GB optional

Memory

Type of memory	DDR3 1066 DIMM
Main memory	1 GB to 8 GB DDR3 1066 DIMM, ECC optional
Capacity of main memory, max.	8 Gbyte

Data areas and their retentivity

Retentive data area (incl. timers, counters, flags), max.	2 Mbyte; 128 KB can be stored in the buffer time; optional

Hardware configuration

Slots

• free slots	2x PCI or 1x PCI & 1x PCIe (x16) (slots with card retainer), 1x slot for CompactFlash Card
• Number of PCI slots	2
• Number of PCI slots	1
• Number of compact flash slots	1

Interfaces

PROFIBUS/MPI	Optionally onboard, isolated, max. 12 Mbps, no plug-in card necessary, CP 5611-A2-compatible
Number of PROFINET interfaces	3; Optional
USB port	1x at front, 4x at rear, USB 2.0 (500 mA)
Connection for keyboard/mouse	USB / USB
serial interface	COM1: 1 x V.24 (RS232)
parallel interface	optional LPT1

Video interfaces

• Graphics interface	DVI-I usable for additional display unit (VGA via adapter); color depth 32 bits, 8 to 128 MB Shared Memory

Industrial Ethernet

• Industrial Ethernet interface	Onboard, 2x 10 / 100 / 1000 Mbit, RJ45

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— 100 Mbps	Yes
— 1000 Mbps	Yes

Integrated Functions

Monitoring functions

• Temperature monitoring	Yes
• Watchdog	Yes
• Status LEDs	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 - 1000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 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 (on front) to EN60529 and NEMA4
IP (rear)	IP20

Standards, approvals, certificates

Approval	CE, cULus (508)
CE mark	Yes
UL approval	Yes
• UL 508	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes

KC approval	Yes
FCC	Yes
EMC	CE, EN 61000-6-4:2007, EN 61000-6-2:2005

Marine approval	
• Germanischer Lloyd (GL)	Yes
• American Bureau of Shipping (ABS)	Yes
• Bureau Veritas (BV)	Yes
• Det Norske Veritas (DNV)	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes

Ambient conditions

Ambient temperature during operation	
• Ambient temperature during operation	12", 15": +5 °C to +50 °C; 19": +5 °C to +45 °C
• min.	5 °C
• max.	50 °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	Tested to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm, 58 Hz to 200 Hz: 9.8 m/s² (1 g)

Shock testing	
• Shock load during operation	Tested to DIN IEC 60068-2-29: 50 m/s² (5 g), 30 ms, 100 shocks

Operating systems

Operating system	Windows XP Prof. SP3, MUI; Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 2009 English on 8 GB CompactFlash; without operating system
pre-installed operating system	Yes
without operating system	Yes

pre-installed operating system	
• Windows XP Professional	Yes
• Windows 7	Yes; Ultimate 32 bits or 64 bits

Software

SIMATIC Software	Optional in a package with SIMATIC WinCC, WinCC flexible, or WinAC RTX

Accessories

Accessory components	Touch protective foil

Dimensions

Width of the housing front	400 mm
Height of housing front	310.3 mm
Overall depth	
• additional mounting depth (optical drive)	21 mm
Mounting cutout/device depth (W x H x T)	368 mm x 290 mm / 126 mm (incl. optical drive)

Weights	
Panel PC in central design, approx.	13 kg

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