

SIMATIC IPC677D (Panel PC), 2x10/100/1000 Mbit/s Ethernet; 4x USB V3.0, 1x serial (COM1); Watchdog, temperature and Fan monitoring; RAID controller onboard; 19" Touch (1366x 768); with front USB

### General information

Product type designation	IPC677D
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### Display

Design of display	19" TFT touch
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Screen diagonal	19 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 | Front USB 2.0 (500mA) |
|-------------------|-----------------------|

#### Touch operation

- |                          |                        |
|--------------------------|------------------------|
| • Design as touch screen | Yes; analog, resistive |
|--------------------------|------------------------|

### Installation type/mounting

Mounting	For horizontal and vertical mounting
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Design	Panel PC, built-in unit
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central design	Yes
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Mounting in portrait format possible	Yes
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maximum permissible installation angle +/-	20°
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### Supply voltage

Type of supply voltage	100/240 V AC (autorange); 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 | 10 ms |
|--|-------|

### Power loss

In full configuration	155 W
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### Processor

Processor type	Celeron G1820TE (2C/2T, 2.2 GHz, 2 MB Cache); Core i3-4330TE (2C/4T, 2.4 GHz, 4 MB Cache); Xeon E3-1268L v3 (4C/8T, 2.3 (3.3) GHz, 8 MB Cache, AMT)
Chipset	Intel DH82C226 PCH
<b>Graphic</b>	
Graphics controller	Intel HD graphics controller P4600 GT2 (Xeon, Core i3); Intel HD graphics controller (Celeron)
<b>Drives</b>	
Optical drives	DVD±R±RW combi-drive, optional
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; ≥ 240 GB optional
<b>Memory</b>	
Type of memory	DDR3 1600 DIMM
Main memory	2 / 4 / 8 / 16 GB; ECC optional
Capacity of main memory, max.	16 Gbyte
<b>Data areas and their retentivity</b>	
Retentive data area (incl. timers, counters, flags), max.	2 Mbyte; 128 KB can be stored in the buffer time; optional
<b>Hardware configuration</b>	
<b>Slots</b>	
• free slots	2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); with card retainer
• Number of PCI slots	2
• Number of PCIe slots	2
<b>Interfaces</b>	
PROFIBUS/MPI	Optionally onboard, isolated, max. 12 Mbit/s, compatible with CP 5622
Number of PROFINET interfaces	3; Optional
USB port	4x USB 3.0
Connection for keyboard/mouse	USB / USB
serial interface	1x COM1 (RS 232), optional: 1x COM2 (RS 232)
parallel interface	optional LPT1
<b>Video interfaces</b>	
• Graphics interface	1x DisplayPort and 1x DVI-I; 1x VGA via adapter cable (optional)
<b>Industrial Ethernet</b>	
• Industrial Ethernet interface	Onboard, 2x 10 / 100 / 1000 Mbit, RJ45
— 100 Mbps	Yes
— 1000 Mbps	Yes
<b>Integrated Functions</b>	
<b>Monitoring functions</b>	

• Temperature monitoring	Yes
• Watchdog	Yes
• Status LEDs	Yes
• Fan	Yes
• Monitoring function via network	Optional

## EMC

<b>Interference immunity against discharge of static electricity</b>	
• 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
<b>Interference immunity against high-frequency electromagnetic fields</b>	
• 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
<b>Interference immunity to cable-borne interference</b>	
• 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
<b>Interference immunity against voltage surge</b>	
• asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric
• symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
<b>Interference immunity to magnetic fields</b>	
• Interference immunity to magnetic fields at 50 Hz	100 A/m; to IEC 61000-4-8
<b>Emission of conducted and non-conducted interference</b>	
• 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
• 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

## Ambient conditions

Ambient temperature during operation	
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<ul style="list-style-type: none"> <li>• Ambient temperature during operation</li> </ul>	+5 °C to +45 °C with full configuration
<ul style="list-style-type: none"> <li>• min.</li> </ul>	5 °C
<ul style="list-style-type: none"> <li>• max.</li> </ul>	45 °C
<b>Ambient temperature during storage/transportation</b>	
<ul style="list-style-type: none"> <li>• min.</li> </ul>	-20 °C
<ul style="list-style-type: none"> <li>• max.</li> </ul>	60 °C
<b>Relative humidity</b>	
<ul style="list-style-type: none"> <li>• Relative humidity</li> </ul>	Tested according to IEC 60068-2-78, IEC 60068-2-30: 5% to 80% at 25 °C (no condensation)
<b>Vibrations</b>	
<ul style="list-style-type: none"> <li>• Vibration resistance during operation acc. to IEC 60068-2-6</li> </ul>	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 <sup>2</sup> (1g)
<b>Shock testing</b>	
<ul style="list-style-type: none"> <li>• Shock load during operation</li> </ul>	Tested to DIN IEC 60068-2-29: 50 m/s <sup>2</sup> (5 g), 30 ms, 100 shocks
<b>Operating systems</b>	
Operating system	Windows 7 Ultimate 32-bit/64-bit, MUI; Windows 10 IoT Enterprise LTSC 2015, 64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI
pre-installed operating system	Yes
without operating system	Yes
<b>pre-installed operating system</b>	
<ul style="list-style-type: none"> <li>• Windows 7</li> </ul>	Yes; Ultimate 32 bits or 64 bits
<ul style="list-style-type: none"> <li>• Windows 10 IoT Enterprise</li> </ul>	Yes; LTSC 2015, 64-bit, MUI
<b>Software</b>	
SIMATIC Software	Optional package with SIMATIC WinCC or WinAC RTX
<b>Dimensions</b>	
Width of the housing front	483 mm
Height of housing front	337 mm
Overall depth	
<ul style="list-style-type: none"> <li>• additional mounting depth (optical drive)</li> </ul>	26 mm
Mounting cutout/device depth (W x H x T)	465 mm x 319 mm x 112 mm
<b>Weights</b>	
Panel PC in central design, approx.	14 kg
<b>last modified:</b>	12/04/2017