SIMATIC IPC677D

SIMATIC IPC677D (Panel PC):
The high-end Panel PC – with maximum performance, functional scope and expansion capability

Rugged construction: The PC is resistant to the harshest mechanical stress and is reliable in operation.

- Compact design
- High degree of investment security
- Fast integration capability
- Front panel versions:
  - 22” Touch (more front panels available soon)

The SIMATIC IPC677D comprises a computer unit and an operator control unit.

**Components of the computer unit:**

**Rugged metal enclosure, resistant to vibration and shock, with high electromagnetic compatibility**

**Processor:**
- Intel Celeron 2.2 GHz, 2 cores
- Intel Core i3 2.4 GHz, 2 cores, hyper-threading
- Intel Xeon 2.3 (3.3) GHz, 4 cores, hyper-threading, turbo-boost

**Main memory basic configuration:** 2 GB

**3.5” SATA hard disk = 250 GB**

The special vibration-absorbing hard disk support ensures reliable operation even under extreme mechanical stress.

**Graphics integrated on CPU** (Intel Graphics Media Accelerator)

**Interfaces:**
- 2 x 10/100/1000 Ethernet
- optional: PROFIBUS DP/MPI on board, isolated, CP 5622-compatible
- optional: PROFINET (IRT-capable), 3-port, switching-enabled, CP 1616-compatible
- 4 x USB 3.0 connection
- 1 x serial V.24 (9-pin)

**Retentive memory:**
- 2 MB NVRAM can be used with WinAC RTX 128 KB
- (AC and DC versions)

**Free slots for expansions:**
- 2 x PCI or PCIe (slots with card retainer)

**Power supply:** 110/230 V AC (autorange), 50/60 Hz or 24 V DC

**DVI-I and DisplayPort interface for connection of a further monitor, e.g. Industrial Flat Panel**

**Optional additional components:**

- Main memory expansion to 4, 8, 16 GB or 8 or 16 GB with ECC
- SATA hard disk = 500 GB
- Dual hard disk module 2 x = 250 GB SATA as single disk configuration or RAID1 preconfigured
- 240 GByte SSD (solid-state drive)
- DVD±RW±R combo drive
- 1 x PCIe x16 / 1 x PCI or 1 x PCIe x16 / 1 x PCIe x4 instead of 2 x PCI slots (with card retainers)
- Windows 7 Ultimate 32 or 64-bit operating system
Components of the operator control unit:
The operator control units are available in the following versions:
- 22" Touch TFT color display, 1920 x 1080 pixels, resistive analog touch screen

The operator control units feature a USB 3.0 port on the front for connecting external peripheral devices, such as a mouse or keyboard. They fulfill the requirements of IP65 degree of protection.
The computer unit is connected via a connecting cable attached at the rear of the operator control unit.

Distributed configuration
A distributed configuration can be set up with the SIMATIC IPC627D and the SIMATIC Industrial Flat Panel monitors.
The monitor can be placed up to 30 m away while retaining front functionality (incl. rear USB interfaces). Flat-panel monitors are available in different versions as devices without operating functionality or with touch or touch/key operation.

Expansion components
SIMATIC IPC DiagMonitor
- PC diagnostics/alarm software for early detection and diagnosis of PC problems
- Comprehensive monitoring of temperature, fans, hard disks (SMART), watchdog, BIOS battery
- Operating hours counter for preventive maintenance
- Integrated log functions, comprehensive text messages, online help (English/German)
- Network-wide monitoring via SNMP and OPC interface possible
- Integrated Web server for monitoring over the network using a Web browser

SIMATIC IPC Image & Partition Creator
- Software tool for preventive data back-up of the contents of mass storage devices (CFast cards, hard disks)
- High-speed restoring of system and data partitions with bit accuracy; user software and special installations are also backed up

SIMATIC IPC Service USB FlashDrive
- Software tool for adaptation of mass storage partitioning
- Mobile memory medium for backing up/restoring mass memories
- Preinstalled SIMATIC IPC Image & Partition Creator
- Ultra-compact and rugged

SIMATIC IPC USB FlashDrive
- Mobile memory medium for SIMATIC PC/PG
- Fast data transfer (USB 3.0) and high memory capacity
- Ultra-compact and rugged

Technical specifications SIMATIC IPC677D

<table>
<thead>
<tr>
<th>SIMATIC panel PC</th>
<th>SIMATIC IPC677D</th>
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<tbody>
<tr>
<td><strong>General features</strong></td>
<td></td>
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<tr>
<td>Processor</td>
<td>Xeon E3-1268Lv3</td>
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<tr>
<td></td>
<td>(4C/8T, 2.3 (3.3) GHz, 8 MB cache, VT-d, AMT)</td>
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<tr>
<td></td>
<td>Core i3-4330TE</td>
</tr>
<tr>
<td></td>
<td>(2C/4T, 2.4 GHz, 4 MB cache, VT-x)</td>
</tr>
<tr>
<td></td>
<td>Celeron G1820TE</td>
</tr>
<tr>
<td></td>
<td>(2C/2T, 2.2 GHz, 2 MB cache)</td>
</tr>
<tr>
<td>Main memory</td>
<td>2 GB, optionally 4, 8 or 16 GB or 8 or 16 GB with ECC</td>
</tr>
<tr>
<td>Free slots for expansions</td>
<td>2 x PCI (slot with card retainer) or</td>
</tr>
<tr>
<td></td>
<td>1 x PCI and 1 x PCIe x16 oder</td>
</tr>
<tr>
<td></td>
<td>1 x PCIe x16 and 1 x PCIe x4</td>
</tr>
<tr>
<td>Operating system</td>
<td>Windows 7 Ultimate 32-bit or 64-bit</td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC or 110/240 V AC (autorange) 50/60 Hz</td>
</tr>
<tr>
<td>MTBF backlighting</td>
<td>Typ. 80 000 h (at continuous operation, temperature-dependent)</td>
</tr>
<tr>
<td><strong>Drives</strong></td>
<td></td>
</tr>
<tr>
<td>Optical drives</td>
<td>Optional DVD±RW±R combo drive, at the rear, operable from the side</td>
</tr>
<tr>
<td>Hard disk/mass storage</td>
<td>3.5&quot; SATA hard disk = 250 GB</td>
</tr>
<tr>
<td></td>
<td>opt. 3.5&quot; SATA hard disk = 500 GB</td>
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<tr>
<td></td>
<td>Dual hard disk module 2 x = 250 GB SATA as single disk configuration or RAID1 preconfigured</td>
</tr>
<tr>
<td></td>
<td>240 GB SSD (solid-state drive)</td>
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<tr>
<td><strong>Interfaces</strong></td>
<td></td>
</tr>
<tr>
<td>Graphics interface</td>
<td>DVI-I and DisplayPort</td>
</tr>
<tr>
<td>Connection for keyboard/mouse</td>
<td>USB / USB</td>
</tr>
<tr>
<td>Serial interface</td>
<td>COM1: 1 x V.24 (RS232)</td>
</tr>
<tr>
<td>PROFINET IRT</td>
<td>Onboard (optional), isolated, max. 12 Mbit/s, compatible with CP 5622, not upgradeable</td>
</tr>
<tr>
<td>PROFINET (IE), Ethernet</td>
<td>Onboard (optional), 3 x RJ 45, CP 1616-compatible, not upgradeable</td>
</tr>
<tr>
<td>PROFINET (IE), Ethernet</td>
<td>onboard, 2 x 10/100/1000 Mbit</td>
</tr>
<tr>
<td>USB</td>
<td>1 x on front, 4 x on rear, USB 3.0 (500 mA)</td>
</tr>
<tr>
<td>Audio</td>
<td>possible via USB (external)</td>
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<tr>
<td>Multimedia</td>
<td>No</td>
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</tbody>
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### Monitoring functions

- **Temperature**
  - Yes
- **Watchdog**
  - Yes

### Ambient conditions

- **Degree of protection**
  - Front: IP65, Rear: IP20
- **Vibration load during operation**
  - Tested acc. to DIN IEC 60068-2-6: 10 - 58 Hz: 0.075 mm, 58 ... 500 Hz: 10 m/s² (1 g)
- **Shock loading during operation**
  - Tested acc. to DIN IEC 60068-2-27, IEC 60068-2-29: 50 m/s² (5 g), 30 ms, 100 shocks
- **EMC**
  - CE, FCC A, EN 61000-6-4, EN 61000-6-3, CISPR22
- **Ambient temperature during operation**
  - 5 °C … +45 °C in maximum configuration
- **Relative humidity**
  - Tested acc. to DIN IEC 60068-78, DIN IEC 60068-2-30: 5% to 80% at 25 °C (no condensation)
- **Maximum permissible installation angle**
  - ±20° over vertical

### Certifications & standards

- **Approvals**
  - CE, cULus(508), FCC, KC, C-Tick
- **Expansion components**
  - Uninterruptible power supply (UPS), SIMATIC NET communication modules, SIMATIC IPC DiagMonitor, SIMATIC IPC Image & Partition Creator, SIMATIC IPC USB FlashDrive

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1) Valid with SSD; with HDD: 5 g/0.5 g

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**Installation cutout**

<table>
<thead>
<tr>
<th>W</th>
<th>H</th>
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<tr>
<td>541 mm</td>
<td>362 mm</td>
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**Touch devices**

- 22”

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1) Width and height should be reversed accordingly when mounting in vertical format.