

PC-based Automation

Industrial PC

Box PC

SIMATIC IPC627D**Overview**

IPC627D with DVD drive

SIMATIC IPC627D (Box PC): The high-end IPC – with maximum performance, functional scope and expansion capability

It offers:

- Maximum performance in the smallest space
- Intel Xeon technology
- Removable hard disks (RAID1)

Technical specifications

| | |
|---|---|
| Article number | 6AG4131-2....-.... SIMATIC IPC627D (Box PC) |
| Installation type/mounting | |
| Mounting | Wall mounting, portrait mounting |
| Design | Box 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 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 |
| Graphic | |
| Graphics controller | Intel HD graphics controller P4600 GT2 (Xeon, Core i3); Intel HD graphics controller (Celeron) |
| Drives | |
| Optical drives | DVD±R±RW combi-drive, optional |
| Hard disk | 3.5" SATA ≥ 500 GB, optional; 3.5" SATA ≥ 1 TB; RAID1 2x 2.5" SATA ≥ 320 GB; solid-state drive (SSD) ≥ 240 GB; all hard disk drives within the enclosure are vibration-damped; RAID1 2x 2.5" SATA ≥ 320 GB byte in removable drive bay |
| SSD | Yes; ≥ 240 GB optional |
| Memory | |
| Type of memory | DDR3 1600 DIMM |
| Main memory | 2 / 4 / 8 / 16 GB; ECC optional |
| 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; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); with card retainer |

Technical specifications (continued)

| | |
|--|---|
| Article number | 6AG4131-2....-.... SIMATIC IPC627D (Box PC) |
| Interfaces | |
| PROFIBUS/MPI | Optionally onboard, isolated, max. 12 Mbit/s, comp. with CP 5622 |
| Number of industrial Ethernet interfaces | 2; 2x RJ45 (independent) |
| Number of PROFINET interfaces | 3; Optional |
| USB port | 4x USB 3.0 |
| Connection for keyboard/mouse serial interface | USB / USB |
| parallel interface | 1x COM1 (RS 232), optional: 1x COM2 (RS 232) |
| parallel interface | optional LPT1 |
| Video interfaces | |
| • Graphics interface | 1x DisplayPort and 1x DVI-I; 1x VGA via adapter cable (optional) |
| Industrial Ethernet | |
| • Industrial Ethernet interface | Onboard, 2x 10 / 100 / 1000 Mbit, RJ45 |
| - 100 Mbps / 1000 Mbps | Yes / 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 |

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|---|--|
| Article number | 6AG4131-2....-.... SIMATIC IPC627D (Box PC) |
| Degree and class of protection | |
| IP (at the front) | IP20 |
| 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 61000-6-3:2007 +A1:2011, 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 | +5 °C up to 55 °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 (1g) |
| 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 | |
| Operating system | Windows 7 Ultimate, 32-bit/64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI; Windows 10 Enterprise 2015 or 2016 LTSP, 64-bit, MUI |
| pre-installed operating system without operating system | Yes |
| pre-installed operating system | Yes |
| pre-installed operating system | |
| • Windows 7 | Yes; Ultimate 32 bit or 64 bit |
| • Windows 10 Enterprise | Yes; Windows 10 Enterprise 2015 or 2016 LTSP, 64-bit, MUI |
| Software | |
| SIMATIC Software | Optional package with SIMATIC WinCC or WinAC RTX |
| Dimensions | |
| Width | 312 mm |
| Height | 81 mm; with DVD drive: 105 mm |
| Depth | 301 mm; incl. mounting rail |

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Ordering data

Article No.

SIMATIC IPC627D ¹⁾

HD graphics onboard
(Xeon, i3: HD4600);
2 x Gigabit Ethernet (IE/PN) RJ45;
4 x USB V3.0; 1x serial (COM1);
RAID controller onboard;
watchdog, temp./fan monitoring;

Processor:

- Intel Celeron G1820TE
(2C, 2.2 GHz, 2 MB cache) **A**
- Intel Celeron G1820TE
(2C, 2.2 GHz, 2 MB cache),
PROFIBUS/MPI (CP 5622-com-
patible); 2 MB buffered SRAM **B**
- Intel Celeron G1820TE
(2C, 2.2 GHz, 2 MB cache),
PROFINET (IRT, 3 ports, CP 1616-
compatible); 2 MB buffered SRAM **C**
- Core i3-4330TE
(2C/4T, 2.4 GHz, 4 MB cache,
VT-x) **D**
- Core i3-4330TE
(2C/4T, 2.4 GHz, 4 MB cache,
VT-x); PROFIBUS/MPI (CP 5622-
compatible); 2 MB buffered SRAM **E**
- Core i3-4330TE
(2C/4T, 2.4 GHz, 4 MB cache,
VT-x); PROFIBUS/MPI (CP 5622-
compatible); 2 MB buffered SRAM **F**
- Xeon E3-1268Lv3
(4C/8T, 2.3 (3.3) GHz,
8 MB cache, VT-d, AMT); **G**
- Xeon E3-1268Lv3
(4C/8T, 2.3 (3.3) GHz,
8 MB cache, VT-d, AMT);
PROFIBUS/MPI (CP 5622-com-
patible); 2 MB buffered SRAM **H**
- Xeon E3-1268Lv3
(4C/8T, 2.3 (3.3) GHz,
8 MB cache, VT-d, AMT);
PROFINET (IRT, 3 ports,
CP 1616-compatible);
2 MB buffered SRAM **J**

Drives

- 500 GB HDD SATA **A**
- 500 GB HDD SATA; DVD+/-RW **B**
- 1 TB HDD SATA **D**
- 1 TB HDD SATA; DVD+/-RW **E**
- RAID1 2 x 320 GB SATA (2.5") **G**
- RAID1 2 x 320 GB SATA (2.5");
DVD+/-RW **H**
- Exchangeable SSD RAID1
2x 240 GB solid-state drive **J**
- Exchangeable HDD RAID1
2 x 320 GB SATA (2.5") **K**
- Exchangeable HDD RAID1
2 x 320 GB SATA (2.5");
solid-state drive, 240 GB **L**
- Solid-state drive, 240 GB **M**
- Solid-state drive, 240 GB;
320 GB HDD SATA (2.5") **N**
- Solid-state drive, 240 GB;
320 GB HDD SATA (2.5");
DVD+/-RW **P**
- Solid-state drive, 240 GB;
DVD+/-RW **S**
- Without drives; prepared for
2x 2.5" HDD **X**

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6AG4131- | 2 | A | B | C | D | E | F | G | H | J | A | B | D | E | G | H | J | K | L | M | N | P | S | X |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Article No.

SIMATIC IPC627D ¹⁾

Memory configuration

- 2 GB DDR3 1600 DIMM **1**
- 4 GB DDR3 1600 DIMM **2**
- 8 GB DDR3 1600 DIMM **3**
- 16 GB DDR3 1600 DIMM **4**
- 8 GB DDR3 1600 DIMM; ECC **5**
- 16 GB DDR3 1600 DIMM; ECC **6**

Expansion 1 (HW)

- 2 x PCI; **0**
- 1 x PCIe (x16); 1 x PCI **1**
- 1 x PCIe (x16); 1 x PCIe (x4) **2**

Expansion 2 (HW)

- Without expansion (HW) **0**
- 2 x USB in addition (1 slot
occupied) **1**
- COM2; LPT (1 slot occupied) **2**
- 2 x USB in addition; COM2;
LPT (2 slots occupied) **3**

Operating system

- Windows 7 Ultimate, 32-bit SP1,
MUI (en, de, fr, it, es) **A**
- Windows 7 Ultimate, 64-bit SP1,
MUI (en, de, fr, it, es) **B**
- Windows 10 Enterprise 2015
LTSB, 64-bit, MUI (en, de, fr, it, es) **C**
- Windows Embedded Standard 7
P, 32-bit, SP1, MUI (en, de, fr, it,
es) with SSD 240 GB option
(without RAID) **D**
- Windows 10 Enterprise 2016
LTSB, 64-bit, MUI (en, de, fr, it, es),
for Celeron and i3 processors **E**
- Windows 10 Enterprise 2016
LTSB, 64-bit, MUI (en, de, fr, it, es)
for Xeon processors **F**
- Without **X**

Expansion (SW)

- SIMATIC IPC DiagMonitor incl. **A**
- SIMATIC IPC Image & Partition
Creator included **B**
- SIMATIC IPC DiagMonitor, Image
& Partition Creator included **C**
- Without **X**
- TPM ²⁾ (not for China or Russia) **Y**

Country-specific version / power supply

- 110/230 V AC industrial
power supply with NAMUR;
power cable for Europe **0**
- 110/230 V AC industrial
power supply with NAMUR;
power cable for UK **1**
- 110/230 V AC industrial
power supply with NAMUR;
power cable for CH **2**
- 110/230 V AC industrial
power supply with NAMUR;
power cable for the USA **3**
- 110/230 V AC industrial
power supply NAMUR;
power cable for Italy **4**
- 110/230 V AC industrial
power supply with NAMUR;
power cable for China **5**
- 24 V DC industrial power supply **6**
- 110/230 V AC industrial power
supply with NAMUR;
without power cable **8**

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|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6AG4131- | 2 | 1 | 2 | 3 | 4 | 5 | 6 | 0 | 1 | 2 | 3 | A | B | C | D | E | F | X | Y | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 8 |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

¹⁾ For an up-to-date overview, see the SIMATIC PC Online Configurator at:
<http://www.siemens.com/ipc-configurator>

²⁾ TPM = Trusted Platform Module

| Ordering data | Article No. | More information |
|--|--|--|
| Accessories Memory expansion <ul style="list-style-type: none"> • 2 GB DDR3 1600 SDRAM, DIMM • 4 GB DDR3 1600 SDRAM, DIMM • 8 GB DDR3 1600 SDRAM, DIMM • 8 GB DDR3 1600 SDRAM, DIMM, ECC | 6ES7648-2AJ50-0MA0 6ES7648-2AJ60-0MA0 6ES7648-2AJ70-0MA0 6ES7648-2AJ70-1MA0 | Additional information is available on the Internet at: http://www.siemens.com/simatic-pc |
| Assembly kit for portrait mounting <ul style="list-style-type: none"> • Upward or downward interface outlet • Interface outlet to the front | 6ES7648-1AA10-1YA0 6ES7648-1AA10-1YB0 | |
| SIMATIC PC graphics adapter cable DVI-I acc. to VGA, 250 mm long | 6ES7648-3AB00-0XA0 | |
| SIMATIC PC power cable For Box PC and Panel PC, 230 V AC, angled, 3 m <ul style="list-style-type: none"> • For Germany, France, Spain, the Netherlands, Belgium, Sweden, Austria, Finland • For United Kingdom • For Switzerland • For the USA • For Italy • For China | 6ES7900-1AA00-0XA0 6ES7900-1BA00-0XA0 6ES7900-1CA00-0XA0 6ES7900-1DA00-0XA0 6ES7900-1EA00-0XA0 6ES7900-1FA00-0XA0 | |

Note:

Please assemble the required IPC configuration using the TIA Selection Tool or the configurator in the Industry Mall in order to ensure suitability; we do not accept any liability for configurations compiled by users themselves.