Overview

SIMATIC IPC547G

The SIMATIC IPC547G is a rugged industrial PC in 19" rack design (4U).

It offers:

- Maximum performance
- Attractive price
- Intel Core i/Xeon technology, 6th generation

Technical specifications

Article number	**6AG4104-4....-....**
	SIMATIC IPC547G
Installation type/mounting	
Mounting	For horizontal and vertical installation; prepared for telescopic rails; 19" mounting bracket can be removed externally; tower kit (optional)
Design	Rack PC, 19", 4U
Supply voltage	
Type of supply voltage	100/240 V AC (autorange) 50 / 60 Hz; optional redundant 100 - 240 V AC
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	Xeon E3-1275 v5 (4C/8T, 3.6 (4.0) GHz, 8 MB Cache); Core i7-6700 (4C/8T, 3.4 (4.0) GHz, 8 MB Cache); Core i5-6500 (4C/4T, 3.2 (3.6) GHz, 6 MB Cache); Pentium G4400 (2C/2T, 3.3 GHz, 3 MB Cache)
Chipset	Intel C236 / Intel H110
Graphic	
Graphics controller	Onboard Intel HD graphics P530 / 530 /510 integrated in processor; graphics card PCIe (x16) (dual head: 2x VGA or 2x DVI-D) (optional)
Drives	
Optical drives	DVD±R/RW (SlimLine)
Hard disk	Internal installation: 1 TB HDD, 2x 1 TB HDD, RAID1 (2x 1 TB HDD), RAID1 (2x 1 TB HDD (Enterprise)); for front mounting in low-profile removable drive bay trays (hot-swap in RAID configuration): 1 TB HDD, 2x 1 TB HDD, RAID1 (2x 1 TB HDD), RAID1 (2x 1 TB HDD (Enterprise)), RAID1 (2x 2 TB HDD (Enterprise)), RAID1 (2x 2 TB HDD (Enterprise)) + 1x 2 TB HDD (Enterprise) as hot spare, RAID1 (2x 2 TB HDD (Enterprise)) + 1x 480 GB SSD, RAID5 (3x 2 TB HDD (Enterprise)), RAID5 (3x 2 TB HDD (Enterprise)) + 1x 2 TB HDD (Enterprise) as hot spare
SSD	Yes; 1x 240 GB, 1x 480 GB SSD, 2x 480 GB SSD, RAID1 (2x 480 GB SSD)
Slot for drives	Mounted internally in vibration/ shock-absorbing hard disk support, or mounted at the front in the low-profile removable drive bay (hot-swap in RAID configurations)

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Technical specifications (continued)

Article number	6AG4104-4....-.... SIMATIC IPC547G
Memory	
Main memory	4 GB to 64 GB DDR4 2133 SDRAM
Hardware configuration	
Slots	
• free slots	7 spare slots for expansions (all long); mainboard with H110 chipset: 1x PCIe (x16) Gen 3, 1x PCIe (x16) (1 lane) Gen 2, 1x PCIe (x8) (1 lane) Gen 2, 1x PCIe (x4) (1 lane) Gen 2, 1x PCIe (x4) (1 lane) Gen 2, 2x PCI; mainboard with C236 chipset: 1x PCIe (x16) Gen 3, 1x PCIe (x16) (4 lanes) Gen 3, 1x PCIe (x8) (1 lane) Gen 3, 1x PCIe (x4) (4 lanes) Gen 3, 1x PCIe (x4) (1 lane) Gen 3, 2x PCI
Interfaces	
Interfaces/bus type	Interfaces mainboard (H110 chipset): 2x Intel Gigabit Ethernet (RJ45, teaming-capable), 4x USB 3.0: 2x on rear, 2x on front, 4x USB 2.0: 4x on rear, 1x DisplayPort V1.2, 1x DVI-D, 2x PS/2, audio: Line in, line out, micro; interfaces mainboard (C236 chip set): 2x Intel Gigabit Ethernet (RJ45, teaming-capable), 6x USB 3.0: 4x on rear, 2x on front, 5x USB 2.0: 4x on rear, 1x internal e.g. for software dongle with optional interlock, 2x DisplayPort V1.2, 1x DVI-D, 1x COM1, 2x PS/2, audio: line in, line out, micro
USB port	Mainboard (H110 chipset): 4x USB 3.0: 2x on rear, 2x on front, 4x USB 2.0: 4x on rear; mainboard (C236 chipset): 6x USB 3.0: 4x on rear, 2x on front, 5x USB 2.0: 4x on rear, 1x internal e.g. for software dongle with optional interlock
Connection for keyboard/mouse	2x PS/2
serial interface	COM1: 1x RS 232, COM2 (optional): 1x RS 232
parallel interface	optional LPT1
Multimedia	
• Audio In/Out	Yes
• Microphone In	Yes
Video interfaces	
• Graphics interface	2x DisplayPort and 1x DVI-D onboard; 1x VGA via DP-VGA adapter cable (optional); graphics card PCIe (x16), Dual Head (2x VGA or 2x DVI-D), 1 GB graphics memory (optional)
Industrial Ethernet	
• Industrial Ethernet interface	2x Ethernet (RJ45)
- 100 Mbps	Yes
- 1000 Mbps	Yes

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Integrated Functions	
Monitoring functions	
• Temperature monitoring	Yes
• Watchdog	Yes
• Status LEDs	POWER, HDD, TEMP, FAN, HDD0 ALARM, HDD1 ALARM, HDD2 ALARM, HDD3 ALARM
• Fan	Yes
• Monitoring function via network	Optional
EMC	
Interference immunity against discharge of static electricity	
• Interference immunity against discharge of static electricity	±4 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 - 1 000 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 1 V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 150 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 > 30 m	±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge
• Interference immunity on signal cables < 30 m	±1 kV acc. to IEC 61000-4-4, Burst
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	30 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, FCC Class A, EN 61000-6-4, CISPR 22, EN 55022 Class B, EN 61000-3-2 Class D, EN 61000-3-3
Degree and class of protection	
IP (at the front)	IP30
IP (rear)	IP20

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■ Technical specifications (continued)

Article number	6AG4104-4....-....
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Standards, approvals, certificates	
Approval	CE, cULus 60950, KCC
CE mark	Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 61000-6-3:2007 +A1:2011, noise immunity: EN 61000-6-2:2005)
CSA approval	Yes; Included in cULus
UL approval	Yes
cULus	Yes; UL 60950-1, file number E115352
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
EMC	CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005
Dust protection	With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered
Ambient conditions	
Ambient temperature during operation	
• Ambient temperature during operation	0 °C to +40 °C in full configuration (no burner mode), at +5 °C to +35 °C without limitation
Relative humidity	
• Relative humidity	Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5 % to 85 % at 30 °C (no condensation), storage / transport: 5 % to 95 % at 25 / 55 °C (no condensation)
Vibrations	
• Vibration resistance during operation acc. to IEC 60068-2-6	Tested according to IEC 60068-2-6, 10 cycles; 20 to 58 Hz: 0.015 mm; 58 to 200 Hz: 2 m/s² (0.2 g)
Shock testing	
• Shock load during operation	Tested according to IEC 60068-2-27; half-sine: 9.8 m/s² (1 g), 20 ms, 100 shocks per axis

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Operating systems	
Operating system	Windows 7 Ultimate, multi-language (32-bit/64-bit), Windows 10 Enterprise 2015 LTSB, multi-language (64-bit), Windows 10 Enterprise 2016 LTSB, multi-language (64-bit), Windows Server 2008 R2 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2012 R2 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit)
pre-installed operating system	Yes
Additional info on operating system	Multi-Language User Interface (MUI): 5 languages (English, German, French, Spanish, Italian)
without operating system	Yes
Software	
SIMATIC Software	Optionally in package with SIMATIC WinCC or WinCC flexible
Dimensions	
Width	430 mm
Height	177 mm; 4U
Depth	446 mm; Device with short enclosure: 356 mm

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Rack PC, 19", 4 U
Interfaces: 2 x USB 3.0 at the front,
2 x Gbit Ethernet, 2 x PS/2, audio;
slots: 5 x PCI Express, 2 x PCI;
temperature and fan monitoring;
watchdog; card retainer

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Processors and mainboards
- Pentium G4400 (2C/2T, 3.3 GHz, 3 MB cache); mainboard (chipset H110, 1 x DVI-D, 1 x DisplayPort V1.2, 2 x USB 3.0 & 4 x USB 2.0 at the rear) — **A**
- Core i5-6500 (4C/4T, 3.2 (3.6) GHz, 6 MB cache); mainboard (chipset H110, 1 x DVI-D, 1 x DisplayPort V1.2, 2 x USB 3.0 & 4 x USB 2.0 at the rear) — **C**
- Core i7-6700 (4C/8T, 3.4 (4.0) GHz, 8 MB cache); mainboard (chipset H110, 1 x DVI-D, 1 x DisplayPort V1.2, 2 x USB 3.0 & 4 x USB 2.0 at the rear) — **D**
- Pentium G4400 (2C/2T, 3.3 GHz, 3 MB cache); mainboard (chipset C236, 1 x DVI-D, 2 x DisplayPort V1.2, 4 x USB 3.0 & 4 x USB 2.0 at the rear, 1 x USB 2.0 internal, 1 x COM1; RAID onboard) — **E**
- Core i5-6500 (4C/4T, 3.2 (3.6) GHz, 6 MB cache, iAMT); mainboard (chipset C236, 1 x DVI-D, 2 x DisplayPort V1.2, 4 x USB 3.0 & 4 x USB 2.0 at the rear, 1 x USB 2.0 internal, 1 x COM1; RAID onboard) — **G**
- Core i7-6700 (4C/8T, 3.4 (4.0) GHz, 8 MB cache, iAMT); mainboard (chipset C236, 1 x DVI-D, 2 x DisplayPort V1.2, 4 x USB 3.0 & 4 x USB 2.0 at the rear, 1 x USB 2.0 internal, 1 x COM1; RAID onboard) — **H**
- Xeon E3-1275 v5 (4C/8T, 3.6 (4.0) GHz, 8 MB cache, iAMT); mainboard (chipset C236, 1 x DVI-D, 2 x DisplayPort V1.2, 4 x USB 3.0 & 4 x USB 2.0 at the rear, 1 x USB 2.0 internal, 1 x COM1; RAID onboard) — **J**

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Drives (SATA)
- 1 x 1 TB HDD, internal (0.2 g vibration, 1 g shock) — **A**
- 2 x 1 TB HDD, internal (0.2 g vibration, 1 g shock) — **B**
- 1 x 240 GB SSD, internal — **C**
- 1 x 480 GB SSD, internal — **D**
- 2 x 480 GB SSD, internal — **E**
- RAID1, 1 TB (2 x 1 TB HDD), internal (0.2 g vibration, 1 g shock)[1] — **F**
- RAID1, 1 TB (2 x 1 TB HDD [Enterprise]), internal (0.2 g vibration, 1 g shock)[1] — **G**
- 1 x 1 TB HDD in removable drive bay, on the front [2] — **H**
- 2 x 1 TB HDD in removable drive bay, on the front [2] — **J**
- 1 x 480 GB SSD in removable drive bay, on the front [2] — **K**
- 2 x 480 GB SSD in removable drive bay, on the front [2] — **L**
- RAID1, 480 GB (2 x 480 GB SSD) in removable drive bay, hot-swappable, front-mounted [1,2] — **M**
- RAID1, 1 TB (2 x 1 TB HDD) in removable drive bay, hot-swappable, front-mounted [1,2] — **N**
- RAID1, 1 TB (2 x 1 TB HDD [Enterprise]) in removable drive bay, hot-swappable, front-mounted [1,2] — **P**
- RAID1, 2 TB (2 x 2 TB HDD [Enterprise]) in removable drive bay, hot-swappable, front-mounted [1,2] — **Q**
- RAID1, 2 TB (2 x 2 TB HDD [Enterprise]) in removable drive bay, hot-swappable + 1 x 2 TB HDD [Enterprise] as hot spare in removable drive bay, front-mounted [1,2] — **R**
- RAID1, 2 TB (2 x 2 TB HDD [Enterprise]) in removable drive bay, hot-swappable + 1x 480 GB SSD in removable drive bay, front-mounted (operating system installed on SSD if configured) [1,2] — **S**
- RAID5, 4 TB (3 x 2 TB HDD [Enterprise]) in removable drive bay, hot-swappable, front-mounted [1,2] — **T**
- RAID5, 4 TB (3 x 2 TB HDD [Enterprise]) in removable drive bay, hot-swappable + 1 x 2 TB HDD [Enterprise] as hot spare in removable drive bay, front-mounted; (up to +35°C) [1,2] — **U**

■ Ordering data

SIMATIC IPC547G	Article No. 6AG4104 - 4 ■ ■ ■ ■ - ■ ■ ■ ■
Memory configuration	
• 4 GB DDR3 SDRAM (1 x 4 GB), single channel	0
• 8 GB DDR3 SDRAM (2 x 4 GB), dual channel	1
• 16 GB DDR3 SDRAM (2 x 8 GB), dual channel	2
• 32 GB DDR3 SDRAM (2 x 16 GB), dual channel	3
• 64 GB DDR3 SDRAM (4 x 16 GB), dual channel [1]	4
Type of enclosure / power supplies and removable media	
• Enclosure (short), blue-chromat., 100/240 V AC industrial power supply, without removable media	0
• Enclosure, blue-chromated, 100/240 V AC industrial power supply, without removable media	1
• Enclosure, blue-chromated, 100/240 V AC industrial power supply, DVD±RW (slim)	2
• Enclosure, blue-chromated, 2 x 100/240 V AC redundant industrial power supply, without removable media	3
• Enclosure, blue-chromated, 2 x 100/240 V AC redundant industrial power supply, DVD±RW (slim)	4
• Painted enclosure, 100/240 V AC industrial power supply, without removable media	5
• Painted enclosure, 100/240 V AC industrial power supply, DVD±RW (slim)	6
• Painted enclosure, 2 x 100/240 V AC redundant industrial power supply, without removable media	7
• Painted enclosure, 2 x 100/240 V AC redundant industrial power supply, DVD±RW (slim)	8
Expansions (hardware)	
• Without expansions (hardware), onboard graphics	0
• Without expansions (hardware), onboard graphics; adapter cable DP to VGA for onboard graphics	1
• Without expansions (hardware), PCIe x16 graphics card (dual head: 2 x VGA or 2 x DVI-D), 1 GB	2
• Serial (COM2) + parallel (LPT); onboard graphics	3
• Serial (COM2) + parallel (LPT); onboard graphics; adapter cable DP to VGA for onboard graphics	4
• Serial (COM2) + parallel (LPT) + PCIe x16 graphics card (dual head: 2 x VGA or 2 x DVI-D), 1 GB	5

SIMATIC IPC547G	Article No. 6AG4104 - 4 ■ ■ ■ ■ - ■ ■ ■ ■
Operating systems (pre-installed and activated)	
• Windows 7 Ultimate, MUI (en, de, fr, it, es), 32-bit, SP1	A
• Windows 7 Ultimate, MUI (en, de, fr, it, es), 64-bit, SP1	B
• Windows 10 Enterprise 2015 LTSB, multi-language (en, de, fr, it, es), 64-bit	C
• Windows 10 Enterprise 2016 LTSB, multi-language (en, de, fr, it, es), 64-bit (for Pentium / Core i5)	D
• Windows 10 Enterprise 2016 LTSB, multi-language (en, de, fr, it, es), 64-bit (for Core i7 / Xeon)	E
• Windows Server 2008 R2 Standard Edition, 64-bit SP1 incl. 5 clients, multi-language (en, de, fr, it, es)	F
• Windows Server 2012 R2 Standard Edition incl. 5 clients, 64-bit, MUI (en, de, fr, it, es)	G
• Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit)	H
• Without operating system	X
Expansions (software)	
• SIMATIC IPC DiagMonitor software enclosed	A
• SIMATIC IPC Image & Partition Creator software included	B
• SIMATIC IPC DiagMonitor + Image & Partition Creator software enclosed	C
• Without expansions (software)	X
• Without expansions (software) / TPM 2.0 [3] (not for China or Russia)	Y
Country-specific versions	
• Without power supply cord	0
• Power cord for Europe	1
• Power cord for the USA	2
• Power cord for China	3

[1] Only with mainboard with C236 chipset

[2] Not for use with short enclosure

[3] TPM = Trusted Platform Module

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.

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Rack PC

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Ordering data	Article No.
Preferred types (available at short notice from stock)	
SIMATIC IPC547G (Rack PC, 19", 4 U)	
Configuration 1	**6AG4104-4AA05-3XX0**
• Pentium G4400 (2C/2T, 3.3 GHz, 3 MB cache) • Mainboard with chipset H110 1x 1 TB HDD, internal • 4 GB DDR4 SDRAM (1x 4 GB) • Painted enclosure • 100/240 V AC industrial power supply • Serial (COM2) + parallel (LPT) • Without power supply cord	
Configuration 2	**6AG4104-4GN16-4BX0**
• Core i5-6500 (4C/4T, 3.2 (3.6) GHz, 6 MB Cache, iAMT) • Mainboard with C236 chipset • RAID1, 1 TB (2x 1 TB HDD) in removable tray, hot-swappable, front-mounted • 8 GB DDR4 SDRAM (2 x 4 GB), dual channel • Painted enclosure • 100/240 V AC industrial power supply • DVD +/-RW (slim) • Serial (COM2) + parallel (LPT) • Adapter cable DP to VGA for onboard graphics • Windows 7 Ultimate, MUI (en, de, fr, it, es), 64-bit, SP1 • Without power supply cord	
Configuration 3	**6AG4104-4HP18-5BX0**
• Core i7-6700 (4C/8T, 3.4 (4.0) GHz, 8 MB cache, iAMT) • Mainboard with C236 chipset • RAID1, 1 TB (2x 1 TB HDD Enterprise), in removable tray, hot-swappable, front-mounted • 8 GB DDR4 SDRAM (2x 4 GB), dual channel • Painted enclosure • 2x 100/240V AC redundant industrial power supply • DVD +/-RW (slim) • Serial (COM2) + parallel (LPT) • PCIe x16 graphics card (dual head: 2x VGA/2x DVI-D), 1 GB • Windows 7 Ultimate, MUI (en, de, fr, it, es), 64-bit, SP1 • Without power supply cord	

	Article No.
Accessories	
Memory expansions	
• 4 GB DDR4-2133 SDRAM	**6ES7648-2AL60-0PA0**
• 8 GB DDR4-2133 SDRAM	**6ES7648-2AL70-0PA0**
• 16 GB, DDR4-2133 SDRAM	**6ES7648-2AL80-0PA0**
Removable drive bay for 3.5'' hard disk or 2.5'' solid-state drive, SATA (without hard disk drive/ solid-state drive)	**6ES7648-0EH00-1BA0**
Tower Kit IPC547G To convert the computer into an industrial tower PC	
• Standard enclosure version	**6ES7648-1AA01-0XC0**
• Short enclosure version	**6ES7648-1AA01-0XE0**
Adapter cable	
• DisplayPort to DVI-D for on-board graphics	**6ES7648-3AF00-0XA0**
• DisplayPort to VGA for on-board graphics	**6ES7648-3AG00-0XA0**
Retainer For mechanically interlocking the internal USB port	**6ES7648-1AA00-0XK0**

Additional information is available on the Internet at:

http://www.siemens.com/ipc547g