

SIMATIC IPC547G (Rack PC, 19", 4HU); Interfaces: 2x USB 3.0 on the front; 2x Intel Gigabit Ethernet, 2x PS/2, Audio on the rear side; 7 slots: 5x PCI Express, 2x PCI, Temperature and Fan monitoring; Watchdog; Card retainer Xeon E3-1275 v5 (4C/8T, 3.6 (4.0) GHz, 8 MB cache, iAMT); Mainboard: (chipset C236, 1x DVI-D, 2x display ports V1.2, 4x USB 3.0 and 4x USB 2.0 on the rear side, 1x USB 2.0 internal, 1x COM 1; RAID onboard) RAID5, 4 TB (3x 2 TB HDD Enterprise), in interchangeable insert hot-swap and 1x 2 TB HDD Enterprise as hot spare in interchangeable insert, on front; (to +35 °C) 32 GB DDR4 SD-RAM (2x 16 GB), Dual Channel Enclosure blue chromated, 2x 100/240V AC redundant Industrial power supply unit, DVD +/-RW (slim) Graphics onboard Windows Server 2012 R2 Standard edition incl. 5 clients, MUI (en/de/fr/it/es), 64 bit SIMATIC IPC DiagMonitor V5.0 enclosed Power supply cable USA

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	
<ul style="list-style-type: none"> Rated value 50 Hz Rated value 60 Hz 	<p>Yes</p> <p>Yes</p>
Mains buffering	
<ul style="list-style-type: none"> 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)

Memory	
Main memory	4 GB to 64 GB DDR4-2133 SDRAM
Capacity of main memory, max.	64 Gbyte

Hardware configuration	
Slots	
<ul style="list-style-type: none"> 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 lane) 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 chipset): 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	
<ul style="list-style-type: none"> Audio In/Out Microphone In 	Yes Yes
Video interfaces	

<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • Industrial Ethernet interface 	2x Ethernet (RJ45)
<ul style="list-style-type: none"> — 100 Mbps 	Yes
<ul style="list-style-type: none"> — 1000 Mbps 	Yes

Integrated Functions	
Monitoring functions	
<ul style="list-style-type: none"> • Temperature monitoring 	Yes
<ul style="list-style-type: none"> • Watchdog 	Yes
<ul style="list-style-type: none"> • Status LEDs 	POWER, HDD, TEMP, FAN, HDD0 ALARM, HDD1 ALARM, HDD2 ALARM, HDD3 ALARM
<ul style="list-style-type: none"> • Fan 	Yes
<ul style="list-style-type: none"> • Monitoring function via network 	Optional

EMC	
Interference immunity against discharge of static electricity	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • Interference immunity on signal cables >30m 	±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge
<ul style="list-style-type: none"> • Interference immunity on signal cables < 30m 	±1 kV acc. to IEC 61000-4-4, Burst
Interference immunity against voltage surge	
<ul style="list-style-type: none"> • asymmetric interference 	±2 kV acc. to IEC 61000-4-5, surge asymmetric
<ul style="list-style-type: none"> • symmetric interference 	±1 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity to magnetic fields	
<ul style="list-style-type: none"> • Interference immunity to magnetic fields at 50 Hz 	30 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
<ul style="list-style-type: none"> • 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

Standards, approvals, certificates

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	
<ul style="list-style-type: none"> Ambient temperature during operation 	0 °C to +40 °C in full configuration (no burner mode), at +5 °C to +35 °C without limitation
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> min. max. 	-20 °C 60 °C
Relative humidity	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> 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/s ² (0.2 g)
Shock testing	
<ul style="list-style-type: none"> Shock load during operation 	Tested according to IEC 60068-2-27; half-sine: 9.8 m/s ² (1 g), 20 ms, 100 shocks per axis

Operating systems

pre-installed 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)
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
last modified:	02/13/2020