

**PC-based Automation**

Industrial PC

Box PC

**SIMATIC IPC627E****Overview**

**SIMATIC IPC627E (Box PC): The high-end IPC with maximum performance, functional scope, and expansion capability**

It offers:

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

**Technical specifications**

Article number	<b>6AG4131-3....-....</b> SIMATIC IPC627E (Box PC)
<b>Installation type/mounting</b>	
Mounting	Wall mounting, portrait mounting
Design	Box PC, built-in unit
<b>Supply voltage</b>	
Type of supply voltage	100/240 V AC (autorange); 24 V DC
<b>Line frequency</b>	
• Rated value 50 Hz	Yes
• Rated value 60 Hz	Yes
<b>Mains buffering</b>	
• Mains/voltage failure stored energy time	20 ms
<b>Processor</b>	
Processor type	Celeron G4900 (2C/2T, 3.1 GHz, 2 MB cache; VT-d); Core i3-8100 (4C/4T, 3.6 GHz, 6 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d, AMT)
Chipset	Intel C246
<b>Graphic</b>	
Graphics controller	Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron)
<b>Drives</b>	
Hard disk	2.5" SATA ≥ 320 GB
SSD	Yes; M.2 SSD NVMe > 512 GB; SSD 2.5" SATA > 480 GB; RAID1 2x SSD 2.5" > 480 GB in removable drive bay
<b>Memory</b>	
Type of memory	DDR4-2666 DIMM
Main memory	4 / 8 / 16 / 32 / 64 GB
<b>Data areas and their retentivity</b>	
Retentive data area (incl. timers, counters, flags), max.	512 kbyte
<b>Hardware configuration</b>	
<b>Slots</b>	
• free slots	2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); with card retainer
<b>Interfaces</b>	
Number of industrial Ethernet interfaces	3; 3x Gigabit Ethernet (IE/PN), RJ45
USB port	6x USB 3.1 Gen. 2 (2x type C)
Connection for keyboard/mouse	USB / USB
serial interface	1x COM
<b>Video interfaces</b>	
• Graphics interface	2x DisplayPort; 1x DVI-D
<b>Industrial Ethernet</b>	
• Industrial Ethernet interface	3x Gigabit Ethernet (IE/PN), RJ45
- 100 Mbps	Yes
- 1000 Mbps	Yes

**Technical specifications (continued)**

Article number	<b>6AG4131-3....-....</b> SIMATIC IPC627E (Box PC)	Article number	<b>6AG4131-3....-....</b> SIMATIC IPC627E (Box PC)
<b>Integrated Functions</b>		<b>Standards, approvals, certificates</b>	
<b>Monitoring functions</b>		CE mark	Yes
• Temperature monitoring	Yes	cULus	Yes; UL 61010-2-201 Second Edition; CAN/CSA-C22.2 No. 61010-2-201 Second Edition
• Watchdog	Yes	RCM (formerly C-TICK)	Yes
• Status LEDs	Yes	KC approval	Yes
• Fan	Yes	EAC (formerly Gost-R)	Yes
• Monitoring function via network	Optional	FCC	Yes
<b>EMC</b>		EMC	CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005
<b>Interference immunity against discharge of static electricity</b>		<b>Ambient conditions</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>Ambient temperature during operation</b>	
<b>Interference immunity against high-frequency electromagnetic fields</b>		• Ambient temperature during operation	+5 °C up to 55 °C
• Interference immunity against high frequency radiation	10 V/m for 80 ... 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6	<b>Relative humidity</b>	
<b>Interference immunity to cable-borne interference</b>		• Relative humidity	Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5% to 80% at 25 °C (no condens.), Storage: 5% to 95% at 25 °C (no condensation)
• 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	<b>Vibrations</b>	
• Interference immunity on signal cables >30m	±2 kV acc. to IEC 61000-4-5, surge, length > 30 m	• 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 <sup>2</sup> (1g)
• 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>Shock testing</b>	
<b>Interference immunity against voltage surge</b>		• Shock load during operation	Tested to DIN IEC 60068-2-29: 50 m/s <sup>2</sup> (5 g), 30 ms, 100 shocks
• asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric	<b>Operating systems</b>	
• symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric	Operating system	Windows 10 Enterprise 2016 LTSP, 64 bit, MUI
<b>Interference immunity to magnetic fields</b>		pre-installed operating system	Yes
• Interference immunity to magnetic fields at 50 Hz	100 A/m; to IEC 61000-4-8	without operating system	Yes
<b>Emission of conducted and non-conducted interference</b>		<b>pre-installed operating system</b>	
• Interference emission via line/AC current cables	EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A	• Windows 10 Enterprise	Yes; Windows 10 Enterprise 2016 LTSP, 64 bit, MUI
<b>Degree and class of protection</b>		<b>Dimensions</b>	
IP (at the front)	IP20	Width	314 mm
IP (rear)	IP20	Height	93 mm
		Depth	301 mm; incl. mounting rail

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Box PC

## SIMATIC IPC627E

### Ordering data

#### SIMATIC IPC627E<sup>1)</sup>

UHD graphics onboard;  
2x DP; 1x DVI-D;  
3x Gigabit Ethernet (IE/PN) RJ45;  
6x USB 3.1 Gen. 2;  
1x serial (COM1);  
RAID controller onboard;  
watchdog, temperature/fan  
monitoring

Processor:

- Intel Celeron G4900 (2C/2T,  
3.1 GHz, 2 MB cache; VT-d)
- Intel Celeron G4900 (2C/2T,  
3.1 GHz, 2 MB cache; VT-d);  
NVRAM
- Intel Core i3-8100 (4C/4T,  
3.6 GHz, 6 MB cache, VT-d)
- Intel Core i3-8100 (4C/4T,  
3.6 GHz, 6 MB cache, VT-d);  
NVRAM
- Core i7-8700 (6C/12T,  
3.2 (4.6) GHz, 12 MB cache,  
VT-d, AMT)
- Core i7-8700 (6C/12T,  
3.2 (4.6) GHz, 12 MB cache,  
VT-d, AMT); NVRAM

Drives:

- HDD 2.5" SATA 320 GB internal
- SSD 2.5" SATA 480 GB internal
- SSD 2.5" SATA 960 GB internal
- RAID1 2x SSD 2.5" SATA 480 GB  
internal
- RAID1 2x SSD 2.5" SATA 480 GB  
in removable drive bay
- RAID1 2x SSD 2.5" SATA 960 GB  
in removable drive bay
- M.2 SSD NVMe 512 GB
- M.2 SSD NVMe 512 GB;  
HDD 2.5" SATA 320 GB internal
- M.2 SSD NVMe 512 GB;  
SSD 2.5" SATA 480 GB internal
- M.2 SSD NVMe 512 GB;  
SSD 2.5" SATA 960 GB internal
- M.2 SSD NVMe 512 GB;  
RAID1 2x SSD 2.5" SATA 480 GB  
in removable drive bay
- M.2 SSD NVMe 512 GB;  
2 removable drive bays  
without media

### Article No.

Article No.	3	4	5	6	7	8	9	10	11	12
6AG4131-										
	A									
	B									
	C									
	D									
	G									
	H									
	A									
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	M									
	Q									
	S									

### Article No.

#### SIMATIC IPC627E<sup>1)</sup>

Memory configuration:

- 4 GB DDR4-2666 (1x 4 GB)
- 8 GB DDR4-2666 (2x 4 GB)
- 16 GB DDR4-2666 (2x 8 GB)
- 32 GB DDR4-2666 (2x 16 GB)
- 64 GB DDR4-2666 (4x 16 GB)

0  
1  
2  
3  
4Power supplies:

- 24 V DC industrial power supply
- 110/230 V AC industrial power  
supply with NAMUR; without  
power cable
- 110/230 V AC industrial power  
supply unit with NAMUR; power  
supply cord Europe
- 110/230 V industrial power supply  
unit with NAMUR; power supply  
cord USA
- 110/230 V industrial power supply  
unit with NAMUR; power supply  
cord China

0  
1  
2  
3  
4Operating system:

- Windows 10 Enterprise 2016  
LTSC, 64-bit, MUI (en, de, fr, it, sp);  
for Celeron and i3
- Windows 10 Enterprise 2016  
LTSC, 64-bit, MUI (en, de, fr, it, sp),  
for Core i7
- Without operating system

0  
1  
8Expansion (SW):

- Without expansion
- SIMATIC IPC DiagMonitor includ-  
ed
- SIMATIC IPC Image & Partition  
Creator included
- SIMATIC IPC DiagMonitor, Image  
& Partition Creator included
- TPM<sup>2)</sup> (not for China or Russia)

A  
B  
C  
D  
XExpansion (HW):

- Without expansion (HW)
- 2 x USB in addition (1 slot occu-  
pied)
- Device without CMOS battery  
(CR2450N)

A  
B  
C2nd expansion (HW):

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

0  
1  
2

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

<sup>2)</sup> 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.

Ordering data	Article No.
<b>Accessories</b>	
<b>Memory expansion</b>	
• 4 GB DDR4 2666 SDRAM, DIMM	<b>6ES7648-2AL60-0QA0</b>
• 8 GB DDR4 2666 SDRAM, DIMM	<b>6ES7648-2AL70-0QA0</b>
• 16 GB DDR4 2666 SDRAM, DIMM	<b>6ES7648-2AL80-0QA0</b>
<b>Assembly kit for portrait mounting</b>	
• Upward or downward interface outlet	<b>6ES7648-1AA10-2YA0</b>
• Interface outlet to the front	<b>6ES7648-1AA10-2YB0</b>
<b>SIMATIC PC power cable</b>	
For Box PC and Panel PC, 230 V AC, angled, 3 m	
• For Germany, France, Spain, the Netherlands, Belgium, Sweden, Austria, Finland	<b>6ES7900-1AA00-0XA0</b>
• For United Kingdom	<b>6ES7900-1BA00-0XA0</b>
• For Switzerland	<b>6ES7900-1CA00-0XA0</b>
• For the USA	<b>6ES7900-1DA00-0XA0</b>
• For Italy	<b>6ES7900-1EA00-0XA0</b>
• For China	<b>6ES7900-1FA00-0XA0</b>

Further information can be found on the Internet at:

<http://www.siemens.com/simatic-pc>