SIEMENS

Data sheet

6AG4131-3CC10-2AA2

SIMATIC IPC627E (Box PC), UHD Graphics onboard; DP/DVI-D; 3x Gigbit Ethernet (IE/PN); 6x USB V3.1 Gen.2; 1x serial (COM 1); RAID controller onboard; Watchdog, temperature and fan monitoring; Core i3-8100 (4C/4T, 3.6 GHz, 6 MB cache, VT-d); SSD 2.5" SATA 480 GB internal; 8 GB DDR4-2666 (2x4); 24 V DC industrial power supply Windows 10 Enterprise 2019 LTSC, 64-bit, MUI (en, de, fr, it, es) For Celeron and Core I3; without expansion (software); without expansion (HW); 2x PCIe (x16, x4)

Mounting		(NV), 2X PCIE (X 10, X4)
Design	Installation type/mounting	
Type of supply voltage Type of supply voltage Line frequency	Mounting	Wall mounting, portrait mounting
Type of supply voltage	Design	Box PC, built-in unit
Rated value 50 Hz	Supply voltage	
• Rated value 50 Hz • Rated value 50 Hz • Rated value 60 Hz Mains buffering • Mains/voltage failure stored energy time 20 ms Processor 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 i7-9700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d, AMT) Intel C246 Graphic Graphic scontroller Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron) Drives Hard disk 2.5° SATA ≥ 320 GB SSD Yes; SSD M.2 NVMe 512 GB; SSD 2.5° SATA 480 / 960 GB; RAID1 2x SSD 2.5° SATA 480 / 960 GB in removable drive bay Momory Type of memory DDR4-2666 DIMM Main memory 4 / 8 / 16 / 32 / 64 GB Capacity of main memory, max. Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 512 kbyte; 128 KB can be stored in the buffer time Hardware configuration Slots • free slots • Number of PCI slots • Number of Reyboard/mouse Serial interfaces Number of Reyboard/mouse serial interface USB / USB serial interfaces 1x COM Video interfaces	Type of supply voltage	100/240 V AC (autorange); 24 V DC
Rated value 60 Hz Mains buffering Mains/voltage failure stored energy time Processor 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); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz,	Line frequency	
Mains buffering • Mains/voltage failure stored energy time 20 ms Processor 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 Graphic Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron) Drives Hard disk SSD Yes; SSD M.2 NVMe 512 GB; SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB in removable drive bay Memory DR4-2666 DIMM Main memory 4 / 8 / 16 / 32 / 64 GB Capacity of main memory, max. 94 Gbyte Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 512 kbyte; 128 KB can be stored in the buffer time Hardware configuration Slots 2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (1x16, 2x4, 2x1); with card retainer • Number of PCI slots • Number of PCI slots 5; Optional Interfaces 3; 3x Ethernet (RJ45) Number of industrial Ethernet interfaces 3; 3x Ethernet (RJ45) USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse 1x COM	Rated value 50 Hz	Yes
◆ Mains/voltage failure stored energy time 20 ms Processor 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); Core I7-8700 (6C/12T, 3.2 CPC); Core I7-8700 (6C/12T, 3.2 CPC); Core I7-8700 (6C/12T, 3.2	Rated value 60 Hz	Yes
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	Mains buffering	
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 Graphic Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron) Drives Hard disk 2.5" SATA ≥ 320 GB SSD Yes; SSD M.2 NVMe 512 GB; SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB in removable drive bay Memory DDR4-2666 DIMM Main memory 4 / 8 / 16 / 32 / 64 GB Capacity of main memory, max. Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 512 kbyte; 128 KB can be stored in the buffer time Hardware configuration Slots Slots 2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4, x4); 5x PCIe (1x16, 2x4, 2x1); with card retainer • Number of PCI slots 5; Optional • Number of industrial Ethernet interfaces 3; 3x Ethernet (RJ45) USB / USB 1x COM Video interfaces 1x COM	 Mains/voltage failure stored energy time 	20 ms
Chipset	Processor	
Graphic Graphics controller Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron) Drives Hard disk 2.5" SATA ≥ 320 GB SSD Yes, SATA ≥ 820 M.2 NVMe 512 GB; SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB in removable drive bay Memory Type of memory DDR4-2666 DIMM Main memory 4 / 8 / 16 / 32 / 64 GB Capacity of main memory, max. Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 512 kbyte; 128 KB can be stored in the buffer time Hardware configuration Slots • free slots • free slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces USB 7 USB serial interface 1x COM Video interfaces	Processor type	GHz, 6 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache,
Graphics controller Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron) Drives	Chipset	Intel C246
Hard disk SSD Yes; SSD N.2 NVMe 512 GB; SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB in removable drive bay Memory Type of memory DDR4-2666 DIMM Main memory 4 / 8 / 16 / 32 / 64 GB Capacity of main memory, max. 64 Gbyte Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Hardware configuration Slots • free slots • free slots 2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (x16, 2x4, 2x1); with card retainer • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces USB port Connection for keyboard/mouse serial interface 1x COM Video interfaces	Graphic	
Hard disk 2.5" SATA ≥ 320 GB Yes; SSD M.2 NVMe 512 GB; SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB in removable drive bay Memory Type of memory DDR4-2666 DIMM Main memory Capacity of main memory, max. 64 Gbyte Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Hardware configuration Slots • free slots • free slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Spotional Interfaces Number of industrial Ethernet interfaces USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse serial interface 1x COM Video interfaces	Graphics controller	Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron)
Yes; SSD M.2 NVMe 512 GB; SSD 2.5" SATA 480 / 960 GB; RAID1 2x SSD 2.5" SATA 480 / 960 GB in removable drive bay Memory Type of memory DDR4-2666 DIMM Main memory 4 / 8 / 16 / 32 / 64 GB Capacity of main memory, max. 64 Gbyte Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Hardware configuration Slots • free slots 2x PCI; optional: 1x PCI & 1x PCI & 1x PCI e (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (1x16, 2x4, 2x1); with card retainer • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse serial interface 1x COM Video interfaces	Drives	
Memory Type of memory Main memory Capacity of main memory, max. Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Hardware configuration Slots • free slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of exploration Interfaces Number of exploration Slots 0 (x16, x4); 5x PCIe (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, 2x4, 2x1); with card retainer • Number of PCI slots • Number of PCI slots • Number of exploration Interfaces Number of industrial Ethernet interfaces USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse serial interface Video interfaces	Hard disk	2.5" SATA ≥ 320 GB
Type of memory Main memory Capacity of main memory, max. Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Hardware configuration Slots • free slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces Sign of the slots Si	SSD	
Main memory Capacity of main memory, max. Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. Hardware configuration Slots • free slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces Substaction 1	Memory	
Capacity of main memory, max. Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 512 kbyte; 128 KB can be stored in the buffer time Hardware configuration Slots • free slots • free slots • Number of PCI slots • Number of PCI slots • Number of PCI slots 15; Optional Interfaces Number of industrial Ethernet interfaces USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse serial interfaces 1x COM Video interfaces	Type of memory	DDR4-2666 DIMM
Data areas and their retentivity Retentive data area (incl. timers, counters, flags), max. 512 kbyte; 128 KB can be stored in the buffer time Hardware configuration Slots • free slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces USB port Connection for keyboard/mouse serial interfaces Video interfaces Video interfaces	Main memory	4 / 8 / 16 / 32 / 64 GB
Retentive data area (incl. timers, counters, flags), max. Hardware configuration Slots • free slots • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces Substitute of the slots of the slots of the solution of the slots of t	Capacity of main memory, max.	64 Gbyte
Hardware configuration Slots ● free slots PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (1x16, 2x4, 2x1); with card retainer Number of PCI slots Number of PCI slots Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces String port	Data areas and their retentivity	
Slots • free slots • free slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of PCI slots • Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces USB port • Super Street (RJ45) USB yort • Super Street (RJ45) USB / USB serial interface 1x COM	Retentive data area (incl. timers, counters, flags), max.	512 kbyte; 128 KB can be stored in the buffer time
 free slots 2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (1x16, 2x4, 2x1); with card retainer Number of PCI slots Number of PCI slots 5; Optional Interfaces Number of industrial Ethernet interfaces 3; 3x Ethernet (RJ45) USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse USB / USB serial interfaces 1x COM 	Hardware configuration	
(x16, x4); 5x PCIe (1x16, 2x4, 2x1); with card retainer • Number of PCI slots • Number of PCI slots 5; Optional Interfaces Number of industrial Ethernet interfaces 3; 3x Ethernet (RJ45) USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse serial interface 1x COM Video interfaces	Slots	
● Number of PCI slots 5; Optional Interfaces Number of industrial Ethernet interfaces 3; 3x Ethernet (RJ45) USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse USB / USB serial interface 1x COM Video interfaces	• free slots	
Interfaces Number of industrial Ethernet interfaces 3; 3x Ethernet (RJ45) USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse USB / USB serial interface 1x COM Video interfaces	Number of PCI slots	5; Optional
Number of industrial Ethernet interfaces 3; 3x Ethernet (RJ45) USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse USB / USB serial interface 1x COM Video interfaces	Number of PCI slots	5; Optional
USB port 6x USB 3.1 Gen. 2 (2x type C) Connection for keyboard/mouse USB / USB serial interface 1x COM Video interfaces	Interfaces	
Connection for keyboard/mouse USB / USB serial interface 1x COM Video interfaces	Number of industrial Ethernet interfaces	3; 3x Ethernet (RJ45)
serial interface 1x COM Video interfaces	USB port	6x USB 3.1 Gen. 2 (2x type C)
Video interfaces	Connection for keyboard/mouse	USB / USB
	serial interface	1x COM
Graphics interface 2x DisplayPort: 1x DVI-D	Video interfaces	
	Graphics interface	2x DisplayPort; 1x DVI-D
Industrial Ethernet	Industrial Ethernet	
• Industrial Ethernet interface 3x Ethernet (RJ45)	Industrial Ethernet interface	3x Ethernet (RJ45)
— 100 Mbps Yes	— 100 Mbps	Yes
— 1000 Mbps Yes	— 1000 Mbps	Yes
Integrated Functions	Integrated Functions	
Monitoring functions	Monitoring functions	
• Temperature monitoring Yes	Temperature monitoring	Yes
Watchdog Yes	Watchdog	Yes

Status LEDs	1x power, 3x user
• 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 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
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
Degree and class of protection	
IP degree of protection	IP20
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
FCC	Yes
EMC	CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005
Marine approval	
American Bureau of Shipping (ABS)	Yes
Det Norske Veritas (DNV)	Yes
Nippon Kaiji Kyokai (Class NK)	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	5 °C
• max.	55 °C
Ambient temperature during storage/transportation	
min.	-20 °C
• max.	60 °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/s² (1 g)
Shock testing	
Shock load during operation	Tested to DIN IEC 60068-2-29: 50 m/s² (5 g), 30 ms, 100 shocks
Operating systems	
pre-installed operating system	Windows 10 Enterprise 2016 LTSB or 2019 LTSC 64-bit, MUI
without operating system	Yes; Optional
pre-installed operating system	, .,
Windows 10 Enterprise	Yes; Windows 10 Enterprise 2016 LTSB or 2019 LTSC 64-bit, MUI
Software	
SIMATIC Software	Optional package with SIMATIC WinCC
Dimensions	· · ·

Width	314 mm
Height	93 mm; For variant 5x PCI(e): 155 mm
Depth	301 mm; incl. mounting rail

last modified:

8/4/2020 🗗