## **SIEMENS**

## **Data sheet**

## 6AG4131-3DC13-2AA0

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); NVRAM; SSD 2.5" SATA 480 GB internal; 8 GB DDR4-2666 (2x4); 110/230 V AC industrial power supply unit with NAMUR; Power supply cable USA; 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 PCI

Mounting   Wall mounting, portrait mounting   Design   Box PC, built-in unit   Supply voltage   100/240 V AC (autorange); 24 V DC   Interespency   • Rated value 50 Hz   Yes   • Rated value 60 Hz   Yes   Mains-voltage failure stored energy time   20 ms   Processor   Processor   Processor   Cleiron G4900 (2C/2T, 3.1 GHz, 2 MB cache, VT-d); Core (3.8100 (4C/4T, 3.6 GHz, 16 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache, VT-d); Core (7.8700 (6C/12T, 3.2 M	Installation type/mounting	
Supply voltage	Mounting	Wall mounting, portrait mounting
Type of supply voltage	Design	Box PC, built-in unit
Line frequency	Supply voltage	
Rated value 50 Hz     Rated value 60 H	Type of supply voltage	100/240 V AC (autorange); 24 V DC
■ Rated value 60 Hz	Line frequency	
Mains buffering     • Mains/voltage failure stored energy time     • Mains/voltage failure stored energy time     Processor	Rated value 50 Hz	Yes
◆ Mains/voltage failure stored energy time         20 ms           Processor         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, MT-d, MT)           Chipset         Intel C246           Graphic         Graphic scontroller           Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron)           Drives         Pres: 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         DDR4-2666 DIMM           Main memory         4 / 8 / 16 / 32 / 64 GB           Capacity of main memory, max.         D4 Gyte           Data areas and their retentivity         Retentive data area (incl. timers, counters, flags), max.           Hardware configuration         512 kbyte; 128 KB can be stored in the buffer time           1 Number of PCI slots         5; Optional           • Free slots         2x PCI: optional: 1x PCI & 1x PCIe (x16): 2x PCIe (x4, x16): 3x PCI & 2x PCIe (x16, x4): 5x PCIe (x116, 2x4, 2x1); with card retainer           • Number of PCI slots         5; Optional           • Number of Industrial Ethemet interfaces         3; 3x Ethemet (RJ45)           USB y USB         2x DisplayPort; 1x DVI-D           Industrial Ethemet         4 Craphics interface           • Craphics interface         2x DisplayPort; 1x DVI-D <td>Rated value 60 Hz</td> <td>Yes</td>	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)   Intel C246   Graphic   Intel C246   Graphic Graphic sontroller   Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron)   Drives	Mains buffering	
Processor type	Mains/voltage failure stored energy time	20 ms
GHz, 6 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.8) GHz, 12 MB cache, VT-d, AMT)   Chipset	Processor	
Graphics controller         Intel UHD Graphics 630 (Core I); Intel UHD Graphics 610 (Celeron)           Drives           Hard disk         2.5" SATA ≥ 320 GB           SSD         Yes; SSD M.2 RVW6 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, max.         64 GByte           Capacity of main memory, max.         64 Gbyte           Data areas and their rotentivity           Retentive data area (incl. timers, counters, flags), max.         512 kbyte; 128 KB can be stored in the buffer time           Hardware confliguration           Slots           6 free slots         2x PCI; optional: 1x PCI & 1x PCIe (x16); 2x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (x16, x4); 5x PCIe (x4, x16); 3x PCI & 2x PCIe (x16, x4); 5x PCIe (x16, x4	Processor type	GHz, 6 MB cache, VT-d); Core i7-8700 (6C/12T, 3.2 (4.6) GHz, 12 MB cache,
Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron)	Chipset	Intel C246
Drives	Graphic	
Hard disk   2.5" SATA ≥ 320 GB	Graphics controller	Intel UHD Graphics 630 (Core i); Intel UHD Graphics 610 (Celeron)
SSD Yes; SSD M.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.  Fardware 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 / USB  serial interface  • Oraphics interface  • Oraphics interface  • Industrial Ethernet  • Industrial Ethernet interface  3x Ethernet (RJ45)  Yes  Integrated Functions  Monitoring functions  • Temperature monitoring  Yes	Drives	
Memory Type of memory Main memory A / 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 • Number of PCI slots • Sc Optional Interfaces  Number of industrial Ethernet interfaces USB port Connection for keyboard/mouse serial interface • USB 7 / USB serial interface • Industrial Ethernet interface  3x Ethernet (RJ45)  USB port  4x COM  Video interfaces • Graphics interface  1x COM  Video interface • 1x	Hard disk	2.5" SATA ≥ 320 GB
Type of memory  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  • 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 interface  • Graphics interface  • Industrial Ethernet interface  • Industrial	SSD	
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. 512 kbyte; 128 KB can be stored in the buffer time  Hardware configuration  Slots  • free slots  • free slots  • Number of PCI slots  • Number of industrial Ethernet interfaces  Number of industrial Ethernet interface  1x COM  Video interfaces  • Graphics interface  • Industrial Ethernet i	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  USB port  Connection for keyboard/mouse  serial interface  • Graphics interface  Industrial Ethernet • Industrial Ethernet interface  • Industrial Ethernet • Industrial Ethernet interface  1x COM  Video interfaces  • Graphics interface  1x COM  Industrial Ethernet • Industrial Ethernet interface  1x COM  Video interfaces  • Graphics interface  1x COM  Video interf	Type of memory	DDR4-2666 DIMM
Data areas and their retentivity  Retentive data area (incl. timers, counters, flags), max.  #### Star Substance      Star Substance	Main memory	4 / 8 / 16 / 32 / 64 GB
Retentive data area (incl. timers, counters, flags), max.  Hardware configuration  Siots  Interfaces  Number of PCI slots  Number of industrial Ethernet interface  Serial interface  Ordinaterface  Ordinaterface  Industrial Ethernet  Industrial Ethernet  Industrial Ethernet  Industrial Ethernet  Industrial Ethernet interface  Ordinaterface  Industrial Ethernet interface  Industrial Ethernet interface  Industrial Ethernet  Industrial Ethernet interface  Industria	Capacity of main memory, max.	64 Gbyte
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 • Si Optional  Interfaces  Number of industrial Ethernet interfaces  USB port  Connection for keyboard/mouse serial interface  • Graphics interface  Industrial Ethernet • Industrial Ethernet interface  - 100 Mbps - 100 Mbps - 100 Mbps - 1000 Mbps  Yes  Integrated Functions  Monitoring functions • Temperature monitoring  Yes	Data areas and their retentivity	
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, x4); 5x PCIe (x16, x4); 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  • Graphics interface  1x COM  Industrial Ethernet  • Industrial Ethernet  • Industrial Ethernet  • Industrial Ethernet interface  3x Ethernet (RJ45)  Yes  Integrated Functions  Monitoring functions  • Temperature monitoring  Yes	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 (x16, x4); 5x PCIe (x16, 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  Graphics interface  2x DisplayPort; 1x DVI-D  Industrial Ethernet  Industrial Ethernet interface  3x Ethernet (RJ45)  - 100 Mbps  Yes  Integrated Functions  Monitoring functions  Temperature monitoring  Yes	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  USB port  Connection for keyboard/mouse  serial interface  • Graphics interface  • Graphics interface  • Industrial Ethernet interface  • Industrial Ethernet interface  • Industrial Ethernet interface  • Industrial Ethernet interface  - 100 Mbps  - 100 Mbps  Yes  Integrated Functions  Monitoring functions  • Temperature monitoring  Yes	Slots	
Number of PCI 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  • Graphics interface  1x DVI-D  Industrial Ethernet  • Industrial Ethernet interface  - 100 Mbps  - 100 Mbps  Yes  Integrated Functions  Monitoring functions  • Temperature monitoring  Yes	• 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  • Graphics interface  2x DisplayPort; 1x DVI-D  Industrial Ethernet  • Industrial Ethernet interface  3x Ethernet (RJ45)  —100 Mbps —100 Mbps —Yes —1000 Mbps Yes  Integrated Functions  Monitoring functions  • Temperature monitoring  Yes	<ul> <li>Number of PCI slots</li> </ul>	5; Optional
Number of industrial Ethernet interfaces  USB port  6x USB 3.1 Gen. 2 (2x type C)  Connection for keyboard/mouse  USB / USB serial interface  1x COM  Video interfaces  • Graphics interface  1x DVI-D  Industrial Ethernet  • Industrial Ethernet interface  - 100 Mbps - 100 Mbps - 1000 Mbps Yes  Integrated Functions  Monitoring functions  • Temperature monitoring  Yes	<ul> <li>Number of PCI slots</li> </ul>	5; Optional
USB port  Connection for keyboard/mouse  USB / USB  serial interface  1x COM  Video interfaces  Graphics interface  2x DisplayPort; 1x DVI-D  Industrial Ethernet  Industrial Ethernet interface  Integrated Functions  Monitoring functions  Temperature monitoring  Yes	Interfaces	
Connection for keyboard/mouse  serial interface  1x COM  Video interfaces  Graphics interface  2x DisplayPort; 1x DVI-D  Industrial Ethernet  Industrial Ethernet interface  Industrial Ethernet interface  Industrial Ethernet interface  Yes  1000 Mbps  Yes  Integrated Functions  Monitoring functions  Temperature monitoring  Yes	Number of industrial Ethernet interfaces	3; 3x Ethernet (RJ45)
serial interface  Video interfaces  Graphics interface  Video interface  SubsplayPort; 1x DVI-D  Industrial Ethernet  Industrial Ethernet interface  Industrial Ethernet interface  Industrial Ethernet interface  Ves  Integrated Functions  Monitoring functions  Temperature monitoring  Yes	USB port	6x USB 3.1 Gen. 2 (2x type C)
Video interfaces   ● Graphics interface 2x DisplayPort; 1x DVI-D   Industrial Ethernet   ● Industrial Ethernet interface 3x Ethernet (RJ45)   — 100 Mbps Yes   — 1000 Mbps Yes   Integrated Functions   Monitoring functions   ● Temperature monitoring Yes	Connection for keyboard/mouse	USB / USB
● Graphics interface 2x DisplayPort; 1x DVI-D  Industrial Ethernet      ● Industrial Ethernet interface 3x Ethernet (RJ45)	serial interface	1x COM
Industrial Ethernet  Industrial Ethernet interface  Industrial Ethernet interface  Industrial Ethernet interface  Industrial Ethernet interface  Yes  Industrial Ethernet interface  Yes  Yes  Integrated Functions  Integrated Functions  Integrated Functions  Integrated Functions  Yes	Video interfaces	
● Industrial Ethernet interface 3x Ethernet (RJ45)  — 100 Mbps Yes  — 1000 Mbps Yes  Integrated Functions  Monitoring functions  ● Temperature monitoring Yes	Graphics interface	2x DisplayPort; 1x DVI-D
<ul> <li>— 100 Mbps</li> <li>— 1000 Mbps</li> <li>Yes</li> </ul> Integrated Functions Monitoring functions <ul> <li>Temperature monitoring</li> <li>Yes</li> </ul>	Industrial Ethernet	
— 1000 Mbps Yes  Integrated Functions  Monitoring functions  ◆ Temperature monitoring Yes	<ul> <li>Industrial Ethernet interface</li> </ul>	3x Ethernet (RJ45)
Integrated Functions  Monitoring functions  • Temperature monitoring  Yes	— 100 Mbps	Yes
Monitoring functions  • Temperature monitoring  Yes	— 1000 Mbps	Yes
Temperature monitoring     Yes	Integrated Functions	
	Monitoring functions	
Watchdog     Yes	<ul> <li>Temperature monitoring</li> </ul>	Yes
	<ul> <li>Watchdog</li> </ul>	Yes

Status LEDs	Av nounce 2v unor
• Status LEDS • Fan	1x power, 3x user Yes
Monitoring function via network	Optional
EMC	Орнопа
Interference immunity against discharge of static electricity	
Interference immunity against discharge of static	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC
electricity	61000-4-2
Interference immunity against high-frequency electromagnetic field	ds
<ul> <li>Interference immunity against high frequency radiation</li> </ul>	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
<ul> <li>Interference immunity on signal cables &gt;30m</li> </ul>	±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	
<ul> <li>asymmetric interference</li> </ul>	±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	N/
American Bureau of Shipping (ABS)  Pat Nazaka Vazitaz (RNV)	Yes
Det Norske Veritas (DNV)  Niconal (Sill Karlani (Olana NK))	Yes
Nippon Kaiji Kyokai (Class NK)	Yes
Ambient conditions	
Ambient temperature during operation	F **O
• min.	5 °C
• max.	55 °C
Ambient temperature during storage/transportation	-20 °C
min.     max.	-20 °C 60 °C
Relative humidity	
Relative humidity	Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5% to 80% at
Vibrations	25 °C (no condensation), Storage: 5% to 95% at 25 °C (no condensation)
Vibrations     Vibration resistance during operation acc. to IEC 60068-	tested according to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm; 58 Hz to
2-6 Shock testing	500 Hz 9.8 m/s <sup>2</sup> (1 g)
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:

7/5/2022