SIEMENS

Data sheet   **6BK1800-1HA02-0AA0**

*** no longer available *** SIMATIC IPC1047 - GPU (rack PC, 19", 4 U); 2x Intel Xeon E5-2620v4; 4x 8 GB DDR4 ECC SDRAM; 1x system SSD 480 GB; 1x GPU NVIDIA P5000; 2x Gbit Ethernet, IPMI, RJ45; 1x VGA, 1x COM 1, TPM1.2; 2x USB 3.0, 2x USB on the rear side; 2x USB 3.0 front; Windows 7 Professional 64-bit; ATX power supply 860 watt; temperature and fan monitoring; SW RAID onboard

Installation type/mounting	
Mounting	For horizontal rack mounting
Design	Rack PC, 19", 4U
Supply voltage	
Type of supply voltage	100/240V AC (autorange) 50/60 Hz
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 E5-2620 v4 (8C/16T, 2.1 (3.0) GHz, 20 MB cache)
Chipset	Intel PCH C612
Graphic	
Graphics controller	NVIDIA Quadro P5000, 2 560 cores, 16 GB DDR5
Drives	
Hard disk	1x 480 GB SSD
SSD	Yes
Memory	
Type of memory	DDR4-SDRAM DIMM
Main memory	32 GB, 2 400 MHz
Capacity of main memory, max.	2 Tbyte
Hardware configuration	
Slots	
● free slots	6 slots: 3x PCIe (x16), 3x PCIe (x8)
● Number of PCI slots	0
● Number of PCI slots	6
Interfaces	
Number of industrial Ethernet interfaces	2
Number of PROFINET interfaces	0
USB port	4x USB 3.0: 2x on rear, 2x on front; 2x USB 2.0: 2x on rear
Integrated Functions	
Monitoring functions	
● Temperature monitoring	Yes
● Status LEDs	POWER, HDD, FAN Fail
● Fan	Yes
● Monitoring function via network	Yes (per IPMI)
EMC	
Interference immunity against discharge of static electricity	
● Interference immunity against discharge of static	±4 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC

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electricity	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 >30m	±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge
● Interference immunity on signal cables < 30m	±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	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, 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 degree of protection	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
cULus	Yes
FCC	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	
● min.	0 °C
● max.	40 °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 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

Operating systems

pre-installed operating system	Windows 7 Professional x64 bit
pre-installed operating system	
● Windows 7	Yes

Dimensions

Width	430 mm
Height	176.6 mm; 4U
Depth	572 mm

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