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Data sheet 6GK1160-4AA01

product type designation	**CP 1604**
	Communications processor CP 1604 PC/104 plus card (32-bit; 33/66 MHz; 3.3/5 V) with asic ERTEC 400 for connection to PROFINET IO with 4-port real-time switch via Development kit DK-16XX PN IO; NCM PC.



transfer rate	
transfer rate	100 Mbit/s
interfaces	
number of electrical connections	
● at the 1st interface / according to Industrial Ethernet	4
● for power supply	1
type of electrical connection	
● at the 1st interface / according to Industrial Ethernet	RJ45 port via connection board
● for power supply	4-pole terminal block through power supply board
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
type of voltage supply / optional external power supply	Yes
supply voltage	
● 1 / from backplane bus	5 V
● external	5 V
● note	optional external power supply and external supply voltage alternatively via power supply board (optional accessory)
relative symmetrical tolerance / at DC	
● at 5 V	5 %
consumed current	
● 1 / from backplane bus / at DC / maximum	0.8 A
● from external supply voltage / at DC / at 24 V / maximum	0.3 A
power loss [W]	4 W
power loss [W] / in switch mode / maximum	4.1 W
ambient conditions	
ambient temperature	
● during operation	5 ... 60 °C
● during storage	-20 ... +60 °C
● during transport	-20 ... +60 °C
relative humidity / at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP00
design, dimensions and weights	
module format	PC/104-Plus
width	90 mm
height	24 mm
depth	95 mm
net weight	110 g
fastening method	Screw mounting

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product features, product functions, product components / general	
number of plug-in cards of same design / plug-in / per PC station	1
number of units / note	-
performance data / PROFINET communication / as PN IO controller	
software / for PROFINET IO communication / required	No
number of PN IO devices / on PROFINET IO controller / operable / total	128
number of PN IO IRT devices / on PROFINET IO controller / operable	64
data volume	
● as user data for input variables / as PROFINET IO controller / maximum	8192 byte
● as user data for output variables / as PROFINET IO controller / maximum	8192 byte
● as user data for input variables per PN IO device / as PROFINET IO controller / maximum	1430 byte
● as user data for output variables per PN IO device / as PROFINET IO controller / maximum	1430 byte
performance data / PROFINET communication / as PN IO device	
data volume	
● as user data for input variables / as PROFINET IO device / maximum	1430 byte
● as user data for output variables / as PROFINET IO device / maximum	1430 byte
● as user data for input variables / for each sub-module as PROFINET IO device	254 byte
● as user data for output variables / for each sub-module as PROFINET IO device	254 byte
● as user data for the consistency area for each sub-module	254 byte
number of submodules / per PROFINET IO-Device	64
product functions / management, configuration, engineering	
product function / MIB support	Yes
protocol / is supported	
● SNMP v1	Yes
● DCP	Yes
● LLDP	Yes
configuration software / required	Included in scope of supply
identification & maintenance function	
● I&M0 - device-specific information	Yes
● I&M1 - higher level designation/location designation	Yes
● I&M2 - installation date	Yes
● I&M3 - comment	Yes
● I&M4 - signature	Yes
● I&M4 - OEM data	Yes
product functions / diagnostics	
product function	
● web-based diagnostics	Yes
● port diagnostics	Yes
product functions / switch	
product feature / switch	Yes
product function / switch-managed	No
product function / with IRT / PROFINET IO switch	Yes
product functions / redundancy	
software / for redundancy function / required	No
product function	
● ring redundancy	Yes
● redundancy manager	Yes
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
standards, specifications, approvals	
standard	
● for EMC	2004/108/EC
● for safety / from CSA and UL	CAN/CSA C22.2 & UL 60950-1

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● for emitted interference	EN 61000-6-3, EN 61000-6-4
● for interference immunity	EN 61000-6-1, EN 61000-6-2
certificate of suitability	
● CE marking	Yes
● C-Tick	Yes
accessories	
accessories	optional: Connection board for CP 1604, power supply board for CP 1604, HARDNET-IE DK (development kit)
further information / internet links	
internet link	
● to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
● to website: Industrial communication	http://www.siemens.com/simatic-net
● to website: Industry Mall	http://www.siemens.com/industrial-controls/mall
● to website: Information and Download Center	http://www.siemens.com/industry/infocenter
● to website: Image database	http://automation.siemens.com/bilddb
● to website: CAx-Download-Manager	http://www.siemens.com/cax
● to website: Industry Online Support	https://support.industry.siemens.com
security information	
security information	Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit http://www.siemens.com/industrialsecurity. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit http://support.automation.siemens.com. (V3.4)

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