SIEMENS

Data sheet 6GK1160-4AA01

Product type designation CP 1604

COMMUNICATION PROCESSOR CP 1604 PC/104 PLUS CARD (32 BIT; 33/66MHZ; 3.3/5V) WITH ASIC ERTEC 400 FOR CONNECTING TO PROFINET IO WITH 4-PORT-REAL-TIME-SWITCH VIA DEVELOPMENT KIT DK-16XX PN IO; NCM PC



Transmission rate	
Transfer rate	
at the 1st interface	10 100 Mbit/s
Interfaces	
Number of electrical connections	
• at the 1st interface / acc. to Industrial Ethernet	4
• for power supply	1
Type of electrical connection	
• at the 1st interface / acc. 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 supply	Yes
Supply voltage	
• 1 / from backplane bus	5 V
• external	24 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 %
● at 24 V	20 %
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
Active power loss	4 W
Active power loss / in switch mode / maximum	4.1 W

Permitted 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 weight	
Module format	PC/104-Plus
Width	90 mm
Height	24 mm
Depth	95 mm
Net weight	110 g
Mounting type	Screw mounting
Number of plug-in cards of same design / plug-in /	1
per PC station	
Number of units / Note	•

Performance data

Performance data / PROFINET communication / as PN IO-Controller	
Software / for PROFINET IO communication /	No
required	
Number of PN IO devices / on PROFINET IO	128
controller / usable / total	
Number of PN IO IRT devices / on PROFINET IO	64
controller / usable	
Amount of data	
as user data for input variables / as PROFINET	8192 byte
IO controller / maximum	
• as user data for input variables / as PROFINET	8192 byte
IO controller / maximum	

as user data for input variables per PN IO device / as PROFINET IO controller / maximum
 as user data for output variables per PN IO device / as PROFINET IO controller / maximum

Performance data / PROFINET communication / as	PN IO-Device
Amount of data	
 as user data for input variables / as PROFINET IO device / maximum 	1433 byte
 as user data for input variables / as PROFINET IO device / maximum 	1433 byte
 as user data for input variables / for each sub- module as PROFINET IO device 	254 byte
 as user data for input 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	
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 	Yes
designation	
• I&M2 - installation date	Yes
• I&M3 - comment	Yes
• I&M4 - signature	Yes
Product functions / Diagnosis	
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
• 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

Yes

Accessories

• C-Tick

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 website: Selector SIMATIC NET SELECTION TOOL

• to website: Industrial communication

• to website: Industry Mall

• to website: Image database

• to website: CAx Download Manager

• to website: Industry Online Support

http://www.siemens.com/snst

http://www.siemens.com/simatic-net

http://www.siemens.com/industrial-controls/mall

 $\underline{\text{http://automation.siemens.com/bilddb}}$

http://www.siemens.com/cax

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. Thirdparty 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)

last modified: 24.09.2015