

Product type designation

CP 1604

Communications processor CP 1604 PC/104 plus card (32 bit; 33/66M Hz; 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



Transmission rate

Transfer rate	100 Mbit/s
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Interfaces

Number of electrical connections	
<ul style="list-style-type: none"> at the 1st interface / acc. to Industrial Ethernet for power supply 	<p>4</p> <p>1</p>
Type of electrical connection	
<ul style="list-style-type: none"> at the 1st interface / acc. to Industrial Ethernet for power supply 	<p>RJ45 port via connection board</p> <p>4-pole terminal block through power supply board</p>

Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage	DC
Type of voltage supply / optional external supply	Yes
Supply voltage	
<ul style="list-style-type: none"> 1 / from backplane bus external Note 	<p>5 V</p> <p>5 V</p> <p>optional external power supply and external supply voltage alternatively via power supply board (optional accessory)</p>

Relative symmetrical tolerance / at DC	
<ul style="list-style-type: none"> • at 5 V 	5 %
Consumed current	
<ul style="list-style-type: none"> • 1 / from backplane bus / at DC / maximum 	0.8 A
<ul style="list-style-type: none"> • 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

Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation 	5 ... 60 °C
<ul style="list-style-type: none"> • during storage 	-20 ... +60 °C
<ul style="list-style-type: none"> • 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 / per PC station	1
Number of units / Note	FMS-5613 supports up to two CP 5603 / CP 5613 A2 / CP 5614 A2 / CP 5623 / CP 5624 processors

Performance data

Performance data / PROFINET communication / as PN IO-Controller

Software / for PROFINET IO communication / required	No
Number of PN IO devices / on PROFINET IO controller / usable / total	128
Number of PN IO IRT devices / on PROFINET IO controller / usable	64
Amount of data	
<ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO controller / maximum 	8192 byte
<ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO controller / maximum 	8192 byte
<ul style="list-style-type: none"> • as user data for input variables per PN IO device / as PROFINET IO controller / maximum 	1430 byte

<ul style="list-style-type: none"> • as user data for output variables per PN IO device / as PROFINET IO controller / maximum 	1430 byte
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Performance data / PROFINET communication / as PN IO-Device

Amount of data	
<ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO device / maximum 	1430 byte
<ul style="list-style-type: none"> • as user data for input variables / as PROFINET IO device / maximum 	1430 byte
<ul style="list-style-type: none"> • as user data for input variables / for each sub-module as PROFINET IO device 	254 byte
<ul style="list-style-type: none"> • as user data for input variables / for each sub-module as PROFINET IO device 	254 byte
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • SNMP v1 	Yes
<ul style="list-style-type: none"> • DCP 	Yes
<ul style="list-style-type: none"> • LLDP 	Yes
Configuration software / required	Included in scope of supply
Identification & maintenance function	
<ul style="list-style-type: none"> • I&M0 - device-specific information 	Yes
<ul style="list-style-type: none"> • I&M1 – higher-level designation/location designation 	Yes
<ul style="list-style-type: none"> • I&M2 - installation date 	Yes
<ul style="list-style-type: none"> • I&M3 - comment 	Yes
<ul style="list-style-type: none"> • I&M4 - signature 	Yes
<ul style="list-style-type: none"> • I&M4 - OEM data 	Yes

Product functions / Diagnosis

Product function	
<ul style="list-style-type: none"> • Web-based diagnostics 	Yes
<ul style="list-style-type: none"> • 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	

<ul style="list-style-type: none"> • Ring redundancy 	Yes
<ul style="list-style-type: none"> • Redundancy manager 	Yes
Protocol / is supported / Media Redundancy Protocol (MRP)	Yes

Standards, specifications, approvals

Standard	
<ul style="list-style-type: none"> • for EMC 	2004/108/EC
<ul style="list-style-type: none"> • for safety / from CSA and UL 	CAN/CSA C22.2 & UL 60950-1
<ul style="list-style-type: none"> • for emitted interference 	EN 61000-6-3, EN 61000-6-4
<ul style="list-style-type: none"> • for interference immunity 	EN 61000-6-1, EN 61000-6-2
Certificate of suitability	
<ul style="list-style-type: none"> • CE marking 	Yes
<ul style="list-style-type: none"> • C-Tick 	Yes

Accessories

accessories	optional: Connection board for CP 1604, power supply board for CP 1604, HARDNET-IE DK (development kit)
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Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> • to website: Selector SIMATIC NET SELECTION TOOL 	http://www.siemens.com/snst
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	http://www.siemens.com/industrial-controls/mall
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx Download Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • 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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