

### 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
• of the backplane bus	PCI-104 (32Bit)
• 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

<b>product features, product functions, product components / general</b>	
number of plug-in cards of same design / plug-in / per PC station	1
number of units / note	-
<b>performance data / PROFINET communication / as PN IO controller</b>	
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
<b>performance data / PROFINET communication / as PN IO device</b>	
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
<b>product functions / management, configuration, engineering</b>	
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
<b>product functions / diagnostics</b>	
product function	
• web-based diagnostics	Yes
• port diagnostics	Yes
<b>product functions / switch</b>	
product feature / switch	Yes
product function / switch-managed	No
product function / with IRT / PROFINET IO switch	Yes
<b>product functions / redundancy</b>	
software / for redundancy function / required	No
product function	
• ring redundancy	Yes
• redundancy manager	Yes
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
<b>standards, specifications, approvals</b>	
reference code	
• according to IEC 81346-2:2019	KEC
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022

## standards, specifications, approvals / Environmental Product Declaration

Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	146.03 kg
• during manufacturing	33.23 kg
• during operation	112.74 kg
• after end of life	0.06 kg

## 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	
• to website: Selection guide for cables and connectors	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to website: Industrial communication	<a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>
• to web page: SiePortal	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
• to website: Image database	<a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>
• to website: CAX-Download-Manager	<a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

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## Approvals / Certificates

General Product Approval	Environment
 EG-Konf.	 CCC
 EAC	 RCM
	<a href="#">Confirmation</a>
	 EPD

## Industrial Communication

[PROFINET](#)

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