

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.



Technical Product Detail Page

<https://l.siemens.com/1P6GK1160-4AA01>

### transfer rate

transfer rate 100

### 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>	
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
<b>standards, specifications, approvals / Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
<ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul>	<ul style="list-style-type: none"> <li>146.03 kg</li> <li>33.23 kg</li> <li>112.74 kg</li> <li>0.06 kg</li> </ul>
<b>accessories</b>	
accessories	optional: Connection board for CP 1604, power supply board for CP 1604, HARDNET-IE DK (development kit)
<b>further information / internet links</b>	
internet link	
<ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<ul style="list-style-type: none"> <li><a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a></li> <li><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a></li> <li><a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a></li> <li><a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a></li> <li><a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a></li> <li><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a></li> <li><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></li> </ul>
<b>security information</b>	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7)

**Approvals / Certificates**

General Product Approval	Environment
 EG-Konf.	 CCC
	 China RoHS
	 RCM
	 EPD

**Industrial Communication**

[PROFINET](#)

last modified: 10/29/2025 