

product type designation



CP 1542-5

communications processor CP 1542-5 for connection of SIMATIC S7-1500 to PROFIBUS DP, DPV1 master or DP device, S7 and PG/OP communication, time synchronization, diagnostics, reduced quantity structure.

product brand name

SIMATIC NET

Technical Product Detail Page

<https://l.siemens.com/1P6GK7542-5FX10-0XE0>

transfer rate

transfer rate

- at the 1st interface / according to PROFIBUS 9.6 kbit/s ... 12 Mbit/s

interfaces

number of interfaces / according to Industrial Ethernet

0

number of electrical connections

- at the 1st interface / according to PROFIBUS 1

type of electrical connection

- at the 1st interface / according to PROFIBUS 9-pin Sub-D socket (RS485)

supply voltage, current consumption, power loss

type of voltage / of the supply voltage

DC

supply voltage / 1 / from backplane bus

15 V

relative symmetrical tolerance / at DC

- at 15 V 3 %

consumed current

- from backplane bus / at DC / at 15 V / typical 0.2 A

power loss [W]

3 W

ambient conditions

ambient temperature

- for vertical installation / during operation -30 ... +40 °C
- for horizontally arranged busbars / during operation -30 ... +60 °C
- during storage -40 ... +70 °C
- during transport -40 ... +70 °C
- note without condensation or icing

installation altitude / at height above sea level / maximum

5000 m

ambient condition / relating to ambient temperature - air pressure - installation altitude

restrictions for installation altitudes > 2 000 m, see manual

relative humidity

- at 25 °C / without condensation / during operation / maximum 95 %

protection class IP

IP20

design, dimensions and weights

module format

Compact module S7-1500 single width

width

35 mm

height

142 mm

depth

129 mm

net weight	0.4 kg
fastening method	
<ul style="list-style-type: none"> • S7-1500 rail mounting 	Yes
product features, product functions, product components / general	
number of units	
<ul style="list-style-type: none"> • per CPU / maximum • note 	8 depending on CPU type
performance data / PROFIBUS DP	
service / as DP master	
<ul style="list-style-type: none"> • DPV1 	Yes
number of DP devices	
<ul style="list-style-type: none"> • on DP master / operable 	32
data volume	
<ul style="list-style-type: none"> • of the address range of the inputs / as DP master / total • of the address range of the outputs / as DP master / total • of the address range of the inputs / per DP device • of the address range of the outputs / per DP device 	2048 byte 2048 byte 244 byte 244 byte
service / as DP device	
<ul style="list-style-type: none"> • DPV0 • DPV1 	Yes Yes
data volume	
<ul style="list-style-type: none"> • of the address range of the inputs / as DP device / total • of the address range of the outputs / as DP device / total 	240 byte 240 byte
performance data / S7 communication	
number of possible connections / for S7 communication	
<ul style="list-style-type: none"> • maximum 	16; depending on the system upper limit
performance data / multi-protocol mode	
number of active connections / with multi-protocol mode	16
performance data / telecontrol	
protocol / is supported	
<ul style="list-style-type: none"> • TCP/IP 	No
product functions / management, configuration, engineering	
configuration software	
<ul style="list-style-type: none"> • required 	STEP 7 Professional V18 (TIA Portal) or higher
identification & maintenance function	
<ul style="list-style-type: none"> • I&M0 - device-specific information • I&M1 - higher level designation/location designation 	Yes Yes
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
product functions / diagnostics	
product function / web-based diagnostics	Yes; via S7-1500 CPU
product functions / time	
product function / pass on time synchronization	Yes
standards, specifications, approvals	
certificate of suitability / CE marking	Yes
certificate of suitability / UKCA marking	Yes
certificate of suitability / cULus approval	Yes
certificate of suitability / KC approval	Yes
certificate of suitability / Regulatory Compliance Mark (RCM)	Yes
certificate of suitability / RoHS conformity	Yes
certificate of suitability / EAC approval	Yes
standards, specifications, approvals / hazardous environments / header	
certificate of suitability / ATEX	Yes
certificate of suitability / IECEx	Yes
certificate of suitability / ULhazloc approval	Yes
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
certificate of suitability / FM registration	Yes
standards, specifications, approvals / Environmental Product Declaration	
Environmental Product Declaration	Yes

global warming potential [CO2 eq]	
• total	115.52 kg
• during manufacturing	21.24 kg
• during operation	93.93 kg
• after end of life	0.35 kg

further information / internet links

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

security information

security information	<p>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 www.siemens.com/cybersecurity-industry. 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 https://www.siemens.com/cert. (V4.7)</p>
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Approvals / Certificates

General Product Approval



[China RoHS](#)

EMV	For use in hazardous locations	Environment
	FM	
	CCC-Ex	

last modified:

7/17/2026