

Product type designation

CP 1543-1

Communications processor CP 1543-1 for connection of SIMATIC S7-1500 to Industrial Ethernet; TCP/IP, ISO, UDP, S7 communication, IP Broadcast/ Multicast, security (VPN, Firewall) Diagnostics SNMPV1/V3, DHCP, FTP client/server, Email, IPv4/IPv6, Time synchronization via NTP, 1x RJ45 (10/100/1000 MB)



Transmission rate

Transfer rate

- at the 1st interface

10 ... 1000 Mbit/s

Interfaces

Number of interfaces / acc. to Industrial Ethernet

1

Number of electrical connections

- at the 1st interface / acc. to Industrial Ethernet

1

Type of electrical connection

- at the 1st interface / acc. to Industrial Ethernet

RJ45 port

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

0.35 A

Power loss [W]

5.3 W

Ambient conditions	
Ambient temperature	
<ul style="list-style-type: none"> • for vertical installation / during operation 	0 ... 40 °C
<ul style="list-style-type: none"> • for horizontally arranged busbars / during operation 	0 ... 60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +70 °C
Relative humidity	
<ul style="list-style-type: none"> • at 25 °C / without condensation / during operation / maximum 	95 %
Protection class IP	IP20

Design, dimensions and weight	
Module format	Compact module S7-1500 single width
Width	35 mm
Height	142 mm
Depth	129 mm
Net weight	0.35 kg
Mounting type	
<ul style="list-style-type: none"> • S7-1500 rail mounting 	Yes

Product properties, functions, components / general	
Number of units	
<ul style="list-style-type: none"> • per CPU / maximum 	8
<ul style="list-style-type: none"> • Note 	depending on CPU type

Performance data / open communication	
Number of possible connections / for open communication	
<ul style="list-style-type: none"> • by means of T blocks / maximum 	118; depending on the system upper limit
Amount of data	
<ul style="list-style-type: none"> • as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum 	65536 byte
Number of Multicast stations	118

Performance data / S7 communication	
Number of possible connections / for S7 communication	
<ul style="list-style-type: none"> • maximum 	118
<ul style="list-style-type: none"> • Note 	depending on the system upper limit

Performance data / multi-protocol mode	
Number of active connections / with multi-protocol mode	118

Performance data / IT functions

Number of possible connections	
<ul style="list-style-type: none"> • as client / by means of FTP / maximum 	32
<ul style="list-style-type: none"> • as server / by means of FTP / maximum 	16
Number of possible connections	
<ul style="list-style-type: none"> • as server / by means of HTTP / maximum 	4
<ul style="list-style-type: none"> • as e-mail client / maximum 	1
Amount of data / as user data for email / maximum	64 Kibyte

Performance data / telecontrol

Protocol / is supported	
<ul style="list-style-type: none"> • TCP/IP 	Yes

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 	No
Configuration software	
<ul style="list-style-type: none"> • required 	STEP 7 Professional V14 (TIA Portal) or higher
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

Product functions / Diagnosis

Product function / Web-based diagnostics	Yes; yes, via S7-1500 CPU
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Product functions / Routing

Service / Routing / Note	IP routing up to 1 Mbps
Product function	
<ul style="list-style-type: none"> • Static IP routing 	Yes
<ul style="list-style-type: none"> • Static IP routing IPv6 	No
<ul style="list-style-type: none"> • dynamic IP routing 	No
<ul style="list-style-type: none"> • dynamic IP routing IPv6 	No
Protocol / is supported	
<ul style="list-style-type: none"> • RIP v1 	No
<ul style="list-style-type: none"> • RIPv2 	No
<ul style="list-style-type: none"> • RIPnG for IPv6 	No
<ul style="list-style-type: none"> • OSPFv2 	No
<ul style="list-style-type: none"> • OSPFv3 for IPv6 	No
<ul style="list-style-type: none"> • VRRP 	No
<ul style="list-style-type: none"> • VRRP for IPv6 	No
<ul style="list-style-type: none"> • BGP 	No

- PPP
- PPoE via DSL

No

No

Product functions / Security

Firewall version	stateful inspection
Product function / with VPN connection	IPSec
Type of encryption algorithms / with VPN connection	AES-256, AES-192, AES-128, 3DES-168, DES-56
Type of authentication procedure / with VPN connection	Preshared key (PSK), X.509v3 certificates
Type of hashing algorithms / with VPN connection	MD5, SHA-1
Number of possible connections / with VPN connection	16
Product function	
<ul style="list-style-type: none"> • password protection for Web applications 	No
<ul style="list-style-type: none"> • ACL - IP-based 	No
<ul style="list-style-type: none"> • ACL - IP-based for PLC/routing 	No
<ul style="list-style-type: none"> • switch-off of non-required services 	Yes
<ul style="list-style-type: none"> • Blocking of communication via physical ports 	No
<ul style="list-style-type: none"> • log file for unauthorized access 	Yes

Product functions / Time

Product function / SICLOCK support	Yes
Product function / pass on time synchronization	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • NTP 	Yes

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 	https://mall.industry.siemens.com
<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)

last modified:

08/26/2019