

product type designation



CP 1545-1

communications processor CP 1545-1 for connection of SIMATIC S7-1500 to Industrial Ethernet; TCP/IP, UDP, S7 communication, security (VPN, firewall), SNMPv1/v3, DHCP, FTP client/server, email, IPv4/IPv6, IEEE 802.1X (radius), time synchronization via NTP, connection to cloud systems via MQTT, 1x RJ45 (10/100/1000 Mbps).

transfer rate	
transfer rate	
<ul style="list-style-type: none"> at the 1st interface 	10 ... 1000 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
<ul style="list-style-type: none"> at the 1st interface / according to Industrial Ethernet 	1
type of electrical connection	
<ul style="list-style-type: none"> at the 1st interface / according 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	
<ul style="list-style-type: none"> at 15 V 	3 %
consumed current	
<ul style="list-style-type: none"> from backplane bus / at DC / at 15 V / typical 	0.25 A
power loss [W]	3.75 W
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> for vertical installation / during operation for horizontally arranged busbars / during operation during storage during transport note 	-30 ... +40 °C -30 ... +60 °C -40 ... +70 °C -40 ... +70 °C 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	
<ul style="list-style-type: none"> 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	0.26 kg
fastening method	
<ul style="list-style-type: none"> S7-1500 rail mounting 	Yes

product features, product functions, product components / general

number of units	
• per CPU / maximum	8
• note	depending on CPU type

product functions / cloud connectivity

protocol / is supported	
• Message Queuing Telemetry Transport (MQTT)	Yes
• Advanced Message Queuing Protocol (AMQP)	No
product function / for cloud connectivity	
• trigger management	Yes
• time stamping	Yes
product feature / for cloud connectivity / buffered message frame memory	No
number of data points per device / maximum	500

performance data / open communication

number of possible connections / for open communication	
• by means of T blocks / maximum	118; depending on the system upper limit
data volume	
• 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	
• maximum	118; depending on the system upper limit

performance data / multi-protocol mode

number of active connections / with multi-protocol mode	118
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performance data / IT functions

number of possible connections	
• as client / by means of FTP / maximum	32
• as server / by means of FTP / maximum	16
number of possible connections	
• as server / by means of HTTP / maximum	4
• as email client / maximum	1
data volume / as user data for email / maximum	64 Kibyte

performance data / telecontrol

protocol / is supported	
• TCP/IP	Yes

product functions / management, configuration, engineering

product function / MIB support	Yes
protocol / is supported	
• SNMP v1	Yes
• SNMP v3	Yes
• DCP	Yes
• LLDP	Yes
configuration software	
• required	STEP 7 Professional V19 (TIA Portal) or higher
identification & maintenance function	
• I&M0 - device-specific information	Yes
• I&M1 - higher level designation/location designation	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
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product functions / routing

service / routing / note	IP routing up to 1 Mbps
product function	
• static IP routing	Yes
• static IP routing IPv6	No
• dynamic IP routing	No
• dynamic IP routing IPv6	No
protocol / is supported	
• RIP v1	No

- RIPv2
- RIPv6
- OSPFv2
- OSPFv3 for IPv6
- VRRP
- VRRP for IPv6
- BGP
- PPP
- PoE via DSL

No
No
No
No
No
No
No
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, SHA-256, SHA-384, SHA-512
number of possible connections / with VPN connection	16
product function	
• IEEE 802.1x (radius)	Yes
• password protection for Web applications	No
• ACL - IP-based	No
• ACL - IP-based for PLC/routing	No
• switch-off of non-required services	Yes
• blocking of communication via physical ports	No
• log file for unauthorized access	Yes

product functions / time

product function / SICLOCK support	No
product function / pass on time synchronization	Yes
protocol / is supported	
• NTP	Yes

standards, specifications, approvals

reference code	
• according to IEC 81346-2:2019	KEC
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	140.88 kg
• during manufacturing	21.24 kg
• during operation	119.29 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

security information

security information

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Approvals / Certificates

General Product Approval

For use in hazardous locations



EG-Konf.



[China RoHS](#)



IECEX

[CCC-Ex](#)

[Miscellaneous](#)

For use in hazardous locations

Environment



ATEX



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