

### 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 (firewall), SNMPv1/v3, DHCP, FTP client/server, email, IPv4/IPv6, time-of-day synchronization via NTP, connection to cloud systems via MQTT, 1x RJ45 (10/100/1000 Mbit/s).

transfer rate	
transfer rate	
<ul style="list-style-type: none"> <li>at the 1st interface</li> </ul>	10 ... 1000 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
<ul style="list-style-type: none"> <li>at the 1st interface / according to Industrial Ethernet</li> </ul>	1
type of electrical connection	
<ul style="list-style-type: none"> <li>at the 1st interface / according to Industrial Ethernet</li> </ul>	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"> <li>at 15 V</li> </ul>	3 %
consumed current	
<ul style="list-style-type: none"> <li>from backplane bus / at DC / at 15 V / typical</li> </ul>	0.3 A
power loss [W]	4.5 W
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> <li>for vertical installation / during operation</li> <li>for horizontally arranged busbars / during operation</li> <li>during storage</li> <li>during transport</li> </ul>	0 ... 40 °C 0 ... 60 °C -40 ... +70 °C -40 ... +70 °C
relative humidity	
<ul style="list-style-type: none"> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	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	0.32 kg
fastening method	
<ul style="list-style-type: none"> <li>S7-1500 rail mounting</li> </ul>	Yes
product features, product functions, product components / general	
number of units	
<ul style="list-style-type: none"> <li>per CPU / maximum</li> <li>note</li> </ul>	8 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
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 V15.1 (TIA Portal) or higher
identification & maintenance function	
• I&M0 - device-specific information	Yes
• I&M1 - higher level designation/location designation	Yes
product functions / diagnostics	
product function / web-based diagnostics	Yes; via S7-1500 CPU
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	No
• RIPnG for IPv6	No
• OSPFv2	No
• OSPFv3 for IPv6	No
• VRRP	No

<ul style="list-style-type: none"> <li>• VRRP for IPv6</li> <li>• BGP</li> <li>• PPP</li> <li>• PPOE via DSL</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p>
<b>product functions / security</b>	
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	
<ul style="list-style-type: none"> <li>• password protection for Web applications</li> <li>• ACL - IP-based</li> <li>• ACL - IP-based for PLC/routing</li> <li>• switch-off of non-required services</li> <li>• blocking of communication via physical ports</li> <li>• log file for unauthorized access</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>Yes</p> <p>No</p> <p>Yes</p>
<b>product functions / time</b>	
product function / SICLOCK support	No
product function / pass on time synchronization	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	Yes
<b>standards, specifications, approvals / hazardous environments</b>	
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes; GB3836.1, GB3836.8
<ul style="list-style-type: none"> <li>• as marking</li> </ul>	Ex nA IIC T4 Gc
<b>further information / internet links</b>	
internet link	
<ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<p><a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a></p> <p><a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a></p> <p><a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a></p> <p><a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a></p> <p><a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a></p> <p><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a></p> <p><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></p>
<b>security information</b>	
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