

### 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 Mbps)

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 / acc. to Industrial Ethernet	1
number of electrical connections	
<ul style="list-style-type: none"> <li>at the 1st interface / acc. to Industrial Ethernet</li> </ul>	1
type of electrical connection	
<ul style="list-style-type: none"> <li>at the 1st interface / acc. 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> </ul>	0 ... 40 °C
<ul style="list-style-type: none"> <li>for horizontally arranged busbars / during operation</li> </ul>	0 ... 60 °C
<ul style="list-style-type: none"> <li>during storage</li> </ul>	-40 ... +70 °C
<ul style="list-style-type: none"> <li>during transport</li> </ul>	-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
<b>product functions / cloud connectivity</b>	
protocol / is supported	
<ul style="list-style-type: none"> <li>Message Queuing Telemetry Transport (MQTT)</li> <li>Advanced Message Queuing Protocol (AMQP)</li> </ul>	Yes No
product function / for cloud connectivity	
<ul style="list-style-type: none"> <li>trigger management</li> <li>time stamping</li> </ul>	Yes Yes
product feature / for cloud connectivity / buffered message frame memory	No
number of data points per device / maximum	500
<b>performance data / open communication</b>	
number of possible connections / for open communication	
<ul style="list-style-type: none"> <li>by means of T blocks / maximum</li> </ul>	118; depending on the system upper limit
data volume	
<ul style="list-style-type: none"> <li>as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum</li> </ul>	65536 byte
number of Multicast stations	118
<b>performance data / S7 communication</b>	
number of possible connections / for S7 communication	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	118; depending on the system upper limit
<b>performance data / multi-protocol mode</b>	
number of active connections / with multi-protocol mode	118
<b>performance data / IT functions</b>	
number of possible connections	
<ul style="list-style-type: none"> <li>as client / by means of FTP / maximum</li> <li>as server / by means of FTP / maximum</li> </ul>	32 16
number of possible connections	
<ul style="list-style-type: none"> <li>as server / by means of HTTP / maximum</li> <li>as email client / maximum</li> </ul>	4 1
data volume / as user data for email / maximum	64 Kibyte
<b>performance data / telecontrol</b>	
protocol / is supported	
<ul style="list-style-type: none"> <li>TCP/IP</li> </ul>	Yes
<b>product functions / management, configuration, engineering</b>	
product function / MIB support	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>SNMP v1</li> <li>SNMP v3</li> <li>DCP</li> <li>LLDP</li> </ul>	Yes Yes Yes Yes
configuration software	
<ul style="list-style-type: none"> <li>required</li> </ul>	STEP 7 Professional V15.1 (TIA Portal) or higher
identification & maintenance function	
<ul style="list-style-type: none"> <li>I&amp;M0 - device-specific information</li> <li>I&amp;M1 – higher level designation/location designation</li> </ul>	Yes Yes
<b>product functions / diagnostics</b>	
product function / web-based diagnostics	Yes; via S7-1500 CPU
<b>product functions / routing</b>	
service / routing / note	IP routing up to 1 Mbps
product function	
<ul style="list-style-type: none"> <li>static IP routing</li> <li>static IP routing IPv6</li> <li>dynamic IP routing</li> <li>dynamic IP routing IPv6</li> </ul>	Yes No No No
protocol / is supported	

<ul style="list-style-type: none"> <li>• RIP v1</li> <li>• RIPv2</li> <li>• RIPnG for IPv6</li> <li>• OSPFv2</li> <li>• OSPFv3 for IPv6</li> <li>• VRRP</li> <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> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
<b>product functions / security</b>	
firewall version	stateful inspection
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
<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>	
security information	<p>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 <a href="http://www.siemens.com/industrialsecurity">http://www.siemens.com/industrialsecurity</a>. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <a href="http://support.automation.siemens.com">http://support.automation.siemens.com</a>. (V3.4)</p>

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