# **SIEMENS**

## **Data sheet**

# 6GK7543-1AX00-0XE0

#### 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, IEEE 802.1X (radius), time-of-day synchronization via NTP, 1x RJ45 (10/100/1000 Mbit).

transfer rate	
transfer rate	
at the 1st interface	10 1000 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
<ul> <li>at the 1st interface / according to Industrial Ethernet</li> </ul>	1
type of electrical connection	
<ul> <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	
• 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> <li>for vertical installation / during operation</li> </ul>	0 40 °C
<ul> <li>for horizontally arranged busbars / during operation</li> </ul>	0 60 °C
during storage	-40 +70 °C
during transport	-40 +70 °C
relative humidity	
<ul> <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	0.35 kg
fastening method	
S7-1500 rail mounting	Yes
product features, product functions, product components / ge	neral
number of units	
• per CPU / maximum	8
• note	depending on CPU type

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	The graph and the special appearance
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	110
number of possible connections / for S7 communication	440) depending on the system upper limit
• 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	
<ul><li>as client / by means of FTP / maximum</li></ul>	32
as server / by means of FTP / maximum	16
number of possible connections	
<ul><li>as server / by means of HTTP / maximum</li></ul>	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	165
• required	STED 7 Professional V/14 /TIA Portal) or higher
identification & maintenance function	STEP 7 Professional V14 (TIA Portal) or higher
	Voc
I&M0 - device-specific information  I&M4 - bistor level designation (level)  I&M4 - bistor level designation (level)	Yes
I&M1 - higher level designation/location designation  and the function / is a supported / identification link	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 / routing	
service / routing / note	IP routing up to 1 Mbps
	• • • • • • • • • • • • • • • • • • • •
product function	
product function • static IP routing	Yes
·	Yes No
static IP routing	
<ul><li>static IP routing</li><li>static IP routing IPv6</li></ul>	No
<ul> <li>static IP routing</li> <li>static IP routing IPv6</li> <li>dynamic IP routing</li> </ul>	No No
<ul> <li>static IP routing</li> <li>static IP routing IPv6</li> <li>dynamic IP routing</li> <li>dynamic IP routing IPv6</li> </ul>	No No
static IP routing     static IP routing IPv6     dynamic IP routing     dynamic IP routing IPv6  protocol / is supported	No No No
static IP routing     static IP routing IPv6     dynamic IP routing     dynamic IP routing IPv6  protocol / is supported     RIP v1	No No No
static IP routing     static IP routing IPv6     dynamic IP routing     dynamic IP routing IPv6  protocol / is supported     RIP v1     RIPv2	No No No No
static IP routing     static IP routing IPv6     dynamic IP routing     dynamic IP routing IPv6  protocol / is supported     RIP v1     RIPv2     RIPnG for IPv6	No No No No No
<ul> <li>static IP routing</li> <li>static IP routing IPv6</li> <li>dynamic IP routing</li> <li>dynamic IP routing IPv6</li> </ul> protocol / is supported <ul> <li>RIP v1</li> <li>RIPv2</li> <li>RIPnG for IPv6</li> <li>OSPFv2</li> <li>OSPFv3 for IPv6</li> </ul>	No
<ul> <li>static IP routing</li> <li>static IP routing IPv6</li> <li>dynamic IP routing</li> <li>dynamic IP routing IPv6</li> <li>protocol / is supported</li> <li>RIP v1</li> <li>RIPv2</li> <li>RIPnG for IPv6</li> <li>OSPFv2</li> <li>OSPFv3 for IPv6</li> <li>VRRP</li> </ul>	No
static IP routing static IP routing IPv6 dynamic IP routing dynamic IP routing IPv6 protocol / is supported RIP v1 RIPv2 RIPnG for IPv6 OSPFv2 OSPFv3 for IPv6 VRRP VRRP for IPv6	No N
<ul> <li>static IP routing</li> <li>static IP routing IPv6</li> <li>dynamic IP routing</li> <li>dynamic IP routing IPv6</li> <li>protocol / is supported</li> <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> </ul>	No N
<ul> <li>static IP routing</li> <li>static IP routing IPv6</li> <li>dynamic IP routing IPv6</li> <li>protocol / is supported</li> <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> </ul>	No N
<ul> <li>static IP routing</li> <li>static IP routing IPv6</li> <li>dynamic IP routing</li> <li>dynamic IP routing IPv6</li> <li>protocol / is supported</li> <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>	No N
static IP routing static IP routing IPv6 dynamic IP routing dynamic IP routing IPv6 protocol / is supported RIP v1 RIPv2 RIPnG for IPv6 OSPFv2 OSPFv3 for IPv6 VRRP VRRP for IPv6 BGP PPP PPoE via DSL product functions / security	No N
static IP routing     static IP routing IPv6     dynamic IP routing     dynamic IP routing IPv6  protocol / is supported     RIP v1     RIPv2     RIPnG for IPv6     OSPFv2     OSPFv3 for IPv6     VRRP     VRRP for IPv6     BGP     PPP     PPoE via DSL  product functions / security  firewall version	No N
static IP routing static IP routing IPv6 dynamic IP routing dynamic IP routing IPv6 protocol / is supported RIP v1 RIPv2 RIPnG for IPv6 OSPFv2 OSPFv3 for IPv6 VRRP VRRP for IPv6 BGP PPP PPoE via DSL product functions / security	No N

to a few the ation and a time (with VDN)	December of Level (DOM) V F00: 0 4:5
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
<ul> <li>password protection for Web applications</li> </ul>	No
ACL - IP-based	No
<ul> <li>ACL - IP-based for PLC/routing</li> </ul>	No
<ul> <li>switch-off of non-required services</li> </ul>	Yes
<ul> <li>blocking of communication via physical ports</li> </ul>	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	
<ul> <li>according to IEC 81346-2:2019</li> </ul>	KEC
standards, specifications, approvals / Environmental Product	Declaration
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	187.85 kg
<ul> <li>during manufacturing</li> </ul>	21.24 kg
<ul> <li>during operation</li> </ul>	166.26 kg
after end of life	0.35 kg
further information / internet links	
internet link	
<ul><li>to website: Selection guide for cables and connectors</li></ul>	https://support.industry.siemens.com/cs/ww/en/view/109766358
<ul> <li>to web page: selection aid TIA Selection Tool</li> </ul>	https://www.siemens.com/tstcloud
<ul><li>to website: Industrial communication</li></ul>	https://www.siemens.com/simatic-net
<ul><li>to web page: SiePortal</li></ul>	https://sieportal.siemens.com/
to website: Image database	https://www.automation.siemens.com/bilddb
<ul> <li>to website: CAx-Download-Manager</li> </ul>	https://siemens.com/cax
<ul> <li>to website: Industry Online Support</li> </ul>	https://support.industry.siemens.com
security information	
security information	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

Approvals / Certificates

**General Product Approval** 



Declaration of Conformity





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**General Product Approval** 

For use in hazardous locations

Miscellaneous







CCC-Ex

<u>FM</u>

Environment

Confirmation



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