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, Time synchronization via NTP, 1x RJ45 (10/100/1000 MB)



Transfer 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 temperature • for vertical installation / during operation • for horizontally arranged busbars / during operation • during storage • during storage • during transport • at 25 °C / without condensation / during • at 25 °C / without condensation / during • at 25 °C / without condensation / during • at 25 °C / without condensation / during • at 25 °C / without condensation / during • protection class IP Protection class IP IP20	Ambient conditions	
• for horizontally arranged busbars / during operation • during storage • during transport • duri	Ambient temperature	
operation • during storage • during transport Relative humidity • at 25 °C / without condensation / during operation / maximum Protection class IP Design, dimensions and weights Module format Vidth 35 mm Height 142 mm Depth 129 mm Net weight 0.35 kg Mounting type • \$7-1500 rail mounting Yes Product features, product functions, product components / general Number of units • per CPU / maximum • Note Performance data / open communication Number of possible connections / for open communication / by means of T blocks / maximum Number of Multicast stations 118 Performance data / S7 communication Number of possible connections / for \$7 communication Number of active connections / for \$7 communication Number of active connections / with multi-protocol mode Performance data / IT functions	 for vertical installation / during operation 	0 40 °C
• during transport • during transpor		0 60 °C
Relative humidity • at 25 °C / without condensation / during operation / maximum Protection class IP Design, dimensions and weights Module format Compact module S7-1500 single width Width 35 mm Height 142 mm Depth 129 mm Net weight Mounting type • S7-1500 rail mounting Yes Product features, product functions, product components / general Number of units • per CPU / maximum • Note Performance data / open communication Number of possible connections / for open communication • by means of T blocks / maximum Number of Multicast stations 118: depending on the system upper limit Performance data / S7 communication Number of possible connections / for S7 communication Number of possible connections / for S7 communication • maximum 118: depending on the system upper limit Performance data / S7 communication Number of possible connections / for S7 communication • maximum 118: depending on the system upper limit Performance data / S7 communication Number of possible connections / for S7 communication • maximum 118: depending on the system upper limit Performance data / T7 communication Number of active connections / with multi-protocol mode Number of active connections / with multi-protocol mode Number of active connections / with multi-protocol mode Performance data / IT functions	during storage	-40 +70 °C
• at 25 °C / without condensation / during operation / maximum Protection class IP Design, dimensions and weights Module format Width 142 mm Depth 129 mm Net weight 0.35 kg Mounting type • \$7-1500 rail mounting Yes Product features, product functions, product components / general Number of units • per CPU / maximum • Note Performance data / open communication Number of possible connections / for open communication Number of Multicast stations 118; depending on the system upper limit Performance data / \$7\$ communication Number of Multicast stations 118 Performance data / \$7\$ communication Number of possible connections / for \$7\$ communication Number of possible connections / for \$7\$ communication Number of possible connections / for \$7\$ communication Number of possible connections / with multi-protocol mode Number of active connections / with multi-protocol mode Number of active connections / with multi-protocol mode Number of active connections / with multi-protocol mode Performance data / IT functions	during transport	-40 +70 °C
operation / maximum Protection class IP 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 Mounting type S7-1500 rail mounting Yes Product features, product functions, product components / general Number of units per CPU / maximum Note Reformance data / open communication Number of possible connections / for open communication Number of possible connection / by means of T blocks / maximum Number of Multicast stations 118 Performance data / S7 communication Number of Multicast stations 118 Performance data / S7 communication Number of possible connections / for S7 communication Number of active connections / with multi-protocol mode Performance data / IT functions	Relative humidity	
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Design, dimensions and weights Module format Compact module S7-1500 single width Width 35 mm Height 142 mm Depth 129 mm Net weight Mounting type S7-1500 rail mounting Yes Product features, product functions, product components / general Number of units per CPU / maximum Note Performance data / open communication Number of possible connections / for open communication Amount of data as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum Number of Multicast stations 118 Performance data / S7 communication Number of possible connections / for S7 communication Number of possible connections / for S7 communication Number of at / S7 communication Number of possible connections / for S7 communication Number of active connections / with multi-protocol mode	operation / maximum	
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Depth 129 mm Net weight 0.35 kg Mounting type • S7-1500 rail mounting Yes Product features, product functions, product components / general 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 Amount of data • as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum 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 / T communication Number of possible connections / with multi-protocol mode Number of active connections / with multi-protocol mode Performance data / IT functions	Width	35 mm
Net weight Mounting type S7-1500 rail mounting Product features, product functions, product components / general Number of units per CPU / maximum Number of possible connections / for open communication Number of possible connections / for open communication **Note** Performance data / open communication Number of possible connections / for open communication **by means of T blocks / maximum Amount of data as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum Number of Multicast stations 118 Performance data / S7 communication Number of possible connections / for S7 communication **Number of possible connections / with multi-protocol mode Number of active connections / with multi-protocol mode Number of active connections / with multi-protocol mode Number of active connections / with multi-protocol mode Performance data / IT functions	Height	142 mm
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Number of active connections / with multi-protocol mode 118 Performance data / IT functions	• maximum	118; aepending on the system upper limit
Performance data / IT functions	· · · · · · · · · · · · · · · · · · ·	
	-	118
Number of possible connections	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 e-mail client / maximum	1
Amount of data / 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
• DCP	Yes
• LLDP	No
Configuration software	
• required	STEP 7 Professional V14 (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
 VRRP for IPv6 	No
• BGP	No
• PPP	No

 PPoF via DSI 	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	
 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

oduct functions / time	
Product function / SICLOCK support	Yes
Product function / pass on time synchronization	Yes
Protocol / is supported	
• NTP	Yes

Further information / Internet-Links

Internet-Link

• to website: Selector SIMATIC NET SELECTION TOOL

• to website: Industrial communication

• to website: Industry Mall

• to website: Information and Download Center

• to website: Image database

• to website: CAx Download Manager

• to website: Industry Online Support

http://www.siemens.com/snst

http://www.siemens.com/simatic-net

https://mall.industry.siemens.com

http://www.siemens.com/industry/infocenter

http://automation.siemens.com/bilddb

http://www.siemens.com/cax

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. Thirdparty 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)

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