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Data sheet | **6GK7545-1GX00-0XE0**

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	
● at the 1st interface	10 ... 1000 Mbit/s

interfaces

number of interfaces / according to Industrial Ethernet number of electrical connections	1
● at the 1st interface / according to Industrial Ethernet	1
type of electrical connection	
● 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	
● at 15 V	3 %
consumed current	
● from backplane bus / at DC / at 15 V / typical	0.3 A
power loss [W]	4.5 W

ambient conditions

ambient temperature	
● for vertical installation / during operation	0 ... 40 °C
● for horizontally arranged busbars / during operation	0 ... 60 °C
● during storage	-40 ... +70 °C
● during transport	-40 ... +70 °C
relative humidity	
● 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	0.32 kg
fastening method	
● S7-1500 rail mounting	Yes

product features, product functions, product components / general

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

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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
● VRRP for IPv6	No

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● BGP	No
● PPP	No
● PPoE via DSL	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
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

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

standards, specifications, approvals / hazardous environments	
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes

further information / internet-Links	
Internet-Link	
● to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
● to website: Industrial communication	http://www.siemens.com/simatic-net
● to website: Industry Mall	https://mall.industry.siemens.com
● to website: Information and Download Center	http://www.siemens.com/industry/infocenter
● to website: Image database	http://automation.siemens.com/bilddb
● to website: CAx-Download-Manager	http://www.siemens.com/cax
● to website: Industry Online Support	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. Third-party 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)

last modified: 10/13/2022 ↗

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