SIEMENS

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 (VPN, 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).

product brand name	SIMATIC NET
Technical Product Detail Page	https://i.siemens.com/1P6GK7545-1GX00-0XE0
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	
● 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	

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number of units	
● per CPU / maximum	8
● note	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 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	
● static IP routing	Yes
● static IP routing IPv6	No
● dynamic IP routing	No
● dynamic IP routing IPv6	No
protocol / is supported	

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• 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
• 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
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	
• 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	
certificate of suitability / CE marking	Yes
certificate of suitability / UKCA marking	Yes
certificate of suitability / cULus approval	Yes
certificate of suitability / KC approval	Yes
certificate of suitability / Regulatory Compliance Mark (RCM)	Yes
certificate of suitability / RoHS conformity	Yes
certificate of suitability / EAC approval	Yes
standards, specifications, approvals / hazardous environments / header	
certificate of suitability / ATEX	Yes
certificate of suitability / IECEx	Yes
certificate of suitability / ULhazloc approval	Yes
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
certificate of suitability / FM registration	Yes
standards, specifications, approvals / Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	162.49 kg
• during manufacturing	21.24 kg
• during operation	140.9 kg
• after end of life	0.35 kg
further information / internet links	
internet link	
• to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
• to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
• to website: Industrial communication	https://www.siemens.com/simatic-net
• to web page: SiePortal	https://sieportal.siemens.com/
• to website: Image database	https://www.automation.siemens.com/bilddb
• to website: CAx-Download-Manager	https://siemens.com/cax

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● to website: Industry Online Support	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 no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)

Approvals / Certificates

General Product Approval

CE EG-Konf.	UKCA	EAC	China RoHS	RCM	China RoHS

General Product Approval	For use in hazardous locations			
CE EG-Konf.	UKCA	IECEx IECEx	ATEX	FM	CCC-Ex

For use in hazardous locations	Environment
UL	EPD

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