SIEMENS

Data sheet 6GK7542-6VX00-0XE0

product type designation	**CP 1542SP-1 IRC**

Communications Processor CP 1542SP-1 IRC for connection of an SIMATIC S7-ET 200SP to Industrial Ethernet, SINAUT ST7, TeleControl Server Basic, IEC 60870-5-104 or DNP3 protocol to a control center; Open IE communication (TCP/IP, ISO-on-TCP, UDP), IP broadcast/multicast, SNMPV1, DHCP, secure email, IPv4/IPv6, support of SINEMA Remote Connect with autoconfiguration; time-of-day synchronization via NTP, access to web server of CPU, BusAdapter required.

transfer rate	
transfer rate	
● at the 1st interface	10 ... 100 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
● at the 1st interface / according to Industrial Ethernet	2
type of electrical connection	
● at the 1st interface / according to Industrial Ethernet	via ET 200SP bus adapter (RJ45, FC, SCRJ), integrated switch
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage	24 V
supply voltage	19.2 ... 28.8 V
power loss [W]	6 W
ambient conditions	
ambient temperature	
● for vertical installation / during operation	-30 ... +50 °C
● for horizontally arranged busbars / during operation	-30 ... +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	
width	60 mm
height	117 mm
depth	74 mm
net weight	0.18 kg
fastening method	
● 35 mm DIN-rail mounting	Yes
product features, product functions, product components / general	
number of units	
● per CPU / maximum	2
● note	2 CPs can be pluged in per CPU, simultaneous operation with BA Send and CM DP is possible
performance data / open communication	
number of possible connections / for open communication	
● by means of T blocks / maximum	32

data volume	
● as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum	65536 byte
performance data / S7 communication	
number of possible connections / for S7 communication	
● maximum	16
● with OP connections / maximum	16
performance data / multi-protocol mode	
number of active connections / with multi-protocol mode	32
performance data / IT functions	
number of possible connections	
● as email client / maximum	1
performance data / telecontrol	
suitability for use	
● node station	No
● substation	Yes
● TIM control center	No
control center connection	IEC 60870-5, DNP3, (Modbus TCP by block solutions of the CPU) capable control stations, connection to Telecontrol Server Basic and ST7 capable control station
● by means of a permanent connection	supported
● by means of demand-oriented connection	supported
● note	Connection to SCADA system by IEC 60870-5 104, DNP3, Telecontrol Server Basic and ST7 capable control center
protocol / is supported	
● DNP3	Yes
● IEC 60870-5	Yes
● SINAUT ST7 protocol	Yes
product function / data buffering if connection is aborted	Yes; TCSB 64000 events, SINAUT ST7 32000 telegrams, DNP3 100000 events, IEC 60870-5 100000 events
number of data points per station / maximum	1500
number of stations / for direct communication / with Telecontrol Server Basic	
● in send direction / maximum	3
● in receive direction / maximum	15
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 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 ET 200SP CPU
product functions / security	
product function / with VPN connection	SINEMA RC
product function	
● blocking of communication via physical ports	Yes
product functions / time	
product function / SICLOCK support	Yes
product function / pass on time synchronization	Yes
protocol / is supported	
● NTP	Yes
● NTP (secure)	No
time synchronization	
● from NTP-server	Yes
● from control center	Yes

standards, specifications, approvals	
reference code	
● according to IEC 81346-2:2019	KEC

standards, specifications, approvals / Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
● total	207.05 kg
● during manufacturing	19.13 kg
● during operation	187.74 kg
● after end of life	0.18 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
● 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

Declaration of Conformity

For use in hazardous locations

CCC-Ex

Environment

Confirmation

last modified: 2/28/2025