

product type designation



Figure similar

CP 1542SP-1 IRC TX RAIL

SIPLUS ET 200SP CP 1542SP-1 IRC TX rail based on 6GK7542-6VX00-0XE0 with conformal coating, -40...+70 °C, OT4 with ST1/2 (+85 °C for 10 minutes), for connection of a 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

Technical Product Detail Page

<https://l.siemens.com/1P6AG2542-6VX00-4XE0>

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
- for horizontally arranged busbars / during operation
- during storage
- during transport
- note

-40 ... +50 °C
 -40 ... +70 °C
 -40 ... +70 °C
 -40 ... +70 °C
 +85 °C for 10 min (OT4, ST1/ST2 according to EN 50155)

installation altitude / at height above sea level / maximum

2000 m

ambient condition / relating to ambient temperature - air pressure - installation altitude

Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)

relative humidity

- with condensation / according to IEC 60068-2-38 / maximum

100 %; RH including condensation/frost (no commissioning when condensation is present), horizontal installation

chemical resistance / to commercially available cooling lubricants

Yes; incl. airborne diesel and oil droplets

resistance to biologically active substances

- conformity according to EN 60721-3-3
- conformity according to EN 60721-3-5

Yes; Class 3B2 mold and fungal spores (excluding fauna), Class 3B3 on request
 Yes; Class 5B2 mold and fungal spores (excluding fauna), Class 5B3 on request

resistance to chemically active substances

- conformity according to EN 60721-3-3

Yes; Class 3C4 (RH < 75 %) incl. salt spray in accordance with EN 60068-2-52 (Severity 3). The supplied plug covers must remain in place on the unused interfaces during operation.

<ul style="list-style-type: none"> conformity according to EN 60721-3-5 	Yes; Class 5C3 (RH < 75%) including salt spray acc. to EN 60068-2-52 (Severity level 3). The supplied plug covers must remain in place over the unused interfaces during operation!
resistance to mechanically active substances	
<ul style="list-style-type: none"> conformity according to EN 60721-3-3 	Yes; Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation.
<ul style="list-style-type: none"> conformity according to EN 60721-3-5 	Yes; Class 5S3 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation!
coating / for equipped printed circuit board / according to EN 61086	Yes; Class 2 for high availability
type of coating / protection against pollution according to EN 60664-3	Yes; Protection of the type 1
type of coating / for electronic devices in railway applications according to EN 50155	Yes; Protective coating of the Class PC2 according to EN 50155:2017
type of test / of the coating / according to MIL-I-46058C	Yes; Coating discoloration during service life possible
product conformity / of the coating / Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, class A
protection class IP	IP20
design, dimensions and weights	
width	60 mm
height	117 mm
depth	74 mm
net weight	0.18 kg
fastening method	
<ul style="list-style-type: none"> 35 mm DIN-rail mounting 	Yes
product features, product functions, product components / general	
number of units	
<ul style="list-style-type: none"> per CPU / maximum 	2
<ul style="list-style-type: none"> note 	2 CPs can be plugged in per CPU, simultaneous operation with BA Send and CM DP is possible
performance data / open communication	
number of possible connections / for open communication	
<ul style="list-style-type: none"> by means of T blocks / maximum 	32
data volume	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> maximum 	16
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> as email client / maximum 	1
performance data / telecontrol	
suitability for use	
<ul style="list-style-type: none"> node station 	No
<ul style="list-style-type: none"> substation 	Yes
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> by means of a permanent connection 	supported
<ul style="list-style-type: none"> by means of demand-oriented connection 	supported
<ul style="list-style-type: none"> note 	Connection to SCADA system by IEC 60870-5 104, DNP3, Telecontrol Server Basic and ST7 capable control center
protocol / is supported	
<ul style="list-style-type: none"> DNP3 	Yes
<ul style="list-style-type: none"> IEC 60870-5 	Yes
<ul style="list-style-type: none"> 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 device / maximum	1500
number of stations / for direct communication / with Telecontrol Server Basic	
<ul style="list-style-type: none"> • in send direction / maximum • in receive direction / maximum 	3 15
product functions / management, configuration, engineering	
product function / MIB support	Yes
protocol / is supported	
<ul style="list-style-type: none"> • SNMP v1 • SNMP v3 • DCP • LLDP 	Yes Yes Yes Yes
configuration software	
<ul style="list-style-type: none"> • required 	STEP 7 Professional V14 (TIA Portal) or higher
identification & maintenance function	
<ul style="list-style-type: none"> • I&M0 - device-specific information • I&M1 - higher level designation/location designation 	Yes Yes
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
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	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • NTP • NTP (secure) 	Yes No
time synchronization	
<ul style="list-style-type: none"> • from NTP-server • from control center 	Yes Yes
product functions / position detection	
certificate of suitability / railway application in accordance with EN 50121-3-2	Yes; EMC for railway vehicles
certificate of suitability / railway application in accordance with EN 50121-4	Yes; EMC for signaling and telecommunications equipment
certificate of suitability / railway application in accordance with EN 50124-1	Yes; Railway applications - Overvoltage category OV2 pollution degree PD2 rated impulse voltage UNi = 0.5 kVUNm = DC 24
certificate of suitability / railway application in accordance with EN 50125-1	Yes; Railway vehicles - See ambient conditions
certificate of suitability / railway application in accordance with EN 50125-2	Yes; Fixed-electrical installations - see ambient conditions
certificate of suitability / railway application in accordance with EN 50125-3	Yes; Signal and telecommunications equipment - see Ambient conditions vibrations and shocks: Application point outside the rails (distance 1 m to 3 m from rail)
certificate of suitability / railway application in accordance with EN 50155	Yes; Railway vehicles - temperature class OT4, ST1/ST2, horizontal mounting position
certificate of suitability / railway application in accordance with EN 61373	Yes; Railway vehicles - Vibrations and shocks Category 1 Class A/B
certificate of suitability / fire protection in accordance with EN 45545-2	Yes; Railway vehicles - for proof, see Service & Support
further information / internet links	
internet link	
<ul style="list-style-type: none"> • to website: Selection guide for cables and connectors • to web page: selection aid TIA Selection Tool • to website: Industrial communication • to web page: SiePortal • to website: Image database • to website: CAX-Download-Manager 	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://www.siemens.com/simatic-net https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb https://siemens.com/cax

security information

security information

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Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)

[China RoHS](#)



[China RoHS](#)

General Product Approval

EMV

Railway



[Confirmation](#)

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