SIEMENS

## Data sheet 6AG2542-6VX00-4XE0

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| **product type designation** | **CP 1542SP-1 IRC TX RAIL** |



Figure similar

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

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| product brand name | SIPLUS |
| Technical Product Detail Page | https://www.siemes.plc.com/?s=6AG2542-6VX00-4XE0 |
| **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 | -40 ... +50 °C |
| ● for horizontally arranged busbars / during operation | -40 ... +70 °C |
| ● during storage | -40 ... +70 °C |
| ● during transport | -40 ... +70 °C |
| ● note | +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 | Yes; Class 3B2 mold and fungal spores (excluding fauna), Class 3B3 on request |
| ● conformity according to EN 60721-3-5 | 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 |


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| | interfaces during operation. |
| ● 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 | |
| ● 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. |
| ● 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 | |
| ● 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 |


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| 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 | |
| ● 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 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 | |
| ● 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 |
| **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 | |
| ● to website: Selection guide for cables and connectors | https://www.siemes.plc.com/?s=6AG2542-6VX00-4XE0 |
| ● to web page: selection aid TIA Selection Tool | https://www.siemes.plc.com/?s=6AG2542-6VX00-4XE0 |
| ● to website: Industrial communication | https://www.siemes.plc.com/?s=6AG2542-6VX00-4XE0 |
| ● to web page: SiePortal | https://www.siemes.plc.com/?s=6AG2542-6VX00-4XE0 |
| ● to website: Image database | https://www.siemes.plc.com/?s=6AG2542-6VX00-4XE0 |


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| ● to website: CAx-Download-Manager | |
| ● to website: Industry Online Support | https://www.siemes.plc.com/?s=6AG2542-6VX00-4XE0 |

## security information

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| 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.siemes.plc.com/?s=6AG2542-6VX00-4XE0. (V4.7) |

## Approvals / Certificates

### General Product Approval

Manufacturer Declaration | China RoHS | CE EG-Konf. | UKCA | EAC | China RoHS

| General Product Approval | EMV | Railway |
|---|---|---|
| CE EG-Konf. UKCA | RCM | Confirmation |

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