

### 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.

Technical Product Detail Page

<https://l.siemens.com/1P6GK7542-6VX00-0XE0>

| transfer rate  |   |
|--|---|
| transfer rate  |   |
| <ul style="list-style-type: none"> <li>at the 1st interface</li> </ul>   | 10 ... 100 Mbit/s   |
| interfaces   |   |
| number of interfaces / according to Industrial Ethernet  | 1   |
| number of electrical connections   |   |
| <ul style="list-style-type: none"> <li>at the 1st interface / according to Industrial Ethernet</li> </ul>  | 2   |
| type of electrical connection  |   |
| <ul style="list-style-type: none"> <li>at the 1st interface / according to Industrial Ethernet</li> </ul>  | 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  |   |
| <ul style="list-style-type: none"> <li>for vertical installation / during operation</li> <li>for horizontally arranged busbars / during operation</li> <li>during storage</li> <li>during transport</li> </ul> | -30 ... +50 °C<br>-30 ... +60 °C<br>-40 ... +70 °C<br>-40 ... +70 °C                            |
| relative humidity  |   |
| <ul style="list-style-type: none"> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>   | 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   |   |
| <ul style="list-style-type: none"> <li>35 mm DIN-rail mounting</li> </ul>  | Yes   |
| product features, product functions, product components / general  |   |
| number of units  |   |
| <ul style="list-style-type: none"> <li>per CPU / maximum</li> <li>note</li> </ul>  | 2<br>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  |  |
| • 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   |
| <b>performance data / S7 communication</b>   |  |
| number of possible connections / for S7 communication  |  |
| • maximum  | 16   |
| • with OP connections / maximum  | 16   |
| <b>performance data / multi-protocol mode</b>  |  |
| number of active connections / with multi-protocol mode  | 32   |
| <b>performance data / IT functions</b>   |  |
| number of possible connections   |  |
| • as email client / maximum  | 1  |
| <b>performance data / telecontrol</b>  |  |
| 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 device / maximum   | 1500   |
| number of stations / for direct communication / with Telecontrol Server Basic                      |  |
| • in send direction / maximum  | 3  |
| • in receive direction / maximum   | 15   |
| <b>product functions / management, configuration, engineering</b>                                  |  |
| 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  |
| <b>product functions / diagnostics</b>   |  |
| product function / web-based diagnostics   | Yes; via ET 200SP CPU  |
| <b>product functions / security</b>  |  |
| product function / with VPN connection   | SINEMA RC  |
| product function   |  |
| • blocking of communication via physical ports   | Yes  |
| <b>product functions / time</b>  |  |
| 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

|   |     |
|---|-----|
| certificate of suitability / CE marking                       | Yes |
| certificate of suitability / UKCA marking                     | 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 / 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                           | 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 | <a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a> |
| • to web page: selection aid TIA Selection Tool         | <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>   |
| • to website: Industrial communication                  | <a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>   |
| • to web page: SiePortal                                | <a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>   |
| • to website: Image database                            | <a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>                                       |
| • to website: CAX-Download-Manager                      | <a href="https://siemens.com/cax">https://siemens.com/cax</a>   |
| • to website: Industry Online Support                   | <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>   |

#### 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 <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . 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 <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7) |
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#### Approvals / Certificates

##### General Product Approval



[Declaration of Conformity](#)



[China RoHS](#)

|                          |                                |
|--------------------------|--------------------------------|
| General Product Approval | For use in hazardous locations |
|--------------------------|--------------------------------|



[China RoHS](#)



For use in hazardous locations

other

Environment



[EM](#)

[CCC-Ex](#)

[Miscellaneous](#)



last modified:

3/10/2026