

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 e-Mail, IPV4/IPV6, support of SINEMA Remote Connect with autoconfiguration; time-of-day synchronization via NTP, access to web server of the CPU, bus adapter required



Transfer rate

Transfer rate

- at the 1st interface

10 ... 100 Mbit/s

Interfaces

Number of interfaces / acc. to Industrial Ethernet

1

Number of electrical connections

- at the 1st interface / acc. to Industrial Ethernet

2

Type of electrical connection

- at the 1st interface / acc. 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

<ul style="list-style-type: none"> • for horizontally arranged busbars / during operation 	-30 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +70 °C
Relative humidity	
<ul style="list-style-type: none"> • 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
Mounting type	
<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
Amount of data	
<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
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Performance data / IT functions

Number of possible connections	
<ul style="list-style-type: none"> • as e-mail client / maximum 	1

Performance data / telecontrol

Suitability for use	
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<ul style="list-style-type: none"> • Node station • substation • TIM control center 	<p>No</p> <p>Yes</p> <p>No</p>
<p>Control center connection</p> <ul style="list-style-type: none"> • by means of a permanent connection • by means of demand-oriented connection • Note 	<p>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</p> <p>supported</p> <p>supported</p> <p>Connection to SCADA system by IEC 60870-5 104, DNP3, Telecontrol Server Basic and ST7 capable control center</p>
<p>Protocol / is supported</p> <ul style="list-style-type: none"> • DNP3 • IEC 60870-5 • SINAUT ST7 protocol 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>Product function / data buffering if connection is aborted</p>	<p>Yes; TCSB 64000 events, SINAUT ST7 32000 telegrams, DNP3 100000 events, IEC 60870-5 100000 events</p>
<p>Number of data points per station / maximum</p>	<p>1500</p>
<p>Number of stations / for direct communication / with Telecontrol Server Basic</p> <ul style="list-style-type: none"> • in send direction / maximum • in receive direction / maximum 	<p>3</p> <p>15</p>

Product functions / management, configuration, engineering

<p>Product function / MIB support</p>	<p>Yes</p>
<p>Protocol / is supported</p> <ul style="list-style-type: none"> • SNMP v1 • SNMP v3 • DCP • LLDP 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>Configuration software</p> <ul style="list-style-type: none"> • required 	<p>STEP 7 Professional V14 (TIA Portal) or higher</p>
<p>Identification & maintenance function</p> <ul style="list-style-type: none"> • I&M0 - device-specific information • I&M1 – higher-level designation/location designation 	<p>Yes</p> <p>Yes</p>

Product functions / Diagnostics

<p>Product function / Web-based diagnostics</p>	<p>Yes; via ET 200SP CPU</p>
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Product functions / Security

<p>Product function / with VPN connection</p>	<p>SINEMA RC</p>
<p>Product function</p> <ul style="list-style-type: none"> • Blocking of communication via physical ports 	<p>Yes</p>

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

Further information / Internet-Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

Security information

Security information	<p>Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action(e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit http://www.siemens.com/industrialsecurity. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit http://support.automation.siemens.com. (V3.4)</p>
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