SIEMENS

Data sheet

6AG2243-1BX30-1XE0

product type designation



SIPLUS S7-1200 CP 1243-1 RAIL

SIPLUS S7-1200 CP 1243-1 rail based on 6GK7243-1BX30-0XE0 with conformal coating, -25...+70 °C, OT1 with ST1/2 (+70 °C für 10 minutes), communications processor CP 1243-1 for connection of SIMATIC S7-1200 as additional Ethernet interface and for connection to control centers via telecontrol protocols (DNP3, IEC 60870, TeleControl Basic), security (firewall, VPN)

Figure similar

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 	1
• for power supply	0
type of electrical connection	
 at the 1st interface / according to Industrial Ethernet 	RJ45 port
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage / 1 / from backplane bus	5 V
consumed current	
• from backplane bus / at DC / at 5 V / typical	0.25 A
power loss [W]	1.25 W
ambient conditions	
ambient temperature	
 for vertical installation / during operation 	-25 +60 °C
 for horizontally arranged busbars / during operation 	-25 +70 °C
during storage	-40 +70 °C
 during transport 	-40 +70 °C
• note	+70 °C for 10 min (OT1, 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 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	and the second s
• 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	
module format	Compact module S7-1200 single width
width	30 mm
height	110 mm
depth	75 mm
net weight	0.122 kg
fastening method	
35 mm top hat DIN rail mounting	Yes
wall mounting	Yes
product features, product functions, product components / gen	
	erai
number of units	
per CPU / maximum	3
performance data / open communication	
number of possible connections / for open communication	
by means of T blocks / maximum	like CPU
performance data / S7 communication	
number of possible connections / for S7 communication	
maximum	like CPU
performance data / IT functions	
number of possible connections	
as email client / maximum	1
performance data / telecontrol	
suitability for use	
 node station 	No
substation	Vac
	Yes
TIM control center	No No
TIM control center control center connection	
	No
control center connection	No For use with TeleControl Server Basic, WinCC and PCS7
control center connection • by means of a permanent connection	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard
control center connection • by means of a permanent connection • note	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard
control center connection • by means of a permanent connection • note protocol / is supported	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols
control center connection • by means of a permanent connection • note protocol / is supported • DNP3	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5 product function / data buffering if connection is aborted	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes Yes; 64,000 events
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5 product function / data buffering if connection is aborted number of data points per station / maximum number of stations / for direct communication / with Telecontrol	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes Yes; 64,000 events
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5 product function / data buffering if connection is aborted number of data points per station / maximum number of stations / for direct communication / with Telecontrol Server Basic	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes Yes; 64,000 events 200
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5 product function / data buffering if connection is aborted number of data points per station / maximum number of stations / for direct communication / with Telecontrol Server Basic • in send direction / maximum	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes Yes; 64,000 events 200
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5 product function / data buffering if connection is aborted number of data points per station / maximum number of stations / for direct communication / with Telecontrol Server Basic • in send direction / maximum • in receive direction / maximum	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes Yes; 64,000 events 200
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5 product function / data buffering if connection is aborted number of data points per station / maximum number of stations / for direct communication / with Telecontrol Server Basic • in send direction / maximum • in receive direction / maximum performance data / teleservice	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes Yes; 64,000 events 200 3 15
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5 product function / data buffering if connection is aborted number of data points per station / maximum number of stations / for direct communication / with Telecontrol Server Basic • in send direction / maximum • in receive direction / maximum performance data / teleservice diagnostics function / online diagnostics with SIMATIC STEP 7	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes Yes; 64,000 events 200 3 15
control center connection • by means of a permanent connection • note protocol / is supported • DNP3 • IEC 60870-5 product function / data buffering if connection is aborted number of data points per station / maximum number of stations / for direct communication / with Telecontrol Server Basic • in send direction / maximum • in receive direction / maximum performance data / teleservice diagnostics function / online diagnostics with SIMATIC STEP 7 product function	No For use with TeleControl Server Basic, WinCC and PCS7 supported Connection to SCADA system via Telecontrol Server Basic and Standard Telecontrol protocols Yes Yes Yes; 64,000 events 200 3 15

product functions / management, configuration, engineering	
configuration software	
• required	STEP 7 Basic/Professional
roduct functions / diagnostics	
product function / web-based diagnostics	Yes
roduct functions / security	
firewall version	stateful inspection
product function / with VPN connection	IPsec, SINEMA RC
type of encryption algorithms / with VPN connection	AES-256, AES-192, AES-128, 3DES-168
type of authentication procedure / with VPN connection	Preshared key (PSK), X.509v3 certificates
type of hashing algorithms / with VPN connection	MD5, SHA-1, SHA-2
number of possible connections / with VPN connection	8
product function	
password protection for Web applications	No
password protection for teleservice access	No
encrypted data transmission	Yes
ACL - IP-based ACL - IP-based	No
ACL - IP-based for PLC/routing Autitab off of pap required applicace	No Voc
switch-off of non-required services blocking of communication via physical parts	Yes
 blocking of communication via physical ports log file for unauthorized access 	No No
oduct functions / time	NO
protocol / is supported • NTP	Yes
NTP (secure)	Yes
time synchronization	165
• from NTP-server	Yes
• from control center	Yes
roduct functions / position detection	
certificate of suitability / railway application in accordance with	Yes; EMC for railway vehicles
EN 50121-3-2 certificate of suitability / railway application in accordance with	Yes; EMC for signal and telecommunication equipment
EN 50121-4 certificate of suitability / railway application in accordance with	Yes; Railway applications - Overvoltage category OV2 pollution degree PD2
EN 50124-1 certificate of suitability / railway application in accordance with	rated impulse voltage UNi = 0.5 kVUNm = DC 24 Yes; Railway vehicles - See ambient conditions
EN 50125-1	
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 OT1, 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
andards, specifications, approvals	
reference code	
• according to IEC 81346-2:2019	KEC
rther information / internet links	
internet link	
• 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
ecurity information	
security information	Siemens provides products and solutions with industrial cybersecurity function 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)

General Product Approval

EMV

Miscellaneous

Manufacturer Declaration









Railway

Confirmation

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12/8/2024

