

Product type designation

CP 1628

Communications processor CP 1628 PCI Express X1 (3, 3 V/12 V) for connection to Industrial Ethernet (10/100/1000 Mbit/s) with 2-port switch (RJ45) and integrated security (firewall VPN) via HARDNET-IE S7 and S7-REDCONNECT Operating system support see SIMATIC NET software



Transfer rate

Transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s
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Interfaces

Number of electrical connections	
<ul style="list-style-type: none"> at the 1st interface / acc. to Industrial Ethernet for power supply 	<p>2</p> <p>1</p>
Type of electrical connection	
<ul style="list-style-type: none"> at the 1st interface / acc. to Industrial Ethernet for power supply 	<p>RJ45 port</p> <p>2-pole terminal block</p>

Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage	DC
Type of voltage supply / optional external supply	Yes
Supply voltage	
<ul style="list-style-type: none"> 1 / from backplane bus 2 / from backplane bus external external 	<p>3.3 V</p> <p>12 V</p> <p>24 V</p> <p>10.5 ... 32 V</p>

Relative symmetrical tolerance / at DC	
<ul style="list-style-type: none"> • at 3.3 V • at 5 V • at 12 V • at 24 V 	9 % 5 % 8 % 33 %
Consumed current	
<ul style="list-style-type: none"> • 1 / from backplane bus / at DC / maximum • 2 / from backplane bus / at DC / maximum • from external supply voltage / at DC / at 12 V / maximum • from external supply voltage / at DC / at 24 V / maximum 	0.85 A 0.4 A 0.55 A 0.3 A
Power loss [W]	7.6 W
Power loss [W] / in switch mode / maximum	7.2 W

Ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	5 ... 55 °C -20 ... +60 °C -20 ... +60 °C
Relative humidity / at 25 °C / without condensation / during operation / maximum	95 %
Protection class IP	IP00

Design, dimensions and weights

Module format	PCI Express x1 (half length)
Width	18 mm
Height	111 mm
Depth	167 mm
Net weight	124 g

Product features, product functions, product components / general

Number of plug-in cards of same design / plug-in / per PC station	4
Number of units / Note	-

Performance data

Performance data / open communication

Software / for open communication / by means of SEND/RECEIVE / required	Yes, HARDNET-IE S7 (S7-1613)
Number of possible connections / for open communication / by means of SEND/RECEIVE / maximum	120

Performance data / S7 communication

Software / for S7 communication / required	Yes, HARDNET-IE S7 (S7-1613)
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Number of possible connections / for S7/PG communication / maximum	120
Number of possible connections / for optimized S7 communication / maximum	64

Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode	120
Number of configurable connections / per PC station	207

Performance data / PROFINET CBA

Software / for PROFINET CBA communication / required	Yes, PN CBA OPC server
Number of remote connection partners / with PROFINET CBA	228
Number of connections / with PROFINET CBA / total	10000

Product functions / management, configuration, engineering

Product function / MIB support	Yes
Protocol / is supported	
• SNMP v1	Yes
• SNMP v3	Yes
• DCP	Yes
• LLDP	No
Configuration software / required	Included in the scope of delivery of the required software product
Configuration software / for PROFINET CBA / required	Yes, SIMATIC iMAP
Identification & maintenance function	
• I&M0 - device-specific information	Yes
• I&M1 – higher-level designation/location designation	Yes
• I&M2 - installation date	No
• I&M3 - comment	No
• I&M4 - signature	No
• I&M4 - OEM data	No

Product functions / Switch

Product feature / Switch	Yes
Product function / switch-managed	No
Product function / with IRT / PROFINET IO switch	No

Product functions / redundancy

Software / for redundancy function / required	Yes, HARDNET-IE S7-REDCONNECT for communication with SIMATIC S7 H systems
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Product functions / Security

Firewall version	stateful inspection
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Product function / with VPN connection	IPSec
Type of encryption algorithms / with VPN connection	AES-256, AES-192, AES-128, 3DES-168, DES-56
Type of authentication procedure / with VPN connection	Preshared key (PSK), X.509v3 certificates
Type of hashing algorithms / with VPN connection	MD5, SHA-1
Number of possible VPN tunnels	64
Number of possible connections / for S7 communication	
• via ISO and VPN / with S7-REDCONNECT / maximum	64
• via TCP and VPN / with S7-REDCONNECT / maximum	120
Number of available IP addresses / with VPN connection / maximum	16

Product functions / time

Product function / SICLOCK support	Yes
Protocol / is supported / NTP	Yes

Standards, specifications, approvals

Standard	
• for EMC	2004/108/EC
• for safety / from CSA and UL	CAN/CSA C22.2 & UL 60950-1, UL 1950
• for emitted interference	EN 61000-6-3, EN 61000-6-4
• for interference immunity	EN 61000-6-1, EN 61000-6-2
Certificate of suitability	
• CE marking	Yes
• C-Tick	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	http://www.siemens.com/industrial-controls/mall
• 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

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