

Product type designation

CP 443-1 Advanced

Communications processor CP 443-1 Advanced for connection from SIMATIC S7-400 to FW V4.x to Industrial Ethernet PROFINET IO Controller and PROFINET CBA, ISO, TCP/IP SEND/RECEIVE and Fetch/Write, UDP, TCP, S7 communication, with and without RFC1006, Multicast HTML FTP Client/Server SNMP, DHCP, Email, WWW, 10/100 MBit, Switch connection 4x RJ45



Transmission rate

Transfer rate

- at the 1st interface

10 ... 100 Mbit/s

Interfaces

Number of interfaces / acc. to Industrial Ethernet

4

Number of electrical connections

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

4

Type of electrical connection

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

RJ45 port

design of the removable storage / C-PLUG

Yes

Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage

DC

Supply voltage / 1 / from backplane bus

5 V

Supply voltage

5 V

Relative symmetrical tolerance / at DC

- at 5 V

5 %

Consumed current

• from backplane bus / at DC / at 5 V / typical	1.8 A
Power loss [W]	7.25 W
Ambient conditions	
Ambient temperature	
• during operation	0 ... 60 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
Relative humidity	
• at 25 °C / without condensation / during operation / maximum	95 %
Protection class IP	IP20
Design, dimensions and weight	
Module format	Compact module S7-400 single width
Width	25 mm
Height	290 mm
Depth	210 mm
Net weight	0.7 kg
Product properties, functions, components / general	
Number of units	
• per CPU / maximum	14
• Note	max. 4 as PN IO ctrl.
Performance data / open communication	
Number of possible connections / for open communication / by means of SEND/RECEIVE blocks / maximum	64
Amount of data	
• as user data per ISO connection / for open communication / by means of SEND/RECEIVE blocks / maximum	8 Kibyte
• as user data per ISO on TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum	8 Kibyte
• as user data per TCP connection / for open communication / by means of SEND/RECEIVE blocks / maximum	8 Kibyte
• as user data per UDP connection / for open IE communication / by means of SEND/RECEIVE blocks / maximum	2 Kibyte
Number of possible connections / for open communication	
• by means of T blocks / maximum	64
Amount of data	

- as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum

1452 byte

Performance data / S7 communication

Number of possible connections / for S7 communication

- maximum
- with PG connections / maximum
- with OP connections / maximum
- Note

128

2

30

when using several CPUs

Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode

128

Performance data / IT functions

Number of possible connections

- as client / by means of FTP / maximum
- as server / by means of FTP / maximum

20

10

Number of possible connections

- as server / by means of HTTP / maximum
- as e-mail client / maximum

4

1

Amount of data / as user data for email / maximum

2 Kibyte

Storage capacity / of the user memory

- as flash memory file system
- as RAM
- additionally buffered as RAM via central backup battery

30 Mibyte

16 Mibyte

512 Kibyte

Number of possible write cycles / of the flash memory cells

100000

Performance data / PROFINET communication / as PN IO-Controller

Product function / PROFINET IO controller

Yes

Number of PN IO devices / on PROFINET IO controller / usable / total

125

Number of PN IO IRT devices / on PROFINET IO controller / usable

0

Number of external PN IO lines / with PROFINET / per rack

4

Amount of data

- as user data for input variables / as PROFINET IO controller / maximum
- as user data for input variables / as PROFINET IO controller / maximum
- as user data for input variables per PN IO device / as PROFINET IO controller / maximum

4 Kibyte

4 Kibyte

1433 byte

• as user data for output variables per PN IO device / as PROFINET IO controller / maximum	1433 byte
• as user data for input variables per PN IO device / for each sub-module as PROFINET IO controller / maximum	240 byte
• as user data for output variables per PN IO device / for each sub-module as PROFINET IO controller / maximum	240 byte

Performance data / PROFINET CBA

Number of remote connection partners / with PROFINET CBA	64
Number of connections / with PROFINET CBA / total	600
Amount of data	
• as user data for digital inputs / with PROFINET CBA / maximum	8 Kibyte
• as user data for digital outputs / with PROFINET CBA / maximum	8 Kibyte
• as user data for arrays and data types / in the case of acyclic transmission / with PROFINET CBA / maximum	8 Kibyte
• as user data for arrays and data types / with PROFINET CBA / with cyclical transfer / maximum	250 byte
• as user data for arrays and data types / with PROFINET CBA / in the case of local interconnection / maximum	2400 byte

Performance data / PROFINET CBA / remote connection / with acyclic transmission

Refresh time / of the remote interconnections / in the case of acyclic transmission / with PROFINET CBA	100 ms
Number of remote connections to input variables / in the case of acyclic transmission / with PROFINET CBA / maximum	150
Number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum	150
Amount of data	
• as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA	8 Kibyte
• as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA	8 Kibyte

Performance data / PROFINET CBA / remote connection / with cyclic transmission

Refresh time / of the remote interconnections / with PROFINET CBA / with cyclical transfer	10 ms
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Number of remote connections to input variables / with PROFINET CBA / with cyclical transfer / maximum	250
Number of remote connections to output variables / with PROFINET CBA / with cyclical transfer / maximum	250
Amount of data • as user data for remote interconnections with input variables / with PROFINET CBA / with cyclical transfer / maximum • as user data for remote interconnections with output variables / with PROFINET CBA / with cyclical transfer / maximum	2000 byte 2000 byte

Performance data / PROFINET CBA / HMI variables via PROFINET / acyclic

Number of connectable HMI stations / for HMI variables / in the case of acyclic transmission / with PROFINET CBA	3
Refresh time / of the HMI variables / in the case of acyclic transmission / with PROFINET CBA	500 ms
Number of HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum	200
Amount of data / as user data for HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum	8 Kibyte

Performance data / PROFINET CBA / device-internal connections

Number of internal connections / with PROFINET CBA / maximum	300
Amount of data / of the internal connections / with PROFINET CBA / maximum	2400 byte

Performance data / PROFINET CBA / connections to constants

Number of connections with constants / with PROFINET CBA / maximum	500
Amount of data / as user data for interconnections with constants / with PROFINET CBA / maximum	4000 byte

Performance data / PROFINET CBA / PROFIBUS proxy functionality

Product function / with PROFINET CBA / PROFIBUS proxy functionality	No
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Product functions / management, configuration

Product function / MIB support	Yes
Protocol / is supported • SNMP v1 • LLDP	Yes No
Configuration software • required	STEP 7 V5.3 SP3 or higher

- for PROFINET CBA / required

SIMATIC iMap V3.0 SP1 and higher

Product functions / Diagnosis

Product function / Web-based diagnostics	Yes
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Product functions / switch

Product feature / Switch	Yes
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Product function

• switch-managed	No
• with IRT / PROFINET IO switch	No
• Configuration with STEP 7	Yes

Product functions / Redundancy

Product function	
• Ring redundancy	No

Product functions / Security

Product function	
• password protection for Web applications	Yes
• ACL - IP-based	Yes
• ACL - IP-based for PLC/routing	No
• switch-off of non-required services	No
• Blocking of communication via physical ports	Yes
• log file for unauthorized access	No

Product functions / Time

Product function / SICLOCK support	Yes
Product function / pass on time synchronization	Yes
Protocol / is supported	
• NTP	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

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