

Data sheet

6GK7443-1EX40-0XE0

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
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Transfer rate	
Transfer rate	
<ul style="list-style-type: none"> at the 1st interface 	10 ... 100 Mbit/s

Interfaces	
Number of interfaces / acc. to Industrial Ethernet	4
Number of electrical connections	
<ul style="list-style-type: none"> at the 1st interface / acc. to Industrial Ethernet 	4
Type of electrical connection	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> at 5 V 	5 %
Consumed current	
<ul style="list-style-type: none"> from backplane bus / at DC / at 5 V / typical 	1.8 A
Power loss [W]	7.25 W

Ambient conditions	
Ambient temperature	
<ul style="list-style-type: none"> during operation 	0 ... 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	
Module format	Compact module S7-400 single width

Width	25 mm
Height	290 mm
Depth	210 mm
Net weight	0.7 kg

Product features, product functions, product 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	128; when using several CPUs
• with PG connections / maximum	2
• with OP connections / maximum	30

Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode	128
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Performance data / IT functions

Number of possible connections	
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• as client / by means of FTP / maximum	20
• as server / by means of FTP / maximum	10
Number of possible connections	
• as server / by means of HTTP / maximum	4
• as e-mail client / maximum	1
Amount of data / as user data for email / maximum	2 Kibyte
Storage capacity / of the user memory	
• as flash memory file system	30 Mibyte
• as RAM	16 Mibyte
• additionally buffered as RAM via central backup battery	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	4 Kibyte
• as user data for input variables / as PROFINET IO controller / maximum	4 Kibyte
• as user data for input variables per PN IO device / as PROFINET IO controller / maximum	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 interconnection / with acyclic transfer

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 <ul style="list-style-type: none"> • 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 interconnection / with cyclic transfer

Refresh time / of the remote interconnections / with PROFINET CBA / with cyclical transfer	10 ms
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 <ul style="list-style-type: none"> • as user data for remote interconnections with input variables / with PROFINET CBA / with cyclical transfer / maximum 2000 byte • as user data for remote interconnections with output variables / with PROFINET CBA / with cyclical transfer / maximum 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 interconnections

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 / interconnections 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, engineering

Product function / MIB support	Yes
Protocol / is supported	
• SNMP v1	Yes
• LLDP	No
Configuration software	
• required	STEP 7 V5.3 SP3 or higher
• for PROFINET CBA / required	SIMATIC iMap V3.0 SP1 and higher

Product functions / Diagnostics

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

Product feature / Switch	Yes
Product function	
• switch-managed	No
• with IRT / PROFINET IO switch	No
• Configuration with STEP 7	Yes

Product functions / redundancy

Product function	
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- Ring redundancy

No

Product functions / Security

Product function

- password protection for Web applications
- ACL - IP-based
- ACL - IP-based for PLC/routing
- switch-off of non-required services
- Blocking of communication via physical ports
- log file for unauthorized access

Yes

Yes

No

No

Yes

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
- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAx Download Manager
- to website: Industry Online Support

<http://www.siemens.com/snst>

<http://www.siemens.com/simatic-net>

<https://mall.industry.siemens.com>

<http://www.siemens.com/industry/infocenter>

<http://automation.siemens.com/bilddb>

<http://www.siemens.com/cax>

<https://support.industry.siemens.com>

Security information

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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)

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