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Data sheet 6GK7443-1EX41-0XE0

Product type designation

CP 443-1 Advanced

SIMATIC NET, CP 443-1 ADVANCED COMMUNICATION PROCESSOR FOR CONNECTING SIMATIC S7-400 CPU UP TO V5.0 TO IND. ETHERNET VIA PROFINET IO-CONTROLLER AND PROFINET CBA, ISO,TCP/IP SEND/RECEIVE A. FETCH/WRITE, UDP, TCP, S7-COMMUNICATION, W. AND W/O RFC1006, MULTICAST HTML DIAGNOS.,FTP CLIENT/SERVER SNMP, DHCP, E-MAIL, WWW, 10/100 MBIT, SWITCH CONNECTION 4XRJ45



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	

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• from backplane bus / at DC / at 5 V / typical	1.8 A
Power loss [W]	7.25 W

Permitted 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	

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• 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
• with PG connections / maximum	2
• with OP connections / maximum	30
• Note	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	20
• as server / by means of FTP / maximum	10
• 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	8 Kibyte
• as user data for input variables / as PROFINET IO controller / maximum	8 Kibyte
• as user data for input variables per PN IO device / as PROFINET IO controller / maximum	1433 byte

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• 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	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 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
Product function / MIB support	Yes
Protocol / is supported	
• SNMP v1	Yes
• LLDP	No
Configuration software	
• required	STEP 7 V5.4 SP1 or higher
• for PROFINET CBA / required	SIMATIC iMap V3.0 SP1 and higher

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

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	
• Ring redundancy	No
• Parallel Redundancy Protocol (PRP)/operation in the PRP-network	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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