SIEMENS

Data sheet

6GK7542-1AX00-0XE0

product type designation



CM 1542-1

communications module CM 1542-1 for connection of S7-1500 to PROFINET as IO Controller or IO Device: TCP/IP, ISO-on-TCP, UDP, S7 communication, IP broadcast multicast, SNMPV1, time synchronization via NTP, 2xRJ45 (10/100 Mbit)

transfer rate	
transfer rate	
at the 1st interface	10 100 Mbit/s
interfaces	
number of interfaces / acc. to Industrial Ethernet	1
number of electrical connections	
• at the 1st interface / acc. to Industrial Ethernet	2
type of electrical connection	
 at the 1st interface / acc. 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	15 V
relative symmetrical tolerance / at DC	
• at 15 V	3 %
consumed current	
from backplane bus / at DC / at 15 V / typical	0.22 A
power loss [W]	3.3 W
ambient conditions	
ambient temperature	
 for vertical installation / during operation 	0 40 °C
 for horizontally arranged busbars / 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 weights	
module format	Compact module S7-1500 single width
width	35 mm
height	142 mm
depth	129 mm
net weight	0.4 kg
fastening method	
S7-1500 rail mounting	Yes
product features, product functions, product components	/ general
number of units	
per CPU / maximum	8

• note	depending on CPU type
performance data / open communication	
number of possible connections / for open communication	
by means of T blocks / maximum	64; depending on the system upper limit
data volume	
as user data per ISO on TCP connection / for open communication / by means of T blocks / maximum	65536 byte
number of Multicast stations	6
performance data / S7 communication	
number of possible connections / for S7 communication	
maximum	64; depending on the system upper limit
performance data / multi-protocol mode	
number of active connections / with multi-protocol mode	64
performance data / PROFINET communication / as PN IO o	controller
product function / PROFINET IO controller	Yes
number of PN IO devices / on PROFINET IO controller / operable / total	128
number of PN IO IRT devices / on PROFINET IO controller / operable	64
number of external PN IO lines / with PROFINET / per rack	10
data volume	
 as user data for input variables / as PROFINET IO controller / maximum 	8 Kibyte
 as user data for output 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
 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 	256 byte
 as user data for output variables per PN IO device / for each sub-module as PROFINET IO controller / maximum 	256 byte
performance data / PROFINET communication / as PN IO o	levice
product function / PROFINET IO device	Yes
data volume	
 as user data for input variables / as PROFINET IO device / maximum 	8192 byte
 as user data for output variables / as PROFINET IO device / maximum 	8192 byte
 as user data for input variables / for each sub- module as PROFINET IO device 	256 byte
 as user data for output variables / for each sub- module as PROFINET IO device 	256 byte
as user data for the consistency area for each sub- module	256 byte
number of submodules / per PROFINET IO-Device	32
performance data / telecontrol	
protocol / is supported	
• TCP/IP	Yes
product functions / management, configuration, engineeri	ng
product function / MIB support	Yes
protocol / is supported	
• SNMP v1	Yes
• DCP	Yes
• LLDP	Yes
configuration software	
• required	STEP 7 Professional V14 (TIA Portal) or higher
identification & maintenance function • I&M0 - device-specific information	Yes

product functions / diagnostics product function / web-based diagnostics Product functions / switch product feature / switch product function • switch-managed • with IRT / PROFINET IO switch • configuration with STEP 7 Yes	
product functions / switch product feature / switch product function • switch-managed • with IRT / PROFINET IO switch Yes	
product feature / switch product function ● switch-managed ● with IRT / PROFINET IO switch Yes Yes	o 1 Mbps
product feature / switch product function ● switch-managed ● with IRT / PROFINET IO switch Yes	o 1 Mbps
 switch-managed with IRT / PROFINET IO switch No Yes	o 1 Mbps
• with IRT / PROFINET IO switch Yes	o 1 Mbps
	o 1 Mbps
• configuration with STEP 7 Yes	o 1 Mbps
	o 1 Mbps
product functions / routing	o 1 Mbps
service / routing / note IP routing up to	
product function	
• static IP routing Yes	
• static IP routing IPv6 No	
dynamic IP routing No	
dynamic IP routing IPv6 No	
protocol / is supported	
• RIP v1 No	
• RIPv2 No	
• RIPnG for IPv6 No	
• OSPFv2 No	
OSPFv3 for IPv6 No	
• VRRP No	
• VRRP for IPv6 No	
• BGP No	
• PPP No	
PPoE via DSL No	
product functions / redundancy	
product function	
• ring redundancy Yes	
• redundancy manager Yes	
protocol / is supported / Media Redundancy Protocol Yes (MRP)	
product functions / security	
product function	
switch-off of non-required services Yes	
blocking of communication via physical ports	
• 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	
standards, specifications, approvals / hazardous environments	
certificate of suitability / CCC / for hazardous zone Yes according to GB standard	
further information / internet-Links	
Internet-Link	
• to web page: selection aid TIA Selection Tool http://www.siel	mens.com/tia-selection-tool
• to website: Industrial communication http://www.sier	mens.com/simatic-net
• to website: Industry Mall https://mall.ind	ustry.siemens.com
• to website: Information and Download Center http://www.sier	mens.com/industry/infocenter
• to website: Image database http://automaticalcolor:	on.siemens.com/bilddb
• to website: CAx-Download-Manager http://www.sier	mens.com/cax
• to website: Industry Online Support https://support	.industry.siemens.com
security information	
functions that smachines, equ	des products and solutions with industrial security support the secure operation of plants, solutions, ipment and/or networks. They are important components lustrial security concept. With this in mind, Siemens'

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last modified:

8/3/2021