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-of-day synchronization via NTP, 2xRJ45 (10/100 Mbit).

transfer rate	
transfer rate	
● at the 1st interface	10 ... 100 Mbit/s

interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
● at the 1st interface / according to Industrial Ethernet	2
type of electrical connection	
● at the 1st interface / according 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

5/2/2022

● 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 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 device	
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, engineering	
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

● I&M1 – higher level designation/location designation	Yes

product functions / diagnostics	
product function / web-based diagnostics	Yes; via S7-1500 CPU

product functions / switch	
product feature / switch	Yes
product function	
● switch-managed	No
● with IRT / PROFINET IO switch	Yes
● configuration with STEP 7	Yes

product functions / routing	
service / routing / note	IP routing up to 1 Mbps
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 (MRP)	Yes

product functions / security	
product function	
● switch-off of non-required services	Yes
● blocking of communication via physical ports	No
● 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 according to GB standard	Yes

further information / internet-Links	
Internet-Link	
● to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
● 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	
security information	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'

last modified: 8/3/2021