

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	
<ul style="list-style-type: none"> at the 1st interface 	10 ... 100 Mbit/s
interfaces	
number of interfaces / according to Industrial Ethernet	1
number of electrical connections	
<ul style="list-style-type: none"> at the 1st interface / according to Industrial Ethernet 	2
type of electrical connection	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> at 15 V 	3 %
consumed current	
<ul style="list-style-type: none"> from backplane bus / at DC / at 15 V / typical 	0.22 A
power loss [W]	3.3 W
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> for vertical installation / during operation 	0 ... 40 °C
<ul style="list-style-type: none"> for horizontally arranged busbars / 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 S7-1500 single width
width	35 mm
height	142 mm
depth	129 mm
net weight	0.4 kg
fastening method	
<ul style="list-style-type: none"> S7-1500 rail mounting 	Yes
product features, product functions, product components / general	
number of units	
<ul style="list-style-type: none"> 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 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

<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • switch-managed 	No
<ul style="list-style-type: none"> • with IRT / PROFINET IO switch 	Yes
<ul style="list-style-type: none"> • configuration with STEP 7 	Yes
product functions / routing	
service / routing / note	IP routing up to 1 Mbps
product function	
<ul style="list-style-type: none"> • static IP routing 	Yes
<ul style="list-style-type: none"> • static IP routing IPv6 	No
<ul style="list-style-type: none"> • dynamic IP routing 	No
<ul style="list-style-type: none"> • dynamic IP routing IPv6 	No
protocol / is supported	
<ul style="list-style-type: none"> • RIP v1 	No
<ul style="list-style-type: none"> • RIPv2 	No
<ul style="list-style-type: none"> • RIPnG for IPv6 	No
<ul style="list-style-type: none"> • OSPFv2 	No
<ul style="list-style-type: none"> • OSPFv3 for IPv6 	No
<ul style="list-style-type: none"> • VRRP 	No
<ul style="list-style-type: none"> • VRRP for IPv6 	No
<ul style="list-style-type: none"> • BGP 	No
<ul style="list-style-type: none"> • PPP 	No
<ul style="list-style-type: none"> • PPOE via DSL 	No
product functions / redundancy	
product function	
<ul style="list-style-type: none"> • ring redundancy 	Yes
<ul style="list-style-type: none"> • redundancy manager 	Yes
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
product functions / security	
product function	
<ul style="list-style-type: none"> • switch-off of non-required services 	Yes
<ul style="list-style-type: none"> • blocking of communication via physical ports 	No
<ul style="list-style-type: none"> • log file for unauthorized access 	No
product functions / time	
product function / SICLOCK support	Yes
product function / pass on time synchronization	Yes
protocol / is supported	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool 	http://www.siemens.com/tia-selection-tool
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx-Download-Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • 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'

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last modified:

8/3/2021 