SIEMENS

## Data sheet 6GK7542-1AX00-0XE0

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| **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).

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| **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 |
| ● note | depending on CPU type |

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| **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 |

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| 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 |
| ● as marking | Ex nA IIC T4 Gc |
| **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' 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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