

product type designation



TIM 1531 IRC

TIM 1531 IRC Communications module for SIMATIC S7-1500, S7-400, S7-300 and ET200SP with SINAUT ST7, DNP3 and IEC 60870-5-101/104 with three RJ45 interfaces for communication via IP-based networks (WAN / LAN) and an RS-232/RS-485 interface for communication via classic wide area networks.

| transfer rate | |
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| transfer rate | |
| <ul style="list-style-type: none"> at the 1st interface | 10 ... 1000 Mbit/s |
| <ul style="list-style-type: none"> at the 2nd interface | 10 ... 100 Mbit/s |
| <ul style="list-style-type: none"> at the 3rd interface | 10 ... 100 Mbit/s |
| <ul style="list-style-type: none"> according to RS 232 | 300 ... 115200 bit/s |
| interfaces | |
| number of interfaces / according to Industrial Ethernet | 3 |
| number of electrical connections | |
| <ul style="list-style-type: none"> for external data transmission / according to RS 232 | 1 |
| <ul style="list-style-type: none"> for power supply | 1 |
| number of slots | |
| <ul style="list-style-type: none"> for memory cards | 1 |
| type of electrical connection | |
| <ul style="list-style-type: none"> of Industrial Ethernet interface | RJ45 port |
| type of electrical connection | |
| <ul style="list-style-type: none"> at interface 1 / for external data transmission | 9 pin Sub-D-connector, RS232 switchable to RS485 |
| <ul style="list-style-type: none"> for power supply | 2-pole plugable terminal block |
| slot version | |
| <ul style="list-style-type: none"> of the memory card | SD 1.0, SD 1.1, SDHC, Siemens SMC |
| storage capacity / of the memory card / maximum | 32 Gbyte |
| supply voltage, current consumption, power loss | |
| type of voltage / of the supply voltage | DC |
| supply voltage | 24 V |
| supply voltage | 20.4 ... 28.8 V |
| supply voltage / external / at DC / rated value | 24 V |
| supply voltage / external / at DC / rated value | 20.4 ... 28.8 V |
| consumed current | |
| <ul style="list-style-type: none"> from external supply voltage / at DC / at 24 V / typical | 0.15 A |
| <ul style="list-style-type: none"> from external supply voltage / at DC / at 24 V / maximum | 0.3 A |
| power loss [W] / with external supply voltage / at 24 V DC | |
| <ul style="list-style-type: none"> in update mode / typical | 3.9 W |
| <ul style="list-style-type: none"> in communication mode / typical | 3.9 W |
| product extension / optional / backup battery | No |
| ambient conditions | |
| ambient temperature | |
| <ul style="list-style-type: none"> during operation | 0 ... 70 °C |
| <ul style="list-style-type: none"> for vertical installation / during operation | 0 ... 50 °C |
| <ul style="list-style-type: none"> for horizontally arranged busbars / during operation | 0 ... 70 °C |

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| <ul style="list-style-type: none"> during storage 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 double-wide |
| width | 70 mm |
| height | 147 mm |
| depth | 129 mm |
| net weight | 0.525 kg |
| fastening method <ul style="list-style-type: none"> 35 mm DIN-rail mounting S7-300 rail mounting S7-1500 rail mounting | No No Yes |
| product features, product functions, product components / general | |
| product function <ul style="list-style-type: none"> DynDNS client | No |
| number of units <ul style="list-style-type: none"> note | Number of TIM per S7-1500: 1 |
| wire length <ul style="list-style-type: none"> with RS 232 interface / maximum with RS 485 interface / maximum | 6 m 30 m |
| performance data / S7 communication | |
| number of possible connections / for S7 communication <ul style="list-style-type: none"> maximum with PG connections / maximum with PG/OP connections / maximum with OP connections / maximum | 132; only via LAN 4 4 4 |
| service <ul style="list-style-type: none"> of SIMATIC communication / as server SINAUT ST7 via S7 communication PG/OP communication | Yes Yes Yes |
| performance data / IT functions | |
| number of possible connections <ul style="list-style-type: none"> as server / by means of HTTP / maximum as server / by means of HTTPS / maximum as email client / maximum | 2 2; 2 per Ethernet interface 1 |
| performance data / telecontrol | |
| suitability for use <ul style="list-style-type: none"> node station substation TIM control center | Yes Yes Yes |
| control center connection <ul style="list-style-type: none"> by means of a permanent connection | Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol |
| protocol / is supported <ul style="list-style-type: none"> DNP3 IEC 60870-5 SINAUT ST1 protocol SINAUT ST7 protocol Modbus RTU | Yes Yes No Yes No |
| product function / data buffering if connection is aborted | Yes; 100000 data telegrams (ST7) or 250000 events (IEC 60870-5 / DNP3) |
| number of data points per station / maximum | 3000 |
| number of DNP3 masters <ul style="list-style-type: none"> for Ethernet / maximum with RS 232 interface / maximum | 4 4 |
| product feature / buffered message frame memory | Yes |
| transmission format <ul style="list-style-type: none"> for SINAUT ST7 protocol with polling or spontaneous / 10-bit or 11-bit | Yes |

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| operating mode for scanning of data transmission | |
| <ul style="list-style-type: none"> with dedicated line/radio link / with SINAUT ST7 protocol with dial-up network / with SINAUT ST7 protocol | Polling, polling with time slot procedure spontaneous |
| hamming distance | |
| <ul style="list-style-type: none"> for SINAUT ST7 protocol | 4 |
| performance data / teleservice | |
| diagnostics function / online diagnostics with SIMATIC STEP 7 | Yes |
| product function | |
| <ul style="list-style-type: none"> program download with SIMATIC STEP 7 remote firmware update remote configuration | Yes Yes Yes |
| product functions / management, configuration, engineering | |
| product function / MIB support | Yes |
| protocol / is supported | |
| <ul style="list-style-type: none"> SNMP v1 SNMP v3 DCP LLDP | Yes Yes Yes Yes |
| configuration software | |
| <ul style="list-style-type: none"> required for CPU configuring / required / SINAUT TD7 block library for CPU for PG configuring / required / SINAUT ST7 configuration software for PG | STEP 7 Professional V14 SP1 (TIA Portal) or higher No No |
| storage location / of TIM configuration data | Flash or SD card of the TIM 1531 IRC |
| identification & maintenance function | |
| <ul style="list-style-type: none"> I&M0 - device-specific information I&M1 - higher level designation/location designation I&M2 - installation date I&M3 - comment | Yes Yes Yes Yes |
| product function / is supported / identification link | Yes; acc. to IEC 61406-1:2022 |
| product functions / diagnostics | |
| product function / web-based diagnostics | Yes |
| product functions / routing | |
| service / routing / note | IP routing up to 1 Mbps |
| product function | |
| <ul style="list-style-type: none"> static IP routing static IP routing IPv6 dynamic IP routing dynamic IP routing IPv6 | Yes Yes No No |
| protocol / is supported | |
| <ul style="list-style-type: none"> RIP v1 RIPv2 RIPnG for IPv6 OSPFv2 OSPFv3 for IPv6 VRRP VRRP for IPv6 BGP PPP PPoE via DSL | No No No No No No No No No No |
| product functions / security | |
| product function | |
| <ul style="list-style-type: none"> MSC client via GPRS modem with MSC capability | Yes |
| protocol | |
| <ul style="list-style-type: none"> is supported / MSC protocol with Virtual Private Network MSC / is supported | Yes TCP/IP |
| key length / for MSC / with Virtual Private Network | 128 bit |
| number of possible connections | |
| <ul style="list-style-type: none"> as MSC client / with VPN connection as MSC server / with VPN connection | 1 127 |

| product functions / time | |
|--|--|
| product function / SICLOCK support | No |
| product function / pass on time synchronization | Yes |
| protocol / is supported | |
| • NTP | Yes |
| • NTP (secure) | Yes |
| product component / hardware real time clock | No |
| product feature / hardware real time clock w. battery backup | No |
| time synchronization | |
| • from NTP-server | Yes |
| • from GPS-signal | No |
| • from control center | Yes |
| • from mobile network provider | No |
| • PC | No |
| • manual setting | No |
| product functions / position detection | |
| product function | |
| • position detection with GPS | No |
| • pass on position data | No |
| standards, specifications, approvals | |
| reference code | |
| • according to IEC 81346-2:2019 | KEC |
| certificate of suitability / CE marking | Yes |
| certificate of suitability / Regulatory Compliance Mark (RCM) | Yes |
| certificate of suitability / RoHS conformity | Yes |
| certificate of suitability / EAC approval | Yes |
| standards, specifications, approvals / hazardous environments / header | |
| certificate of suitability / ATEX | Yes |
| certificate of suitability / IECEx | Yes |
| certificate of suitability / CCC / for hazardous zone according to GB standard | Yes |
| certificate of suitability / FM registration | Yes |
| standards, specifications, approvals / marine classification / header | |
| Marine classification association / Det Norske Veritas (DNV) | Yes |
| standards, specifications, approvals / Environmental Product Declaration | |
| Environmental Product Declaration | Yes |
| further information / internet links | |
| internet link | |
| • to website: Selection guide for cables and connectors | https://support.industry.siemens.com/cs/ww/en/view/109766358 |
| • to web page: selection aid TIA Selection Tool | https://www.siemens.com/tstcloud |
| • to website: Industrial communication | https://www.siemens.com/simatic-net |
| • to web page: SiePortal | https://sieportal.siemens.com/ |
| • to website: Image database | https://www.automation.siemens.com/bilddb |
| • to website: CAx-Download-Manager | https://siemens.com/cax |
| • to website: Industry Online Support | https://support.industry.siemens.com |
| security information | |
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For use in hazardous locations



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Environment



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