

Product type designation

SIPLUS TIM 1531 IRC

SIPLUS TIM 1531 IRC -40...+70°C with conformal coating based on 6GK7543-1MX00-0XE0 . communication module for SIMATIC S7-1500, S7-400, S7-300 with SINAUT ST7 with three RJ145 interfaces for communication via IP-based networks (WAN / LAN) and a RS-232/RS-485- Interface for Communications via classic WAN networks



Figure similar

Transfer rate

Transfer rate

- | | |
|------------------------|----------------------|
| • at the 1st interface | 10 ... 1000 Mbit/s |
| • at the 2nd interface | 10 ... 100 Mbit/s |
| • at interface 3 | 10 ... 100 Mbit/s |
| • acc. to RS 232 | 300 ... 115200 bit/s |

Interfaces

Number of interfaces / acc. to Industrial Ethernet	3
Number of electrical connections	
• for external data transmission / acc. to RS 232	1
• for power supply	1
Number of slots	
• for memory cards	1
Type of electrical connection	
• of Industrial Ethernet interface	RJ45 port
Type of electrical connection	

<ul style="list-style-type: none"> • at interface 1 / for external data transmission • for power supply 	9 pin Sub-D-connector, RS232 switchable to RS485 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"> • for vertical installation / during operation 	-40 ... +50 °C
<ul style="list-style-type: none"> • for horizontally arranged busbars / during operation 	-40 ... +70 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +70 °C
Installation altitude / at height above sea level / maximum	5000 m
Ambient condition / relating to ambient temperature - air pressure - installation altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax - 20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity	
<ul style="list-style-type: none"> • with condensation / acc. to IEC 60068-2-38 / maximum 	100 %; RH including condensation/frost (no commissioning when condensation is present), horizontal installation
Chemical resistance / to commercially available cooling lubricants	Yes; incl. airborne diesel and oil droplets
Resistance to biologically active substances	
<ul style="list-style-type: none"> • conformity acc. to EN 60721-3-3 	Yes; Class 3B2 mold and fungal spores (excluding fauna), Class 3B3 on request
<ul style="list-style-type: none"> • conformity acc. to EN 60721-3-6 	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)

Resistance to chemically active substances	Yes; Class 3C4 (RH < 75 %) incl. salt spray in accordance with EN 60068-2-52 (Severity 3). The supplied plug covers must remain in place on the unused interfaces during operation.
<ul style="list-style-type: none"> • conformity acc. to EN 60721-3-3 • conformity acc. to EN 60721-3-6 	Yes
Resistance to mechanically active substances	Yes; Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation.
<ul style="list-style-type: none"> • conformity acc. to EN 60721-3-3 • conformity acc. to EN 60721-3-6 	Yes; Class 6S3 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation.
Coating / for equipped printed circuit board / acc. to EN 61086	Yes; Class 2 for high availability
Type of coating / protection against pollution according to EN 60664-3	Yes; Protection of the type 1
Type of test / of the coating / acc. to MIL-I-46058C	Yes; Coating discoloration during service life possible
Product conformity / of the coating / Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies acc. to IPC-CC-830A	Yes; Conformal coating, class A
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
Mounting type	
<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 	132; only via LAN 4 4

<ul style="list-style-type: none"> • with OP connections / maximum 	4
Service	
<ul style="list-style-type: none"> • of SIMATIC communication / as server 	Yes
<ul style="list-style-type: none"> • SINAUT ST7 via S7 communication 	Yes
<ul style="list-style-type: none"> • PG/OP communication 	Yes

Performance data / IT functions

Number of possible connections	
<ul style="list-style-type: none"> • as server / by means of HTTP / maximum 	2
<ul style="list-style-type: none"> • as server / by means of HTTPS / maximum 	2; 2 per Ethernet interface
<ul style="list-style-type: none"> • as e-mail client / maximum 	1

Performance data / telecontrol

Suitability for use	
<ul style="list-style-type: none"> • Node station 	Yes
<ul style="list-style-type: none"> • substation 	Yes
<ul style="list-style-type: none"> • TIM control center 	Yes
Control center connection	Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol
<ul style="list-style-type: none"> • by means of a permanent connection 	Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol
Protocol / is supported	
<ul style="list-style-type: none"> • DNP3 	Yes
<ul style="list-style-type: none"> • IEC 60870-5 	Yes
<ul style="list-style-type: none"> • SINAUT ST1 protocol 	No
<ul style="list-style-type: none"> • SINAUT ST7 protocol 	Yes
<ul style="list-style-type: none"> • Modbus RTU 	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 	4
<ul style="list-style-type: none"> • with RS 232 interface / maximum 	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
Operating mode for scanning of data transmission	
<ul style="list-style-type: none"> • with dedicated line/radio link / with SINAUT ST7 protocol 	Polling, polling with time slot procedure
<ul style="list-style-type: none"> • with dial-up network / with SINAUT ST7 protocol 	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 	Yes
<ul style="list-style-type: none"> • Remote firmware update 	Yes
<ul style="list-style-type: none"> • remote configuration 	Yes

Product functions / management, configuration, engineering

Product function / MIB support	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • SNMP v1 	Yes
<ul style="list-style-type: none"> • SNMP v3 	Yes
<ul style="list-style-type: none"> • DCP 	Yes
<ul style="list-style-type: none"> • LLDP 	Yes
Configuration software	
<ul style="list-style-type: none"> • required 	STEP 7 Professional V14 SP1 (TIA Portal) or higher
<ul style="list-style-type: none"> • for CPU configuring / required / SINAUT TD7 block library for CPU 	No
<ul style="list-style-type: none"> • for PG configuring / required / SINAUT ST7 configuration software for PG 	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 	Yes
<ul style="list-style-type: none"> • I&M1 – higher-level designation/location designation 	Yes
<ul style="list-style-type: none"> • I&M2 - installation date 	Yes
<ul style="list-style-type: none"> • I&M3 - comment 	Yes

Product functions / Diagnostics

Product function / Web-based diagnostics	Yes
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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 	Yes
<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

• VRRP	No
• VRRP for IPv6	No
• BGP	No
• PPP	No
• PPoE via DSL	No

Product functions / Security

Product function	
• MSC client via GPRS modem with MSC capability	Yes
Protocol	
• is supported / MSC protocol	Yes
• with Virtual Private Network MSC / is supported	TCP/IP
Key length / for MSC / with Virtual Private Network	128 bit
Number of possible connections	
• as MSC client / with VPN connection	1
• as MSC server / with VPN connection	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

Further information / Internet-Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net

- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAx Download Manager
- to website: Industry Online Support

<https://mall.industry.siemens.com>

<http://www.siemens.com/industry/infocenter>

<http://automation.siemens.com/bilddb>

<http://www.siemens.com/cax>

<https://support.industry.siemens.com>

Security information

Security information

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