SIEMENS

Data sheet 6AG1543-1MX00-7XE0

product type designation

TIM 1531 IRC

SIPLUS TIM 1531 IRC based on 6GK7543-1MX00-0XE0 with conformal coating, -40…+70 °C, communications module for SIMATIC S7-1500, S7-400, S7-300 with SINAUT ST7 with three RJ45 interfaces for communication via IP-based networks (WAN / LAN) and an RS-232/RS-485 interface for Communications via classic wide area networks



Figure similar

product brand name	SIPLUS
Technical Product Detail Page	https://i.siemens.com/1P6AG1543-1MX00-7XE0
transfer rate	
transfer rate	
● at the 1st interface	10 ... 1000 Mbit/s
● at the 2nd interface	10 ... 100 Mbit/s
● at the 3rd interface	10 ... 100 Mbit/s
● according to RS 232	300 ... 115200 bit/s
interfaces	
number of interfaces / according to Industrial Ethernet	3
number of electrical connections	
● for external data transmission / according 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	
● at interface 1 / for external data transmission	9 pin Sub-D-connector, RS232 switchable to RS485
● for power supply	2-pole plugable terminal block
slot version	
● of the memory card	SD 1.0, SD 1.1, SDHC, Siemens SMC
storage capacity / of the memory card / maximum	32 Gibyte
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	
● from external supply voltage / at DC / at 24 V / typical	0.15 A
● from external supply voltage / at DC / at 24 V / maximum	0.3 A
power loss [W] / with external supply voltage / at 24 V DC	
● in update mode / typical	3.9 W
● in communication mode / typical	3.9 W
product extension / optional / backup battery	No
ambient conditions	

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ambient temperature	
● for vertical installation / during operation	-40 ... +50 °C
● for horizontally arranged busbars / during operation	-40 ... +70 °C
● during storage	-40 ... +70 °C
● 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	
● with condensation / according 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	
● conformity according to EN 60721-3-3	Yes; Class 3B2 mold and fungal spores (excluding fauna), Class 3B3 on request
● conformity according to EN 60721-3-6	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)
resistance to chemically active substances	
● conformity according to EN 60721-3-3	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.
● conformity according to EN 60721-3-6	Yes
resistance to mechanically active substances	
● conformity according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation.
● conformity according 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 / according 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 / according 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 according 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
fastening method	
● 35 mm DIN-rail mounting	No
● S7-300 rail mounting	No
● S7-1500 rail mounting	Yes
product features, product functions, product components / general	
product function	
● DynDNS client	No
number of units	
● note	Number of TIM per S7-1500: 1
wire length	
● with RS 232 interface / maximum	6 m
● with RS 485 interface / maximum	30 m
performance data / S7 communication	
number of possible connections / for S7 communication	
● maximum	132; only via LAN
● with PG connections / maximum	4
● with PG/OP connections / maximum	4
● with OP connections / maximum	4
service	
● of SIMATIC communication / as server	Yes

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● SINAUT ST7 via S7 communication	Yes
● PG/OP communication	Yes
performance data / IT functions	
number of possible connections	
● as server / by means of HTTP / maximum	2
● as server / by means of HTTPS / maximum	2; 2 per Ethernet interface
● as email client / maximum	1
performance data / telecontrol	
suitability for use	
● node station	Yes
● substation	Yes
● TIM control center	Yes
control center connection	Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol
● by means of a permanent connection	Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol
protocol / is supported	
● DNP3	Yes
● IEC 60870-5	Yes
● SINAUT ST1 protocol	No
● SINAUT ST7 protocol	Yes
● 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 device / maximum	3000
number of DNP3 masters	
● for Ethernet / maximum	4
● with RS 232 interface / maximum	4
product feature / buffered message frame memory	Yes
transmission format	
● for SINAUT ST7 protocol with polling or spontaneous / 10-bit or 11-bit	Yes
operating mode for scanning of data transmission	
● with dedicated line/radio link / with SINAUT ST7 protocol	Polling, polling with time slot procedure
● with dial-up network / with SINAUT ST7 protocol	spontaneous
hamming distance	
● for SINAUT ST7 protocol	4
performance data / teleservice	
diagnostics function / online diagnostics with SIMATIC STEP 7	Yes
product function	
● program download with SIMATIC STEP 7	Yes
● remote firmware update	Yes
● remote configuration	Yes
product functions / management, configuration, engineering	
product function / MIB support	Yes
protocol / is supported	
● SNMP v1	Yes
● SNMP v3	Yes
● DCP	Yes
● LLDP	Yes
configuration software	
● required	STEP 7 Professional V14 SP1 (TIA Portal) or higher
● for CPU configuring / required / SINAUT TD7 block library for CPU	No
● 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	
● I&M0 - device-specific information	Yes
● I&M1 - higher level designation/location designation	Yes
● I&M2 - installation date	Yes
● I&M3 - comment	Yes
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022

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product functions / diagnostics	
product function / web-based diagnostics	Yes
product functions / routing	
service / routing / note	IP routing up to 1 Mbps
product function	
● static IP routing	Yes
● static IP routing IPv6	Yes
● 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 / 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: 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

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security information

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Approvals / Certificates

General Product Approval

Manufacturer Declaration

China RoHS

General Product Approval

China RoHS

EMV

For use in hazardous locations

CCC-Ex

For use in hazardous locations

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