

product type designation



Figure similar

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

Technical Product Detail Page

<https://l.siemens.com/1P6AG1543-1MX00-7XE0>

transfer rate

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"> • 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 / 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 <ul style="list-style-type: none"> • conformity according 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 according to EN 60721-3-6 	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)
resistance to chemically active substances <ul style="list-style-type: none"> • 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.
<ul style="list-style-type: none"> • conformity according to EN 60721-3-6 	Yes
resistance to mechanically active substances <ul style="list-style-type: none"> • 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.
<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 35 mm DIN-rail mounting 	No
<ul style="list-style-type: none"> • S7-300 rail mounting 	No
<ul style="list-style-type: none"> • S7-1500 rail mounting 	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 	6 m
<ul style="list-style-type: none"> • with RS 485 interface / maximum 	30 m
performance data / S7 communication	
number of possible connections / for S7 communication <ul style="list-style-type: none"> • maximum 	132; only via LAN
<ul style="list-style-type: none"> • with PG connections / maximum 	4
<ul style="list-style-type: none"> • with PG/OP connections / maximum 	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 email 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 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	
• 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

security information

security information

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Approvals / Certificates

General Product Approval

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