

### 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

### transfer rate

transfer rate	
<ul style="list-style-type: none"> <li>at the 1st interface</li> </ul>	10 ... 1000 Mbit/s
<ul style="list-style-type: none"> <li>at the 2nd interface</li> </ul>	10 ... 100 Mbit/s
<ul style="list-style-type: none"> <li>at the 3rd interface</li> </ul>	10 ... 100 Mbit/s
<ul style="list-style-type: none"> <li>according to RS 232</li> </ul>	300 ... 115200 bit/s

### interfaces

number of interfaces / according to Industrial Ethernet	3
number of electrical connections	
<ul style="list-style-type: none"> <li>for external data transmission / according to RS 232</li> </ul>	1
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	1
number of slots	
<ul style="list-style-type: none"> <li>for memory cards</li> </ul>	1
type of electrical connection	
<ul style="list-style-type: none"> <li>of Industrial Ethernet interface</li> </ul>	RJ45 port
type of electrical connection	
<ul style="list-style-type: none"> <li>at interface 1 / for external data transmission</li> </ul>	9 pin Sub-D-connector, RS232 switchable to RS485
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	2-pole pluggable terminal block
slot version	
<ul style="list-style-type: none"> <li>of the memory card</li> </ul>	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"> <li>from external supply voltage / at DC / at 24 V / typical</li> </ul>	0.15 A
<ul style="list-style-type: none"> <li>from external supply voltage / at DC / at 24 V / maximum</li> </ul>	0.3 A
power loss [W] / with external supply voltage / at 24 V DC	
<ul style="list-style-type: none"> <li>in update mode / typical</li> </ul>	3.9 W
<ul style="list-style-type: none"> <li>in communication mode / typical</li> </ul>	3.9 W
product extension / optional / backup battery	No

### ambient conditions

ambient temperature	
<ul style="list-style-type: none"> <li>for vertical installation / during operation</li> </ul>	-40 ... +50 °C
<ul style="list-style-type: none"> <li>for horizontally arranged busbars / during operation</li> </ul>	-40 ... +70 °C

<ul style="list-style-type: none"> <li>during storage</li> <li>during transport</li> </ul>	-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"> <li>with condensation / according to IEC 60068-2-38 / maximum</li> </ul>	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"> <li>conformity according to EN 60721-3-3</li> <li>conformity according to EN 60721-3-6</li> </ul>	Yes; Class 3B2 mold and fungal spores (excluding fauna), Class 3B3 on request Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)
resistance to chemically active substances <ul style="list-style-type: none"> <li>conformity according to EN 60721-3-3</li> <li>conformity according to EN 60721-3-6</li> </ul>	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. Yes
resistance to mechanically active substances <ul style="list-style-type: none"> <li>conformity according to EN 60721-3-3</li> <li>conformity according to EN 60721-3-6</li> </ul>	Yes; Class 3S4 incl. sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation. 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
<b>design, dimensions and weights</b>	
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"> <li>35 mm DIN-rail mounting</li> <li>S7-300 rail mounting</li> <li>S7-1500 rail mounting</li> </ul>	No No Yes
<b>product features, product functions, product components / general</b>	
product function <ul style="list-style-type: none"> <li>DynDNS client</li> </ul>	No
number of units <ul style="list-style-type: none"> <li>note</li> </ul>	Number of TIM per S7-1500: 1
wire length <ul style="list-style-type: none"> <li>with RS 232 interface / maximum</li> <li>with RS 485 interface / maximum</li> </ul>	6 m 30 m
<b>performance data / S7 communication</b>	
number of possible connections / for S7 communication <ul style="list-style-type: none"> <li>maximum</li> <li>with PG connections / maximum</li> <li>with PG/OP connections / maximum</li> <li>with OP connections / maximum</li> </ul>	132; only via LAN 4 4 4
service <ul style="list-style-type: none"> <li>of SIMATIC communication / as server</li> <li>SINAUT ST7 via S7 communication</li> <li>PG/OP communication</li> </ul>	Yes Yes Yes
<b>performance data / IT functions</b>	
number of possible connections	

<ul style="list-style-type: none"> <li>• as server / by means of HTTP / maximum</li> </ul>	2
<ul style="list-style-type: none"> <li>• as server / by means of HTTPS / maximum</li> </ul>	2; 2 per Ethernet interface
<ul style="list-style-type: none"> <li>• as email client / maximum</li> </ul>	1
<b>performance data / telecontrol</b>	
suitability for use	
<ul style="list-style-type: none"> <li>• node station</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• substation</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TIM control center</li> </ul>	Yes
control center connection	Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol
<ul style="list-style-type: none"> <li>• by means of a permanent connection</li> </ul>	Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol
protocol / is supported	
<ul style="list-style-type: none"> <li>• DNP3</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEC 60870-5</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SINAUT ST1 protocol</li> </ul>	No
<ul style="list-style-type: none"> <li>• SINAUT ST7 protocol</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Modbus RTU</li> </ul>	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"> <li>• for Ethernet / maximum</li> </ul>	4
<ul style="list-style-type: none"> <li>• with RS 232 interface / maximum</li> </ul>	4
product feature / buffered message frame memory	Yes
transmission format	
<ul style="list-style-type: none"> <li>• for SINAUT ST7 protocol with polling or spontaneous / 10-bit or 11-bit</li> </ul>	Yes
operating mode for scanning of data transmission	
<ul style="list-style-type: none"> <li>• with dedicated line/radio link / with SINAUT ST7 protocol</li> </ul>	Polling, polling with time slot procedure
<ul style="list-style-type: none"> <li>• with dial-up network / with SINAUT ST7 protocol</li> </ul>	spontaneous
hamming distance	
<ul style="list-style-type: none"> <li>• for SINAUT ST7 protocol</li> </ul>	4
<b>performance data / teleservice</b>	
diagnostics function / online diagnostics with SIMATIC STEP 7	Yes
product function	
<ul style="list-style-type: none"> <li>• program download with SIMATIC STEP 7</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• remote firmware update</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• remote configuration</li> </ul>	Yes
<b>product functions / management, configuration, engineering</b>	
product function / MIB support	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v3</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• LLDP</li> </ul>	Yes
configuration software	
<ul style="list-style-type: none"> <li>• required</li> </ul>	STEP 7 Professional V14 SP1 (TIA Portal) or higher
<ul style="list-style-type: none"> <li>• for CPU configuring / required / SINAUT TD7 block library for CPU</li> </ul>	No
<ul style="list-style-type: none"> <li>• for PG configuring / required / SINAUT ST7 configuration software for PG</li> </ul>	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"> <li>• I&amp;M0 - device-specific information</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• I&amp;M1 - higher level designation/location designation</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• I&amp;M2 - installation date</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• I&amp;M3 - comment</li> </ul>	Yes
<b>product functions / diagnostics</b>	
product function / web-based diagnostics	Yes
<b>product functions / routing</b>	
service / routing / note	IP routing up to 1 Mbps
product function	
<ul style="list-style-type: none"> <li>• static IP routing</li> </ul>	Yes

<ul style="list-style-type: none"> <li>• static IP routing IPv6</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• dynamic IP routing</li> </ul>	No
<ul style="list-style-type: none"> <li>• dynamic IP routing IPv6</li> </ul>	No
protocol / is supported	
<ul style="list-style-type: none"> <li>• RIP v1</li> </ul>	No
<ul style="list-style-type: none"> <li>• RIPv2</li> </ul>	No
<ul style="list-style-type: none"> <li>• RIPnG for IPv6</li> </ul>	No
<ul style="list-style-type: none"> <li>• OSPFv2</li> </ul>	No
<ul style="list-style-type: none"> <li>• OSPFv3 for IPv6</li> </ul>	No
<ul style="list-style-type: none"> <li>• VRRP</li> </ul>	No
<ul style="list-style-type: none"> <li>• VRRP for IPv6</li> </ul>	No
<ul style="list-style-type: none"> <li>• BGP</li> </ul>	No
<ul style="list-style-type: none"> <li>• PPP</li> </ul>	No
<ul style="list-style-type: none"> <li>• PPOE via DSL</li> </ul>	No

#### product functions / security

product function	
<ul style="list-style-type: none"> <li>• MSC client via GPRS modem with MSC capability</li> </ul>	Yes
protocol	
<ul style="list-style-type: none"> <li>• is supported / MSC protocol</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• with Virtual Private Network MSC / is supported</li> </ul>	TCP/IP
key length / for MSC / with Virtual Private Network	128 bit
number of possible connections	
<ul style="list-style-type: none"> <li>• as MSC client / with VPN connection</li> </ul>	1
<ul style="list-style-type: none"> <li>• as MSC server / with VPN connection</li> </ul>	127

#### product functions / time

product function / SICLOCK support	No
product function / pass on time synchronization	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• NTP (secure)</li> </ul>	Yes
product component / hardware real time clock	No
product feature / hardware real time clock w. battery backup	No
time synchronization	
<ul style="list-style-type: none"> <li>• from NTP-server</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• from GPS-signal</li> </ul>	No
<ul style="list-style-type: none"> <li>• from control center</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• from mobile network provider</li> </ul>	No
<ul style="list-style-type: none"> <li>• PC</li> </ul>	No
<ul style="list-style-type: none"> <li>• manual setting</li> </ul>	No

#### product functions / position detection

product function	
<ul style="list-style-type: none"> <li>• position detection with GPS</li> </ul>	No
<ul style="list-style-type: none"> <li>• pass on position data</li> </ul>	No

#### standards, specifications, approvals

reference code	
<ul style="list-style-type: none"> <li>• according to IEC 81346-2:2019</li> </ul>	KEC

#### further information / internet links

internet link	
<ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> </ul>	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
<ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> </ul>	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
<ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>	<a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>• to web page: SiePortal</li> </ul>	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
<ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>	<a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>
<ul style="list-style-type: none"> <li>• to website: CAX-Download-Manager</li> </ul>	<a href="https://siemens.com/cax">https://siemens.com/cax</a>
<ul style="list-style-type: none"> <li>• to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

#### security information

security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible
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## Approvals / Certificates

### General Product Approval

### EMV



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### For use in hazardous locations

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