

product type designation



TIM 1531 IRC

TIM 1531 IRC Communications module for SIMATIC S7-1500, S7-400, S7-300 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 communications via classic wide area networks.

transfer rate

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

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 for power supply 	<p>1</p> <p>1</p>
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 for power supply 	<p>9 pin Sub-D-connector, RS232 switchable to RS485</p> <p>2-pole plugable terminal block</p>
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 from external supply voltage / at DC / at 24 V / maximum 	<p>0.15 A</p> <p>0.3 A</p>
power loss [W] / with external supply voltage / at 24 V DC	
<ul style="list-style-type: none"> in update mode / typical in communication mode / typical 	<p>3.9 W</p> <p>3.9 W</p>
product extension / optional / backup battery	No

ambient conditions

ambient temperature	
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<ul style="list-style-type: none"> during operation for vertical installation / during operation for horizontally arranged busbars / during operation during storage during transport 	<p>0 ... 70 °C</p> <p>0 ... 50 °C</p> <p>0 ... 70 °C</p> <p>-40 ... +70 °C</p> <p>-40 ... +70 °C</p>
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 top hat DIN rail mounting S7-300 rail mounting S7-1500 rail mounting 	<p>No</p> <p>No</p> <p>Yes</p>

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 	<p>6 m</p> <p>30 m</p>

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 	<p>132; only via LAN</p> <p>4</p> <p>4</p> <p>4</p>
service <ul style="list-style-type: none"> of SIMATIC communication / as server SINAUT ST7 via S7 communication PG/OP communication 	<p>Yes</p> <p>Yes</p> <p>Yes</p>

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 	<p>2</p> <p>2; 2 per Ethernet interface</p> <p>1</p>
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performance data / telecontrol

suitability for use <ul style="list-style-type: none"> node station substation TIM control center 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
control center connection <ul style="list-style-type: none"> by means of a permanent connection 	<p>Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol</p> <p>Systems with ST7, DNP3 and IEC 60870-5-101/104 protocol</p>
protocol / is supported <ul style="list-style-type: none"> DNP3 IEC 60870-5 SINAUT ST1 protocol SINAUT ST7 protocol Modbus RTU 	<p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p>
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 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 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 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 	Yes
<ul style="list-style-type: none"> • with Virtual Private Network MSC / is supported 	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 	1
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • NTP 	Yes
<ul style="list-style-type: none"> • NTP (secure) 	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"> • from NTP-server 	Yes
<ul style="list-style-type: none"> • from GPS-signal 	No
<ul style="list-style-type: none"> • from control center 	Yes
<ul style="list-style-type: none"> • from mobile network provider 	No
<ul style="list-style-type: none"> • PC 	No
<ul style="list-style-type: none"> • manual setting 	No
product functions / position detection	
product function	
<ul style="list-style-type: none"> • position detection with GPS 	No
<ul style="list-style-type: none"> • pass on position data 	No
standards, specifications, approvals / hazardous environments	
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
further information / internet-Links	
Internet-Link	
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool 	http://www.siemens.com/tia-selection-tool
<ul style="list-style-type: none"> • to website: Industrial communication 	http://www.siemens.com/simatic-net
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to website: Information and Download Center 	http://www.siemens.com/industry/infocenter
<ul style="list-style-type: none"> • to website: Image database 	http://automation.siemens.com/bilddb
<ul style="list-style-type: none"> • to website: CAx-Download-Manager 	http://www.siemens.com/cax
<ul style="list-style-type: none"> • to website: Industry Online Support 	https://support.industry.siemens.com
security information	
security information	Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action(e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit http://www.siemens.com/industrialsecurity . To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit http://support.automation.siemens.com . (V3.4)

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