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Data sheet 6GK7543-1MX00-0XE0

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 a RS 232/RS 485 interface for communication via classic WAN networks



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	
• at interface 1 / for external data transmission	9 pin Sub-D-connector, RS232 switchable to RS485

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• 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	
ambient temperature	
• during operation	0 ... 70 °C
• for vertical installation / during operation	0 ... 50 °C
• for horizontally arranged busbars / during operation	0 ... 70 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
relative humidity	
• 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	
• 35 mm top hat DIN rail mounting	No
• S7-300 rail mounting	No
• S7-1500 rail mounting	Yes

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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
• 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 station / maximum	3000
number of DNP3 masters	

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• 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 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	
• 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

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• 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: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx-Download-Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

security information

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