



Figure similar

SINAUT ST7, TIM 4R-IE COMMUNICATIONS MODULE FOR SIMATIC S7-300, S7-400, C7, PC; WITH TWO RS232/RS485 INTERFACES FOR SINAUT COMMUNICATION VIA CLASSIC WAN NETWORKS AND TWO RJ45-INTERFACES FOR SINAUT COMMUNICATION VIA IP-BASED NETWORKS (WAN OR LAN)

Transmission rate	
Transfer rate	
<ul style="list-style-type: none"> <li>for Industrial Ethernet</li> </ul>	10 ... 100 Mbit/s
<ul style="list-style-type: none"> <li>acc. to RS 232</li> </ul>	50 ... 38400 bit/s
Interfaces	
Number of interfaces / acc. to Industrial Ethernet	2
Number of electrical connections	
<ul style="list-style-type: none"> <li>for external data transmission / acc. to RS 232</li> </ul>	2
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	1
Type of electrical connection	
<ul style="list-style-type: none"> <li>of Industrial Ethernet interface</li> </ul>	RJ45 port
<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>at interface 2 / for external data transmission</li> </ul>	9-pole D-sub connector, RS232 can be switched to RS485
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	2-pole plugable terminal block
design of the removable storage / C-PLUG	Yes
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
Consumed current	
<ul style="list-style-type: none"> <li>from backplane bus / for DC / at 24 V / maximum</li> </ul>	0.2 A
<ul style="list-style-type: none"> <li>from external supply voltage / for DC / at 24 V / maximum</li> </ul>	0.17 A

Active power loss	4.6 W
Product expansion / optional / Backup battery	Yes
Type of battery	Lithium AA / 3.6 V / 2.3 Ah
Backup current	
• typical	100 µA
• maximum	160 µA

### Permitted ambient conditions

Ambient temperature	
• during operation	0 ... 60 °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 weight

Module format	Compact module S7-300 double width
Width	80 mm
Height	125 mm
Depth	120 mm
Net weight	0.4 kg

### Product properties, functions, components / general

Number of units	
• Note	Number of TIM 4R-IE per S7-300/S7-400: multiple, number depends on the connection resources of the CPU
Cable 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	64
• with PG connections / maximum	2
• with OP connections / maximum	62
Service	
• SINAUT ST7 via S7 communication	Yes
• PG/OP communication	Yes

### Performance data / multi-protocol mode

Number of active connections / with multi-protocol mode	128
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### Performance data / telecontrol

Suitability for use	
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<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
Protocol / is supported	
<ul style="list-style-type: none"> <li>• TCP/IP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DNP3</li> </ul>	No
<ul style="list-style-type: none"> <li>• SINAUT ST1 protocol</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SINAUT ST7 protocol</li> </ul>	Yes
Product function / data buffering if connection is aborted	Yes
<ul style="list-style-type: none"> <li>• Note</li> </ul>	56,000 data messages
Storage capacity	
<ul style="list-style-type: none"> <li>• of S7 CPU RAM / for TD7onCPU mode data blocks on CPU / required</li> </ul>	20 Kibyte
<ul style="list-style-type: none"> <li>• of S7 CPU RAM / for TD7onTIM mode data blocks on TIM / required</li> </ul>	0 Kibyte
<ul style="list-style-type: none"> <li>• Note</li> </ul>	TD7onCPU: at least 20 KB, actual requirement determined by data volume and functional scope TD7onTIM: 0 bytes in most favorable case
Product property / Buffered message frame memory	Yes
Transmission format	
<ul style="list-style-type: none"> <li>• for SINAUT ST1 protocol with polling / 11 bit</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• for SINAUT ST1 protocol with spontaneous / 10-bit or 11-bit</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• for SINAUT ST7 protocol with multi-master polling / 10-bit</li> </ul>	Yes
<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 ST1 protocol</li> </ul>	Polling, polling with time slot procedure
<ul style="list-style-type: none"> <li>• with dedicated line/radio link / with SINAUT ST7 protocol</li> </ul>	Polling, polling with time slot procedure, multi-master polling with time slot procedure
<ul style="list-style-type: none"> <li>• with dial-up network / with SINAUT ST1 protocol</li> </ul>	spontaneous
<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 ST1 protocol</li> </ul>	4
<ul style="list-style-type: none"> <li>• for SINAUT ST7 protocol</li> </ul>	4
<b>Product functions / management, configuration</b>	
Configuration software	
<ul style="list-style-type: none"> <li>• required</li> </ul>	SINAUT ST7 ES

<ul style="list-style-type: none"> <li>• for CPU configuring / required / SINAUT TD7 block library for CPU</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• for PG configuring / required / SINAUT ST7 configuration software for PG</li> </ul>	Yes
Storage location / of TIM configuration data	On internal TIM flash memory, or on TIM in optional C-PLUG, or on MMC of the S7-300 CPU if TIM installed in S7-300 controller

#### Product functions / Security

Suitability for operation / Virtual Private Network	Yes
Type of authentication / with Virtual Private Network / PSK	Yes
Product function	<ul style="list-style-type: none"> <li>• password protection for VPN</li> <li>• MSC client via GPRS modem with MSC capability</li> </ul>
Protocol	<ul style="list-style-type: none"> <li>• is supported / MSC protocol</li> <li>• with Virtual Private Network MSC / is supported</li> </ul>
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> <li>• as MSC server / with VPN connection</li> </ul>

#### Product functions / Time

Product component / Hardware real-time clock	Yes
Product property / Hardware real-time clock w. battery backup	Yes
Accuracy / of the hardware real-time clock / per day / maximum	4 s
time synchronization	<ul style="list-style-type: none"> <li>• from NTP-server</li> </ul>

#### Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET SELECTION TOOL</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Image database</li> <li>• to website: CAx Download Manager</li> <li>• to website: Industry Online Support</li> </ul>	<ul style="list-style-type: none"> <li><a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a></li> <li><a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a></li> <li><a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a></li> <li><a href="http://www.siemens.com/automation/net/catalog">http://www.siemens.com/automation/net/catalog</a></li> <li><a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a></li> <li><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a></li> <li><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a></li> </ul>

#### Security information

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Security information

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