SIEMENS

Data sheet	6AG1800-4BA00-7AA0

Product type designation

PLUS SINAUT ST7, TIM 4R-IE

SIPLUS ST7 TIM 4R-IE -25...+70 °C with conformal coating based on 6NH7800-4BA00 . communication module for SIMATIC S7-300, S7-400, C7, PC with two RS232/RS485 interfaces for SINAUT Communications via classic WANs and two RJ45 interfaces for SINAUT communication via IP-based networks (WAN or LAN)

Transmission rate	
Transfer rate	
• for Industrial Ethernet	10 ... 100 Mbit/s
• acc. to RS 232	50 ... 38400 bit/s

Interfaces	
Number of interfaces / acc. to Industrial Ethernet	2
Number of electrical connections	
• for external data transmission / acc. to RS 232	2
• for power supply	1
Type of electrical connection	
• of Industrial Ethernet interface	RJ45 port
• at interface 1 / for external data transmission	9 pin Sub-D-connector, RS232 switchable to RS485
• at interface 2 / for external data transmission	9-pole D-sub connector, RS232 can be switched to RS485
• for power supply	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
Supply voltage / external / at DC / Rated value	24 V
Supply voltage / external / at DC / rated value	20.4 ... 28.8 V
Consumed current	
• from backplane bus / at DC / at 24 V / maximum	0.2 A
• from external supply voltage / at DC / at 24 V / maximum	0.17 A
Power loss [W]	4.6 W
Product extension / 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	-25 ... +70 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
Ambient condition / relating to ambient temperature - air pressure - installation altitude	-25 ... +70°C at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // -25 ... +60°C at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // -25 ... +50°C at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity / with condensation / maximum	100 %; r.F., incl. condensation/frost permitted (no commissioning in bedewed state)
Resistance to biologically active substances	
• conformity acc. to EN 60721-3-3	Yes; Compliance with EN 60721-3-3, Class 3B2 mold, fungus, and sponge spores (except fauna). The supplied plug covers must remain in place over the unused interfaces during operation!
Resistance to chemically active substances	
• conformity acc. to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3). The supplied plug covers must remain in place over the unused interfaces during operation!
Resistance to mechanically active substances	
• conformity acc. 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!
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

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Product properties, functions, components / general

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	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

Performance data / telecontrol

Suitability for use	
• Node station	Yes
• substation	Yes
• TIM control center	Yes
Protocol / is supported	
• SINAUT ST1 protocol	Yes
• SINAUT ST7 protocol	Yes
Storage capacity	
• Note	TD7onCPU: at least 20 KB, actual requirement determined by data volume and functional scope TD7onTIM: 0 bytes in most favorable case
Product feature / Buffered message frame memory	Yes
Transmission format	
• for SINAUT ST1 protocol with polling / 11 bit	Yes
• for SINAUT ST1 protocol with spontaneous / 10-bit or 11-bit	Yes
• for SINAUT ST7 protocol with multi-master polling / 10-bit	Yes
• 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 ST1 protocol	Polling, polling with time slot procedure
• with dedicated line/radio link / with SINAUT ST7 protocol	Polling, polling with time slot procedure, multi-master polling with time slot procedure

• with dial-up network / with SINAUT ST1 protocol	spontaneous
• with dial-up network / with SINAUT ST7 protocol	spontaneous
Hamming distance	
• for SINAUT ST1 protocol	4
• for SINAUT ST7 protocol	4
Configuration software	
• required	SINAUT ST7 ES
• for CPU configuring / required / SINAUT TD7 block library for CPU	Yes
• for PG configuring / required / SINAUT ST7 configuration software for PG	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
Protocol	
• with Virtual Private Network MSC / is supported	TCP/IP

Product functions / Time

Product component / Hardware real-time clock	Yes
Product feature / Hardware real-time clock w. battery backup	Yes
Accuracy / of the hardware real-time clock / per day / maximum	4 s

Further Information / Internet Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	http://www.siemens.com/industrial-controls/mall
• to website: Information and Download Center	http://www.siemens.com/automation/net/catalog
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	http://support.automation.siemens.com

Security information

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