

SIPLUS S7-1500 CM PTP RS232 HF based on 6ES7541-1AD01-0AB0 with conformal coating, -40...+70 °C HF communications module for serial connection RS-232, Freeport, 3964(R), USS, Modbus RTU master, device, 115200 bps, 9-pin D-sub plug 115200 bps, 9-pin D-sub plug

General information	
Product type designation	CM PTP RS 232 HF
based on	6ES7541-1AD01-0AB0
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M 0
<ul style="list-style-type: none"> Fast startup 	Yes
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	see entry ID: 109746275
Installation type/mounting	
Rail mounting	Yes; S7-1500 mounting rail
Supply voltage	
Design of the power supply	system power supply
Input current	
Current consumption (rated value)	50 mA; From the backplane bus
Power	
Power consumption from the backplane bus	0.75 W
Power loss	
Power loss, typ.	0.6 W
Address area	
Address space per module	
<ul style="list-style-type: none"> Inputs 	8 byte; performance mode: 32 byte
<ul style="list-style-type: none"> Outputs 	0 byte; performance mode: 32 byte
Interface types	
RS 232	
<ul style="list-style-type: none"> Transmission rate, max. 	115.2 kbit/s
<ul style="list-style-type: none"> Cable length, max. 	15 m
<ul style="list-style-type: none"> RS 232 auxiliary signals 	RTS, CTS, DTR, DSR, RI, DCD
Protocols	
Integrated protocols	
Freeport	
— Telegram length, max.	4 kbyte
— Bits per character	7 or 8
— Number of stop bits	1 or 2 bit
— Parity	None, even, odd, always 1, always 0, any
3964 (R)	
— Telegram length, max.	4 kbyte
— Bits per character	7 or 8
— Number of stop bits	1 or 2 bit
— Parity	None, even, odd, always 1, always 0, any
Modbus RTU master	
— Address area	1 to 247, extended 1 to 65535
— max. number of devices	1
protocols / Modbus RTU device / header	
— Address area	1 to 247, extended 1 to 65535
Telegram buffer	
<ul style="list-style-type: none"> Buffer memory for telegrams 	8 kbyte
<ul style="list-style-type: none"> Number of telegrams which can be buffered 	255
Interrupts/diagnostics/status information	
Diagnostics function	Yes

Alarms	
• Diagnostic alarm	Yes
• Hardware interrupt	No
Diagnoses	
• Wire-break	Yes
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
• Receive RxD	Yes; Yellow LED
• Transmit TxD	Yes; Yellow LED
Potential separation	
between backplane bus and interface	Yes
Isolation	
Isolation tested with	707 V DC (type test)
product functions / security / header	
signed firmware update	Yes
Ambient conditions	
Ambient temperature during operation	
• horizontal installation, min.	-40 °C; = Tmin (incl. condensation/frost)
• horizontal installation, max.	70 °C; = Tmax
• vertical installation, min.	-40 °C; = Tmin
• vertical installation, max.	40 °C; = Tmax
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-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	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
Resistance	
Coolants and lubricants	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A

Decentralized operation	
to SIMATIC S7-300	Yes
to SIMATIC S7-400	Yes
to SIMATIC S7-1500	Yes
to standard PROFINET controller	Yes
Dimensions	
Width	35 mm
Height	147 mm
Depth	127 mm
Weights	
Weight, approx.	0.22 kg
Classifications	

	Version	Classification
eClass	14	27-24-22-08
eClass	12	27-24-22-08
eClass	9.1	27-24-22-08
eClass	9	27-24-22-08
eClass	8	27-24-22-08
eClass	7.1	27-24-22-08
eClass	6	27-24-22-08
ETIM	10	EC001423
ETIM	9	EC001423
ETIM	8	EC001423
ETIM	7	EC001423

Approvals / Certificates	
General Product Approval	

[Manufacturer Declaration](#)



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