

SIPLUS S7-1500 CM PtP RS232 HF TX RAIL with conformal coating
 BasedOn: 6ES7541-1AD00-0AB0 -40...70°C (Tx with 85°C for 10 min) . HF Communicationmodul for SERIAL CONNECTION RS232, FREEPORT, 3964(R), USS, MODBUS RTU MASTER, SLAVE, 115200 KBIT/S, 9-PIN SUB-D CONNECTOR

General information

Product type designation	CM PtP RS232 HF
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M 0

Installation type/mounting

Rail mounting	Yes; S7-1500 mounting rail
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Supply voltage

Type of supply voltage	system power supply
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Input current

Current consumption (rated value)	35 mA; From the backplane bus
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Power

Power available from the backplane bus	0.65 W
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Power loss

Power loss, typ.	0.6 W
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Address area

Occupied address area	
<ul style="list-style-type: none"> Inputs 	8 byte

Interface types

RS 232	
<ul style="list-style-type: none"> Transmission rate, max. Cable length, max. RS 232 auxiliary signals 	115.2 kbit/s 15 m RTS, CTS, DTR, DSR, RI, DCD

Protocols

Integrated protocols	
Freeport	
<ul style="list-style-type: none"> Telegram length, max. Bits per character Number of stop bits Parity 	4 kbyte 7 or 8 1 or 2 bit 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
— Number of slaves, max.	1
MODBUS RTU slave	
— Address area	1 to 247, extended 1 to 65535
Telegram buffer	
• Buffer memory for telegrams	8 kbyte
• Number of telegrams which can be buffered	255
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes
• Hardware interrupt	No
Diagnostic messages	
• 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) and according to EN 50155 (routine test)
Standards, approvals, certificates	
Railway application	
• EN 50121-3-2	Yes; EMC for rail vehicles
• EN 50121-4	Yes; EMC for signal and telecommunications systems
• EN 50124-1	Yes; Railway applications - overvoltage category OV2; pollution degree PD2; rated surge voltage UNi = 0.5 kV; UNm = 24 V DC
• EN 50125-1	Yes; Rail vehicles - see ambient conditions
• EN 50125-2	Yes; Stationary electrical equipment - see ambient conditions
• EN 50125-3	Yes; Signal and telecommunications systems - see ambient conditions; vibrations and shocks: Application point outside of tracks (1 m to 3 m away from track)
• EN 50155	Yes; Rail vehicles - temperature class Tx, horizontal mounting position, salt spray Class ST2

- EN 61373
- Fire protection acc. to EN 45545-2

Yes; Rail vehicles - vibrations and shocks: Category 1 Class A/B

Yes; Rail vehicles - verification on request

Ambient conditions

Ambient temperature during operation

- horizontal installation, min. -40 °C; = Tmin
- horizontal installation, max. 70 °C; = Tmax; +85 °C for 10 min (Tx acc. to EN 50155)

Altitude during operation relating to sea level

- Installation altitude above sea level, max. 2 000 m
- Ambient air temperature-barometric pressure-altitude Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)

Relative humidity

- With condensation, tested in accordance with IEC 60068-2-38, max. 100 %; RH incl. condensation/frost (no commissioning under condensation conditions)

Resistance

Coolants and lubricants

- Resistant to commercially available coolants and lubricants Yes

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 land craft, rail vehicles and special-purpose vehicles

- to biologically active substances according to EN 60721-3-5 Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna); Class 5B3 on request
- to chemically active substances according to EN 60721-3-5 Yes; Class 5C3 (RH < 75 %) incl. salt spray acc. to EN 50155 (ST2); *
- to mechanically active substances according to EN 60721-3-5 Yes; Class 5S3 incl. sand, dust; *

from supply voltage 1L+

- Note regarding classification of environmental conditions acc. to EN 60721 * The supplied plug covers must remain in place over the unused interfaces during operation!

Decentralized operation

to SIMATIC S7-300	Yes
to SIMATIC S7-400	Yes
to SIMATIC S7-1500	Yes
to standard PROFINET controller	Yes
Fast Startup supported	Yes

Dimensions

Width	35 mm
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Height	147 mm
Depth	127 mm
Weights	
Weight, approx.	0.22 kg
Other	
Note:	For use in railway applications, also observe the product information "SIPLUS extreme RAIL" A5E37661960A Online Support article 109736776
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