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Data sheet 6ES7541-1AB01-0AB0



SIMATIC S7-1500, CM PTP RS422/485 HF communications module for serial connection RS-422 and RS-485, freeport, 3964(R), USS, Modbus RTU master, device, 250000 bit/s, 15-pin D-sub socket

General information	
Product type designation	CM PtP RS 422 / 485 HF
HW functional status	02
Firmware version	V3.0.0
Product function	
● I&M data	Yes; I&M0 to I&M3
● Fast startup	Yes
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	V21.1; configurable with older TIA Portal versions as previous version
● STEP 7 configurable/integrated from version	V5.5 SP2 with GSD file
● PROFIBUS from GSD version/GSD revision	- / -
● PROFINET from GSD version/GSD revision	GSDML V2.42
Installation type/mounting	
Rail mounting	Yes; S7-1500 mounting rail
Input current	
Current consumption (rated value)	43 mA; From the backplane bus
Power	
Power consumption from the backplane bus	0.65 W
Power loss	
Power loss, typ.	0.6 W
Address area	
Address space per module	
● Inputs	8 byte; performance mode: 32 byte
● Outputs	0 byte; performance mode: 32 byte
Interface types	
RS 485	
● Transmission rate, max.	250 kbit/s
● Cable length, max.	1 200 m
RS 422	
● Transmission rate, max.	115.2 kbit/s
● Cable length, max.	1 200 m
● 4-wire full duplex connection	Yes
● 4-wire multipoint connection	No
Protocols	
Integrated protocols	
Freeport	
— Telegram length, max.	4 kbyte
— Bits per character	7 or 8
— Number of stop bits	1 or 2 bit

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— 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	32
Modbus RTU device	
— 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
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)
Security	
signed firmware update	Yes
data integrity	Yes; firmware V3.0.0 or higher
Ambient conditions	
Ambient temperature during operation	
● horizontal installation, min.	-30 °C
● horizontal installation, max.	60 °C
● vertical installation, min.	-30 °C
● vertical installation, max.	40 °C
Altitude during operation relating to sea level	
● Installation altitude above sea level, max.	5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual
Absolute humidity	
● dew point, min.	-60 °C; suitable for dry room applications
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	16	27-24-22-08

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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

Miscellaneous

General Product Approval | EMV | For use in hazardous locations

China RoHS

Manufacturer Declaration

FM

CCC-Ex

For use in hazardous locations | Maritime application

Type Examination Certificate

Miscellaneous

CCC-Ex

Maritime application

NK / Nippon Kaiji Kyokai

CCS (China Classification Society)

Maritime application | Environment

KR (Korean Register of Shipping)

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