SIEMENS

Data sheet

6ES7541-1AB00-0AB0



SIMATIC S7-1500, CM PTP RS422/485 HF Communication module for Serial connection RS422 and RS485, Freeport, 3964 (R), USS, MODBUS RTU Master, Slave, 115200 Kbit/s, 15-Pin D-sub socket

Figure similar

General information	
Product type designation	CM PtP RS 422 / 485 HF
Product function	
 I&M data 	Yes; I&M 0
Fast startup	Yes
Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V12 / V12
 STEP 7 configurable/integrated from version 	V5.5 SP2 with GSD file
 PROFIBUS from GSD version/GSD revision 	-/-
 PROFINET from GSD version/GSD revision 	V2.3 / -
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)	43 mA; From the backplane bus
Power	
Power available from the backplane bus	0.65 W
Power loss	
Power loss, typ.	0.6 W
Address area	
Address space per module	
• Inputs	8 byte
Interface types	
RS 485	
 Transmission rate, max. 	115.2 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

— Parity	None, even, odd, always 1, always 0, any
3964 (R)	None, even, odd, diways 1, diways 0, any
— 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	Hone, even, oud, always 1, always 0, any
— Address area	1 to 247, extended 1 to 65535
- Number of slaves, max.	32
MODBUS RTU slave	OL .
— Address area	1 to 247, extended 1 to 65535
Telegram buffer	1 to 241, extended 1 to 00000
Buffer memory for telegrams	8 kbyte
Number of telegrams which can be buffered	255
	200
Interrupts/diagnostics/status information	N/
Diagnostics function	Yes
Alarms	N/
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
	Yes
between backplane bus and interface	Yes 707 V DC (type test)
between backplane bus and interface Isolation	
between backplane bus and interface Isolation Isolation tested with	
between backplane bus and interface Isolation Isolation tested with Ambient conditions	
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation	707 V DC (type test)
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min.	707 V DC (type test) 0 °C
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max.	707 V DC (type test) 0 °C 60 °C
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min.	707 V DC (type test) 0 °C 60 °C 0 °C
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max.	707 V DC (type test) 0 °C 60 °C 0 °C
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max.	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual Yes Yes
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400 to SIMATIC S7-1500 to standard PROFINET controller	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual Yes Yes Yes Yes
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400 to SIMATIC S7-1500 to standard PROFINET controller Dimensions	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual Yes Yes Yes Yes Yes
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400 to SIMATIC S7-1500 to standard PROFINET controller Dimensions Width	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual Yes Yes Yes Yes Yes Yes
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400 to SIMATIC S7-1500 to standard PROFINET controller Dimensions Width Height	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual Yes Yes Yes Yes Yes Yes Yes Yes
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400 to SIMATIC S7-1500 to standard PROFINET controller Dimensions Width Height Depth	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual Yes Yes Yes Yes Yes Yes
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400 to SIMATIC S7-1500 to standard PROFINET controller Dimensions Width Height Depth Weights	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
between backplane bus and interface Isolation Isolation tested with Ambient conditions Ambient temperature during operation • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. Altitude during operation relating to sea level • Installation altitude above sea level, max. Decentralized operation to SIMATIC S7-300 to SIMATIC S7-400 to SIMATIC S7-1500 to standard PROFINET controller Dimensions Width Height Depth	707 V DC (type test) 0 °C 60 °C 0 °C 40 °C 5 000 m; restrictions for installation altitudes > 2 000 m, see ET 200MP system manual Yes Yes Yes Yes Yes Yes Yes Yes