

SIPLUS S7-1500 CM PTP RS422/485 BA based on 6ES7540-1AB01-0AA0 with conformal coating, -40...+70 °C RS422/485 BA communications module for serial connection RS-422 and RS-485 freeport, 3964(R), USS, 19200 bit/s, 15-pin D-sub socket 15-pin D-sub socket

General information	
Product type designation	CM PTP RS 422 / 485 BA
based on	<a href="#">6ES7540-1AB01-0AA0</a>
Product function	
<ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>	Yes; I&M 0
<ul style="list-style-type: none"> <li>Fast startup</li> </ul>	Yes
Engineering with	
<ul style="list-style-type: none"> <li>STEP 7 TIA Portal configurable/integrated from version</li> </ul>	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)	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	
<ul style="list-style-type: none"> <li>Inputs</li> </ul>	8 byte; performance mode: 32 byte
<ul style="list-style-type: none"> <li>Outputs</li> </ul>	0 byte; performance mode: 32 byte
Interface types	
RS 485	
<ul style="list-style-type: none"> <li>Transmission rate, max.</li> </ul>	19.2 kbit/s
<ul style="list-style-type: none"> <li>Cable length, max.</li> </ul>	1 200 m
RS 422	
<ul style="list-style-type: none"> <li>Transmission rate, max.</li> </ul>	19.2 kbit/s
<ul style="list-style-type: none"> <li>Cable length, max.</li> </ul>	1 200 m
<ul style="list-style-type: none"> <li>4-wire full duplex connection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>4-wire multipoint connection</li> </ul>	No
Protocols	
Integrated protocols	
Freeport	
— Telegram length, max.	1 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.	1 kbyte
— Bits per character	7 or 8
— Number of stop bits	1 or 2 bit
— Parity	None, even, odd, always 1, always 0, any
Telegram buffer	
<ul style="list-style-type: none"> <li>Buffer memory for telegrams</li> </ul>	2 kbyte
<ul style="list-style-type: none"> <li>Number of telegrams which can be buffered</li> </ul>	255
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	

• Diagnostic alarm	Yes
• Hardware interrupt	No
<b>Diagnoses</b>	
• Wire-break	Yes
<b>Diagnostics indication LED</b>	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
• Receive RxD	Yes; Yellow LED
• Transmit TxD	Yes; Yellow LED
<b>Potential separation</b>	
between backplane bus and interface	Yes
<b>Isolation</b>	
Isolation tested with	707 V DC (type test)
<b>product functions / security / header</b>	
signed firmware update	Yes
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• 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
<b>Altitude during operation relating to sea level</b>	
• 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)
<b>Relative humidity</b>	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
<b>Resistance</b>	
<b>Coolants and lubricants</b>	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
<b>Use in stationary industrial systems</b>	
— 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, *
<b>Use on ships/at sea</b>	
— 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; *
<b>Usage in industrial process technology</b>	
— 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)
<b>Remark</b>	
— 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!
<b>Conformal coating</b>	
• 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
<b>Decentralized operation</b>	

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
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#### 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	9	EC001423
ETIM	8	EC001423
ETIM	7	EC001423

#### Approvals / Certificates

##### General Product Approval

[Miscellaneous](#)

[Manufacturer Declaration](#)



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