

AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

Siemens 6ES7541-1AB00-0AB0

CM PtP RS422/485 HF communication module

[illegible]

INTERFACE	MAX. RATE	CONNECTOR	RECEIVE BUFFER
RS422 / RS485	115.2 kbit/s	15-pin D-sub	8 kbyte

Siemens 6ES7541-1AB00-0AB0 adds an isolated RS422/485 serial interface to SIMATIC S7-1500 or ET 200MP. It supports Freeport, 3964(R), Modbus RTU and USS through the documented STEP 7 instructions.

01 VERIFIED PRODUCT PARAMETERS

Electrical interface	Isolated RS422 / RS485 differential serial interface
Transmission rate	300 bit/s to 115.2 kbit/s
Cable length / rate	250 m at 115.2; 500 m at 38.4; 1200 m at up to 19.2 kbit/s
Connector	15-pin D-sub female connector with screw lock
Protocols	Freeport, 3964(R), Modbus RTU; USS via STEP 7 instructions
Maximum telegram length	4 kbyte for Freeport and 3964(R)
Receive buffer	8 kbyte; up to 255 telegrams
Address allocation	8 input bytes; no output address area required
Backplane power	0.65 W; typical module power loss 0.6 W
Operating temperature	Horizontal 0 to 60 deg C; vertical 0 to 40 deg C

Technical values were verified against Siemens A5E03790709-01, 01/2013 and the Siemens Industry Mall record for the exact article number.

02 MECHANICAL AND LIFECYCLE DATA

Dimensions (W x H x D)	35 x 147 x 127 mm
Weight (official manual)	Approx. 0.22 kg
Country of origin	Germany
Lifecycle	Spare part; Siemens successor: 6ES7541-1AB01-0AB0

03 SYSTEM ROLE AND APPLICATIONS

Use the module for engineered serial data exchange. Baud rate, cable length, pin assignment and protocol settings must match the connected equipment; the highest speed and longest cable cannot be combined.

- Serial process-data polling: exchange Modbus RTU registers with a configured communication partner.
- Drive parameter access: use USS instructions for drive control and parameter reading/writing.
- Custom telegram exchange: send and receive application-specific Freeport frames.

04 OFFICIAL INSTALLATION FACTS

- Qualified personnel must isolate station power and secure the machine before work.
- Seat the module and U connector on the S7-1500 mounting rail; check the station power budget.
- Use the official 15-pin X27 assignment; select two-wire RS485 or four-wire RS422 deliberately.
- Use shielded cable and connector casings. Connect GND pin 8 at both ends; never bond cable shield to GND.

05 OFFICIAL DOCUMENTATION

Siemens A5E03790709-01, 01/2013

AMIKON PRODUCT SUPPORT

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