MSB-RS485
RS422/485 Protocol Analyzer

RS485 Service Toolkit

Made for RS485

Don't miss anything when you are going to analyse RS422/485 connections!
All necessary tools in a small case and with a special price!





MSB-RS485 ☑ • ISO485 ☑ • CleverTerm ☑

The perfect tool collection

when analyzing RS422/485 field-bus applications. Simulating telegrams or sending data sequences with the help of the USB to RS422/485 converter and the enclosed CleverTerm field-bus terminal program.
Validating the correctness of requests or responses with the MSB-RS485 analyzer and detecting possible sources of errors.

MSB-RS485 Analyzer
The sophisticated MSB-RS485 analyzer not only samples all data, signals and bus-states of two half-duplex or one full-duplex connections with microsecond precision. With the help of its unique segment mode it can also act as an interface between two bus sections and detects the telegram sender or direction independent of the protocol.

ISO485 Converter
The ISO485 converter is equally appropriate for RS485 and RS422 bus systems and provides high protection by its isolating features.
Working on a RS485 bi-directional bus system the converter activates the bus when sending data and releases it again afterwards. This is handled completely transparent and automatic by the converter.

A modern designed case
keeps your tools safe wherever you are.

Run it on your favorite OS - It's your choice!
Supports Windows and Linux

In the box

MSB-RS485 serial analyzer set
- MSB-RS485 hardware box
- USB cable to connect the analyzer with PC
- Unique segment mode and sophisticated Protocol analysis.
- Lifelong software updates

Isolated USB to RS422/485 converter
- Converter with high isolating strength and automatic send activation
- Data rate above 460800 Baud, provides non-standard baud rates
- Externally selectable operating modes (full and half-duplex)
- Selectable termination resistors and echo mode
- Designed for more than 32 bus participants

CDROM with software and special tools
- Analyzer software, drivers, manuals for Windows and Linux
- CleverTerm software and extended Lua interpreter for use with ISO485

Two MSB-RS485 connection kits
- 4x 6-pin Phoenix screw connectors and special screw driver
- 9pin DSub jack with housing for soldering connection to external buses
- 8x bus termination resistors 120 Ω and 8x short wires



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Technical changes and improvements can be done without prior notice.

MSB-RS485
RS422/485 Protocol Analyzer

RS485 Service Toolkit
Technical Data & Content

Made for RS485

MSB-RS485 Analyzer

General	As an autonomous device the analyzer gathers exact information about every line change with 1µsec precision, independent from the PC and its operating system and mandatory for all time relevant protocols. In addition two independent and in-house developed FlexUARTs take over the task of data decoding.
Features	Direct sampling of all lines for exact measurement and analysis of the time relationship of all signals and data.
	Automatical recognition of baudrate and data format (data bits, parity)
	Detection of undriven/invalid signal levels and data format errors.
	Any baudrate from 1...1MBaud and 9 Bit data support.
	Various bus connections for RS422 and RS485 field-busses
	Bus splitting allows protocol independent telegram assignment
	Two multi-purpose AUX IO for additional inputs or triggering
	For more details see MSB-RS485 leaflet

USB to RS422/485 Converter

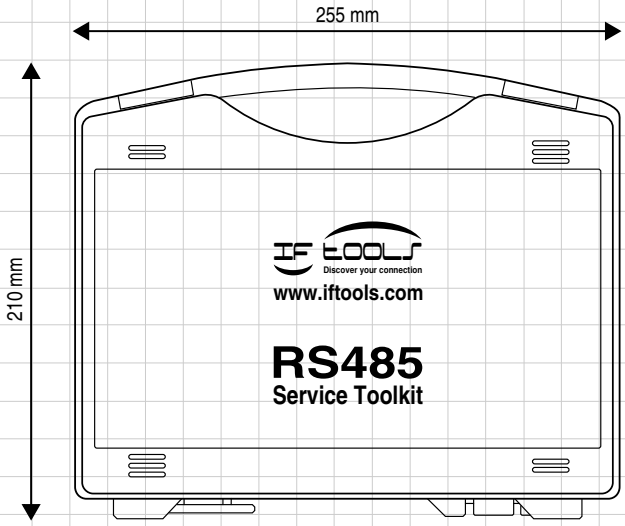
RS422/485 Signals	TxD, RxD according to the RS485 Standard, ±15kV ESD.
Isolation	High isolating strength 5000Vrms 1min, 250Vpk working Voltage.
Data rates	Baud rates from 300 to 460800 Baud, also unusual baud rates.
Protocol	Provides 5, 6, 7 or 8 Data Bits, 1 or 2 Stop Bits and Odd, Even, Mark, Space, None (no parity).
Operation modes	Externally selectable: RS422/485 Mode, Echo on/off, full/half duplex Bus, termination resistors of the send and receive lines can be activated independently.
Connectors	USB side: USB cable about 1m length with PC compatible type A connection jack and integrated inductance. RS422/485: Standard DSub9 Male Connector with undetachable UNC screw nuts.

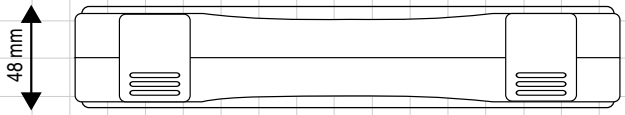
Bus connection kit

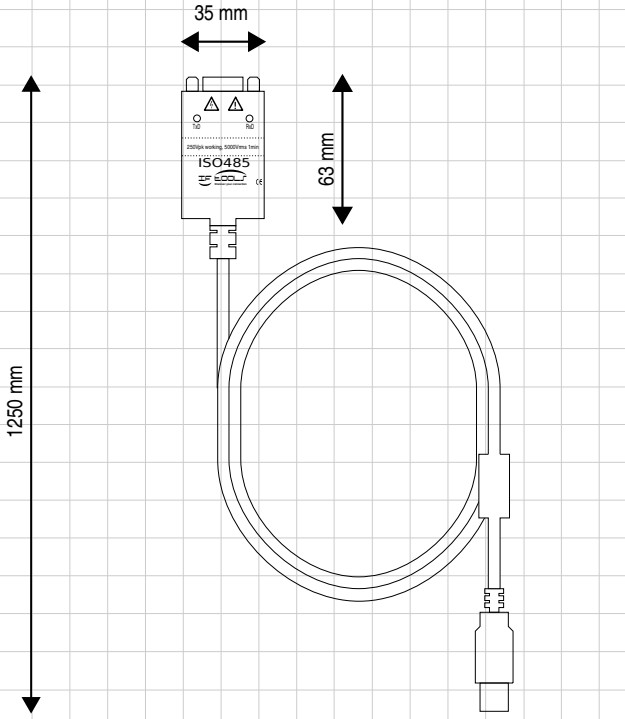
Screw connectors	Four 6-pin Phoenix screw connectors with screw driver to easily connect the analyzer with various bus systems.
Terminal resistors	Eight terminal resistors 120 Ohm each for a proper bus/device termination.
Short wires	For external operation mode selection and more (8 items).
9-pin DSub jack	A 9pin DSub jack with housing for soldering connection to external buses

Plastic case

Material	The case consists of strong and cold resistent Polypropylene (PP), one of the environmently friendliest plastics.
Locks & Hinges	Two functional clasp prevent your case opening inopportunely and sturdy hinges ensure high stability.
Dimension & weight	255 x 210 x 48 mm (B x H x D), weight about 640g with content.







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