

*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-PLUS** ✓ • **ISO485-BOX** ✓ • **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-PLUS analyzer and detecting possible sources of errors.

**MSB-RS485-PLUS Analyzer**

The sophisticated MSB-RS485-PLUS analyzer not only samples all data, signals and bus-states of two half-duplex or one full-duplex connections with 10 nanosecond 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-BOX Converter**

The ISO485-BOX converter is equally appropriate for RS485 and RS422 bus systems. It provides high protection by its isolating features and let you feed data into a RS422/485 bus system with up to 3 MBps. 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-PLUS serial analyzer set**

- MSB-RS485-PLUS fieldbus protocol analyzer
- Protocol templates for all common field-bus protocols
- Unique segment mode and sophisticated Protocol analysis.
- The ability to analyse both, synchronous and asynchronous systems
- Lifelong software updates and support

**Isolated ISO485-BOX USB to RS422/485 converter**

- Converter with high isolating strength and automatic send activation
- Data rate up to 3 MBps, provides non-standard bit 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-BOX converter

**Connection kit**

- 2x USB Cable to connect the analyzer and converter with your PC
- 4x 6-pin Phoenix screw connectors and screw driver for the bus

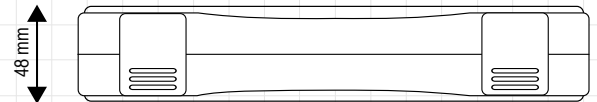
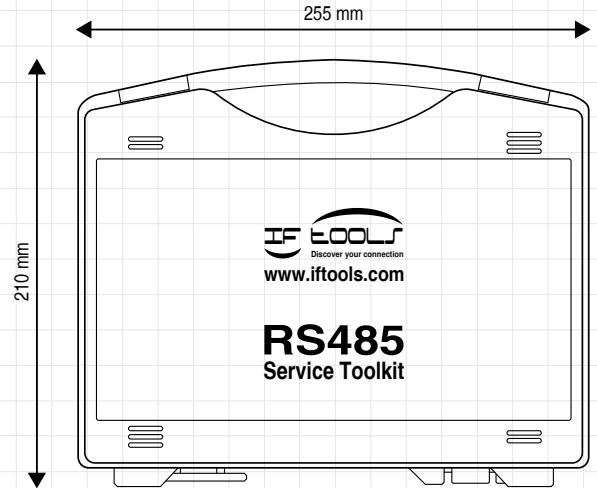


**MSB-RS485-PLUS Analyzer**

Bus Systems	Recording and analysis of asynchronous (all) and synchronous (Manchester, SSI) bus systems based on RS422/485 standard
Bit rates	High-precise setting and measuring of any bit rate from 1 bps to 20 Mbps with 0,1% precision
Asynchronous bus	5...9 Data bits, none, even, odd, mark, space parity, any stop bits
Synchronous bus	Manchester I, II, differential Manchester T0, T1 and SSI
Logical Linestates	Detection of the logical states (A-B): 1 (V+), 0 (V-), undriven tri-state (-0.7V < In < +0.7V).
Time resolution	10 nanoseconds (hardware based) for all data and line change events
Auto Data direction	Detection of data direction also with half-duplex (2-wire) systems, bus splitting for separate watching of certain bus participants
Signal levels	Standard RS422/485 Levels -7V to +12 V, ESD protected inputs 12kOhm, Common Mode ±7V. Detection of the Tri-State level of difference signals below ±0.7V
Bus connectors	Connector: 2x Phoenix MC 1,5/6ST-3,81 with 2mm screw connectors, 6 pins each. All connectors are linked through high speed and via software switchable RS485 buffers
Bus termination	120Ω bus termination individual switchable via software
Auxiliary In/Outputs	Two additional terminals individual switchable as input (0-5V, trigger level 1.65V, 10kΩ pull up or down) or output (configurable as auxiliary power 0/5V, ca. 10mA, data error or data frame signal).
Device-PC	Power supply (200mA) and data connection via USB 2.0 high speed



Click/scan for full leaflet  
**MSB-RS485-PLUS**

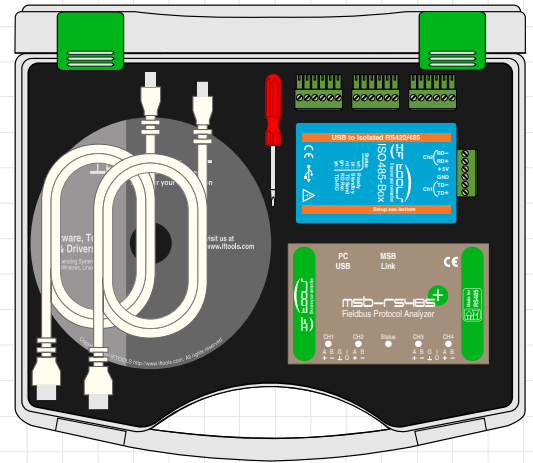


**ISO485-BOX USB to RS422/485 Converter**

RS422/485 Signals	TD, RD according to RS485 Standard, ±15kV ESD, ±5V difference voltage
Isolation	Isolation strength 2KVdc 1sec
Data rates	Bit rates 300 bps up to 1 Mbps, also non-standard bit rates. Additional support of the higher rates: 1.5 Mbps, 2 Mbps, 3 Mbps
Data format	All protocols with 5, 6, 7 or 8 Data bits, 1 or 2 Stop Bits and None, Even, Odd, Mark, Space Parity
Handshake	Feed back of the signals RTS/CTS and DTR/DSR in input and output for protocol simulation
Operation modes	External dip switches to easily setup all operation modes
Connectors	Bus side: 6 pin plug with screw terminal Phoenix MC156ST381
Auxiliary Voltage	Auxiliary secondary voltage output 5V/200mA to supply external devices or special bus terminations. Short-circuit proof, connected to the RS485 supply
PC connection	USB type B socket for PC connection and power supply, USB 1.1/2.0



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**ISO485-BOX**



**Accessories**

Screw connectors	Four 6-pin Phoenix screw connectors with screw driver to easily connect the analyzer and Converter with various bus systems
Software & Manual	CDROM with software, 400 page manual as pdf, Windows® driver and additional tools, laminated quickstart guide
USB cable	Two USB cable, 2m to connect analyzer and converter with PC

**Plastic case**

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

**Our Price: 579 € \***  
**Your advantage: ca. 60 €**  
 in comparison with the single components! \* Without tax