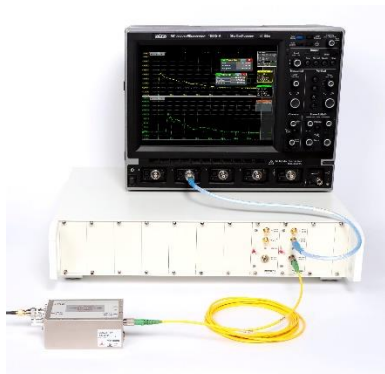


Optical transmission link 2 x DC-25 MHz



Montena MOL25T optical link is designed for the transmission of electric signals from DC to 25 MHz in harsh electromagnetic environment.

Application is for instance the transmission/monitoring of various signals of an equipment under test during EMC immunity tests, such as supply voltages, logic states, digital signals, relay status. It also makes an ideal oscilloscope front-end for the remote measurement of floating potentials in industrial applications and ensures a total galvanic insulation of the operator, for safe operation in high voltage areas.

Each transmission link has two signal channels. The two 1 M Ω BNC inputs enable connecting standard oscilloscope probes, differential probes or any specific measurement means.

The two input electric signals are conditioned, digitalized and multiplexed into one optical signal in the transmitter module and sent to the receiver module through a single mode fibre. The receiver module converts back the optical signal in two electric signals.

The battery powered optical transmitter comprises a remote-controlled attenuator stage (1:1 / 10:1 / 100:1) to adjust the received signal level for an optimal use of the dynamic range. The transmitter can remotely be put in a low power standby mode to reduce energy consumption when not used. A LED indicator shows the operating state.

Configurable settings are remote controlled by a Windows-based software application.

SYSTEM	SPECIFICATIONS
Type	MOL25T
Bandwidth	DC to 25 MHz
Flatness	± 1 dB (max)
Measurement ranges	1 / 10 / 100 Vp
Input impedance	1 M Ω
Output impedance	50 Ω
Instantaneous dynamic range	65 dB
A/D converters	12-bit
Sampling rate	75 MHz
Optical power in the fibre	1 mW (laser Class 1)
Maximum link distance	about 1 km



The compact optical transmitter is battery powered and especially shielded for a very high immunity to electromagnetic fields.

OPTICAL TRANSMITTER	SPECIFICATIONS
Type	MOL25T-TX
Number of channels per module	2
Input attenuator ratios	1:1 / 10:1 / 100:1, software selectable
Input impedance	1 MΩ/15 pF (max 20 pF)
Clamping voltage	1 Vp (1:1) 10 Vp (10:1) 100 Vp (100:1)
Max input voltage	250 Vp
Power supply	by internal LiPo batteries or by the power supply adapter
Battery autonomy	> 20 hours. Standby: > 1 week
RF input connectors	2 x BNC (F)
Optical connector	FC/APC
Operating temperature	-10 °C to +55 °C
Dimensions	99 x 64 x 41 mm (L x W x H), excluding the connectors
Weight	380 gr



The compact optical receiver for point-to-point application is battery powered and especially shielded for a very high immunity to electromagnetic fields. It has one USB interface for system configuration and supervision.

OPTICAL RECEIVER	SPECIFICATIONS
Type	MOL25T-RX (stand-alone module)
Number of channels per module	2
RF output connectors	2 x SMA (F)
Optical connector	FC/APC
Control connector	Mini-USB
Output noise floor	Typ. 300 μVrms
Maximum output dynamic	± 1.0 Vp (on 50 Ω load)
Power supply	by internal LiPo batteries or by the power supply adapter
Battery autonomy	> 20 hours. Standby: > 1 week
Operating temperature	-10 °C to +55 °C
Dimensions	99 x 64 x 41 mm (L x W x H), excluding the connectors
Weight	380 gr



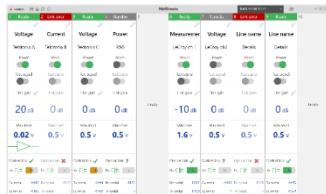
The compact optical receiver for multilink application is a plugin module. To be inserted in the MOL-MF-10 chassis.

OPTICAL RECEIVER	SPECIFICATIONS
Type	MOL25T-M-RX (plug-in module)
Number of channels per module	2
RF output connector	SMA (F) / 50 Ω
Optical connector	FC/APC
Control connector	USB on main frame chassis
Operating temperature	-10 °C to +55 °C



The multilink main frame is a 19", 2 HU chassis for up to ten RX modules. The receiver modules are powered and controlled from the chassis back plane.

MAIN FRAME	SPECIFICATIONS
Type	MOL-MF-10
Number of slots	10 slots for RX modules
Control connector	USB on main frame chassis
Operating temperature	-10 °C to +55 °C
Dimensions	448 x 356 x 110 mm (W x D x H),
Power rating	85 - 264 V, 47 - 65 Hz
Weight	About 5 kg



The system is delivered with the FibREmote software application, running on Windows PC.

The application allows simple configuration and monitoring of the MOL25T optical links.

The configuration can be stored and recalled at any time in order to ease the configuration of large test setup's.



The transmission link utilises single mode optical fibre with FC/APC connectors.



Ordering information

Multilink system

TYPE	DESCRIPTION
MOL-MF-10	Multilink mainframe for up to 10 optical links, 85 - 264 V, including a 10 slots chassis, one power supply cable, one USB cable, one Windows control software FibREmote, one carrying case for up to 10 transmitters with their battery chargers
MOL25T-M	2-channel optical link for multilink system MOL-MF-10, DC – 25 MHz, dual signals, including one optical transmitter MOL25T-TX on battery, one optical plug-in receiver module MOL25T-M-RX and one battery charger

Standalone point-to-point link

TYPE	DESCRIPTION
MOL25T	2-channel point-to-point optical link, DC – 25 MHz, including one optical transmitter MOL25T-TX on battery, one optical receiver MOL25T-RX on battery, two battery chargers, one Windows control software FibREmote and one carrying case

Fibre optic cables

TYPE	DESCRIPTION
FCLBxxx	Fibre optic cable, diameter: 3 mm xxx = the cable length Available lengths are 10, 20, 50, 100, 200, 500, 1000 m
FCLBxxx-RU	Rugged fibre optic cable, diameter: 7.5 mm xxx = the cable length Available lengths are 10, 20, 50, 100, 200, 500, 1000 m