



montena

Optical Link 80 Hz to 3.5 GHz



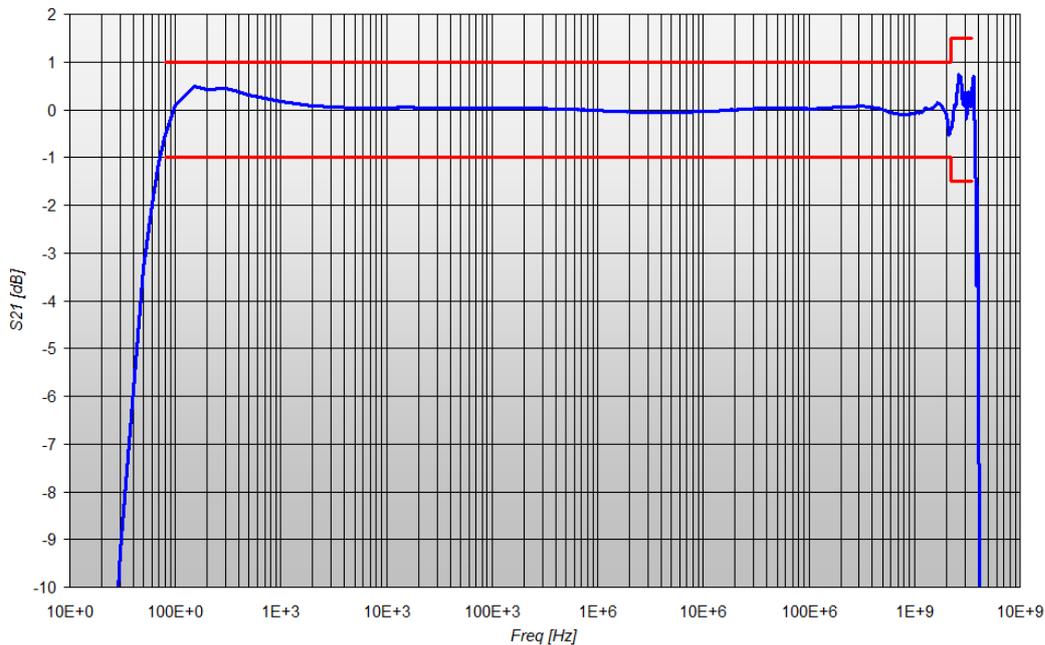
The optical link is designed for the transmission of analogue electric signals (CW and pulses) from 80 Hz to 3.5 GHz. The signal is conditioned and converted into an analogue optical signal in the transmitter module and is sent to the optical receiver through a fiber optic cable. The receiver module converts back the optical signal into an electrical signal. Both transmitter and receiver modules are shielded and are powered with embedded rechargeable batteries. The receiver includes an automatic gain control to maintain precise and constant performance. The optical link is typically used in measurement set-ups using electric or magnetic field sensors or with current probes.

SPECIFICATIONS

Type	MOL3000
Bandwidth (± 1.5 dB)	80 Hz to 3.5 GHz
Link gain	0 dB \pm 1.0 dB (80 Hz - 2.2 GHz) 0 dB \pm 1.5 dB (2.2 - 3.5 GHz)
Maximum transmitter input (for < 0.2 dB gain compression)	0 dBm (632 mV _{p-p})
Receiver output noise floor	< -137 dBm/Hz
Transmitter equivalent input noise	< -137 dBm/Hz
Immunity to external electric fields	> 500 kV/m (pulse according to MIL-Std 461 RS105 E/F/G)
Power supply	by internal battery LiPo 7.4V/2100mAh or by power supply adapter
Operating time (transmitter / receiver)	19 hours / standby: about 1 week
Operating temperature	5°C to 55°C
ESD protection	according to IEC61000-4-2 (15 kV)
Input / output connectors	SMA female
Dimensions (excluding connectors)	99 x 64 x 41 mm (L x W x H)
Weight (transmitter / receiver)	380 gr / 380 gr



FREQUENCY RESPONSE



MOL3000 frequency response

Fiber Optic cables

Version	Standard	Rugged (military)
Fibre type	single mode 9 / 125 µm	
Connectors	FC / APC	
Diameter (mm)	2.7	2 x 5.0
Outer jacket	Low smoke halogen free	Polyurethane
Installation tensile load (N)	400	1'800
Min. installation bending radius (mm)	50	50
Crush resistance (N/cm)	100	440
Impact resistance (impacts)	20	200
Maximum cabled attenuation (dB/km)	0.4	0.5
Operating temperature (°C)	- 10 to + 70	- 55 to + 85
Colour	yellow	black
Weight (kg/km)	7	21

Cable type	Reference	Length
Standard	FCLBxxxx ¹⁾	10, 20, 50, 100, 200, 500, 1000 m
Rugged	FCLBxxxxRU ¹⁾	10, 20, 50, 100, 200, 500, 1000 m

1) for ordering replace xxxx by one of the defined length