



montena

Optical Link 80 Hz to 3.5 GHz



The stand-alone system consists of: a transmitter, a receiver, a fibre optic cable and a charger for both units. 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 fibre 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. We also propose a version of the transmitter with an internal 26 dB low noise preamplifier. The optical link is typically used in measurement set-ups using electric or magnetic field sensors or with current probes. Differential measurement can be carried out with the balun BL3-5G.

SPECIFICATIONS

Type	MOL3000	MOL3000-26
Bandwidth (± 1.5 dB)	80 Hz to 3.5 GHz	80 Hz to 3.5 GHz
Link gain	0 dB ± 1.5 dB	26 dB ± 1.5 dB
Maximum transmitter input (for < 0.2 dB gain compression)	0 dBm (632 mV _{p-p})	- 26 dBm (31.7 mV _{p-p})
Receiver output noise floor	< -137 dBm/Hz	< -136 dBm/Hz
Transmitter equivalent input noise	< -137 dBm/Hz	< -162 dBm/Hz
Immunity to external electric fields	> 500 kV/m (pulse according to MIL-Std 461 RS105 E/F)	> 500 kV/m (pulse according to MIL-Std 461 RS105 E/F)
Operating time (transmitter / receiver)	50 hours / 19 hours	40 hours / 19 hours
Dimensions (excluding connectors)	99 x 64 x 41 mm (L x W x H)	99 x 64 x 41 mm (L x W x H)
Weight (transmitter / receiver)	350 gr / 350 gr	350 gr / 350 gr

Type	FCLB50 / FCLB200 / FCLB500
Fibre optic cable	single mode, standard length of 50 / 200 / 500 meters, FC/APC connectors (ruggedized version as an option)