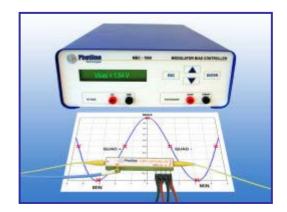
# MBC-LN Lithium Niobate Modulator Bias Controller



#### DESCRIPTION

Photline MBC are a family of bias controllers specially designed to stabilize the working point of LiNb03 Mach-Zehnder modulators. MBC controllers use digital signal processing based on an original FFT principle that allows to easily change the dithering frequency. The modulator working point can be locked at Min, Max, Quad+, Quad- or set manually so as to adapt to a wide variety of applications. MBC controllers are available as benchtop units and OEM boards.



### **FEATURES**

- Designed for LiNb03 modulators
- Min, Max, Quad+, Quad- or manual set point
- High sensitivity : < -30dBm
- Low dithering amplitude :  $<1\% V\pi$
- FFT principle allows easy change of dithering frequency from 300 Hz to 1.8 kHz

### **APPLICATIONS**

- Digital transmission : NRZ, RZ, ...
- Analog transmission
- Pulse generation
- Instrumentation

### **OPTIONS**

- Monitoring photodiode
- Benchtop instrument
- 100 mm x 160 mm OEM board

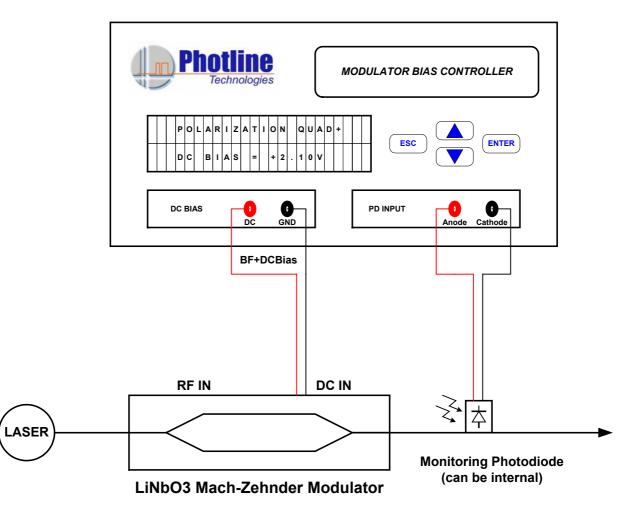




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#### WORKING CONFIGURATION





## MBC-LN Lithium Niobate Modulator Bias Controller



Electrical	
Working points	Quad +, Quad -, Min, Max, Manual
DC bias voltage range	-10 V to +10 V
Dither frequency	300 Hz to 1800 Hz (10 Hz steps)
Dither amplitude	50 mVp-p to 500 mVp-p (10 mV steps)
Display	Bias voltage
	Mode (Q+, Q-, Min, Max, Man)
	Dither frequency
	Dither amplitude
	Bias point hop*
Optical input power	
Interfaces	
Bias output	2 mm jack
Photodiode input	2 mm jack
Dimensions	
Case dimension	71 x 12 x 7 mm3
Weight	2.5 kg – 5 pounds
Power supply	110-240 V

\* in case bias voltage drifts out of range, MBC automatically search a new bias point and warns user of bias point hop by displaying an alarm message

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