

BCB-1



DEVICE

Modulator Bias Control Board, Four Bias Mode

OVERVIEW

The Optilab BCB-1 is a compact bias control board designed to maintain the linear operating point of optical intensity modulators. Featuring a compact miniature design for OEM integration, the BCB-1 allows for a stable Q+, Q-, Min and Max operation over long periods of time. With a USB 2.0 DC power and monitor interface standard, the BCB-1 unit is the ideal choice for industrial and OEM applications when paired with any of Optilab's wide variety of optical modulators, contact Optilab for more information.

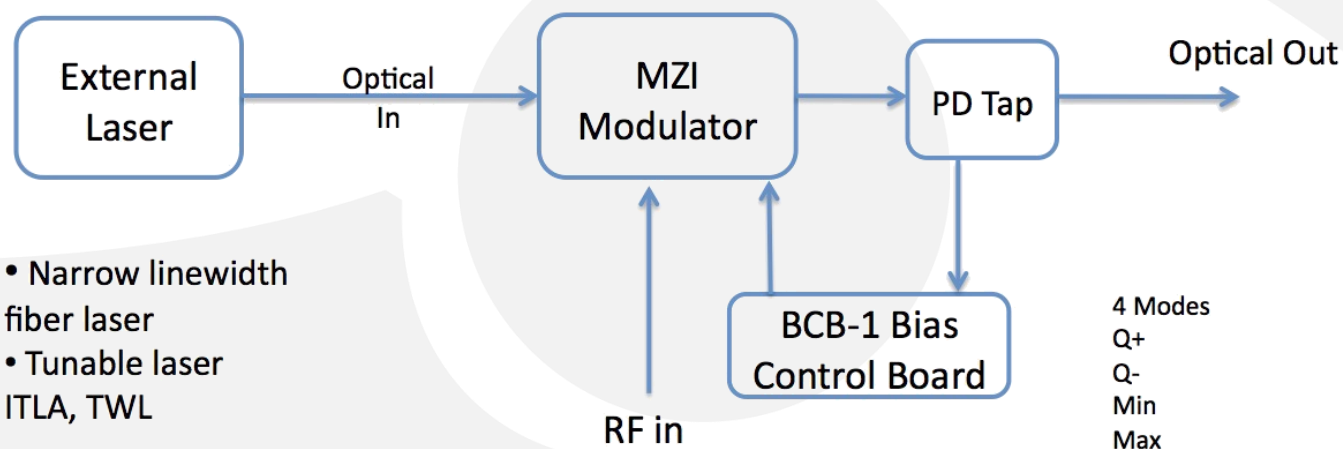
FEATURES

- Q+, Q-, Min., Max. bias setting modes
- Optional On-Board Photodiode
- USB 2 Interface for Power and Monitoring
- 4-Pin Connector for PD Current In, DC Bias Out
- Compatible with all MZI Optical Modulators

USE IN

- RF/IF Signal Distribution
- Satellite Communication
- Optical Communications
- Analog Lightwave Modulation
- Full Bandwidth RFoF Transmission

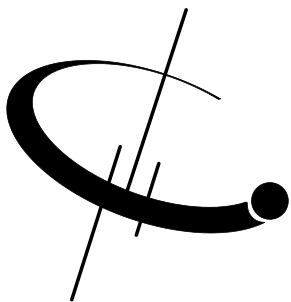
FUNCTIONAL DIAGRAM



- Narrow linewidth fiber laser
- Tunable laser ITLA, TWL

- 4 Modes
- Q+
- Q-
- Min
- Max





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SPECIFICATIONS

Modulator Type	Mach Zehnder Interferometer
Bias Control Principle	Small Signal Dithering
Bias Output Impedance	100 Ω
Bias Output Voltage	± 10 V
Modulator Voltage V_{PI} Range	3 - 8 V
Remote Monitor and Power	USB 2.0

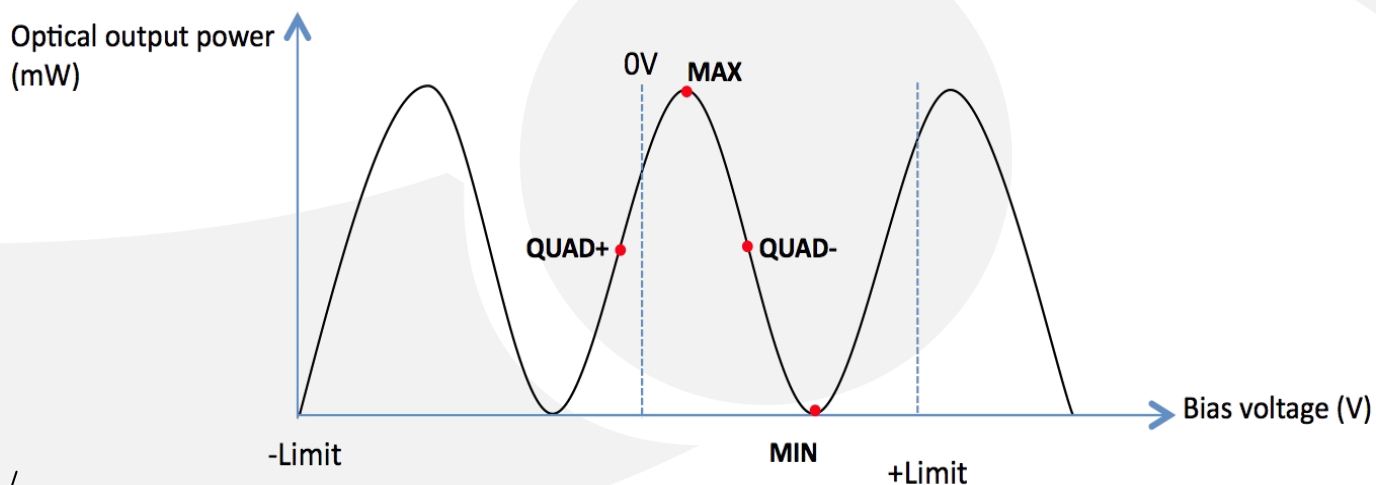
GENERAL

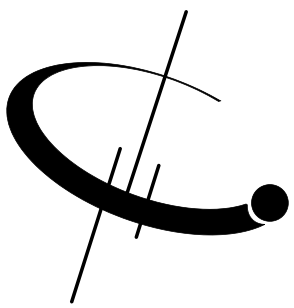
Operating Temperature	-10°C to +60°C
Storage Temperature	-60°C to +90°C
Power Supply Requirements	5 V, 100 mA typ.
Alarm	LED DC Power status
Dimensions	132 mm x 26 mm x 8 mm

MECHANICAL

BIAS CONTROL MODE

Mode	Operation Conditions	Modulation Format
Q+	Set to quadrature point of positive slope	Analog, NRZ
Q-	Set to quadrature point of negative slope	Analog, NRZ
Min.	Set to min. point of modulator curve	Pulse, RZ, BPSK
Max.	Set to max. point of modulator curve	Pulse, RZ





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MECHANICAL DRAWING

