

BCB-4



DEVICE

Modulator Bias Control Board, Four Bias Mode

OVERVIEW

The Optilab BCB-4 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-4 allows for a stable Q+, Q-, Min and Max operation over long periods of time. With a single +5V DC power and RS485 multi-addressing control and monitor interface, the BCB-4 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.

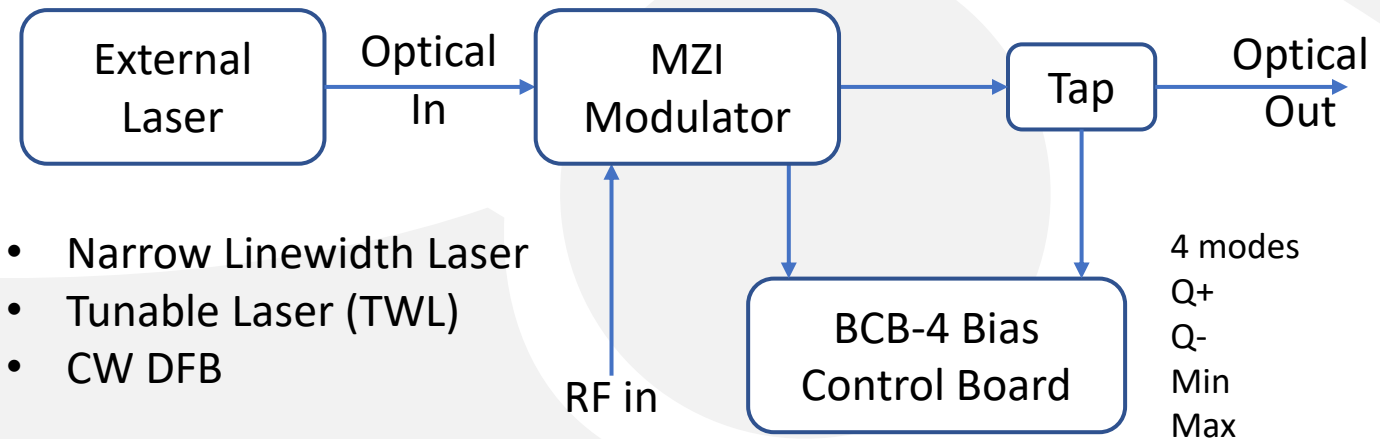
FEATURES

- Q+, Q-, Min., Max. bias setting modes
- On-Board Photodiode
- RS-485 Control
- Single +5V DC Power

USE IN

- RF/IF Signal Distribution
- Satellite Communication
- Optical Communications
- Bandwidth RFoF Transmission
- Picosecond Pulse Generation
- High Bandwidth RFoF Transmission
- Pulse picking/gating

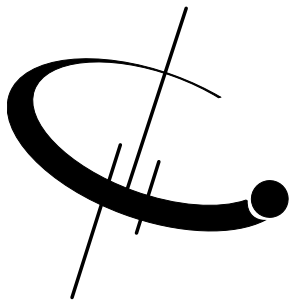
FUNCTIONAL DIAGRAM



- Narrow Linewidth Laser
- Tunable Laser (TWL)
- CW DFB

4 modes
Q+
Q-
Min
Max





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SPECIFICATIONS

Modulator Type	Mach Zehnder Interferometer
Bias Control Principle	Small Signal Dithering/Phase lock loop
Dither Frequency	1 kHz
Dither Amplitude	20 to 450 mVpp adjustable
Feedback Optical Power @ MAX	-20 to -5 dBm
Bias Output Voltage	± 10 V
Applicable Modulator Bias V_{PI}	3 - 8 V

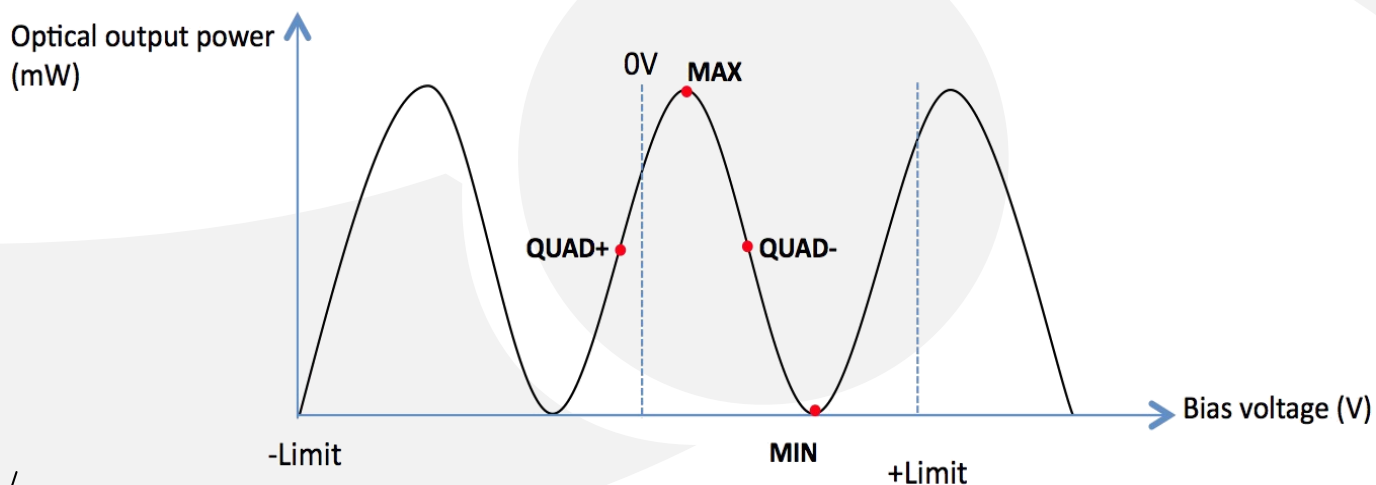
GENERAL

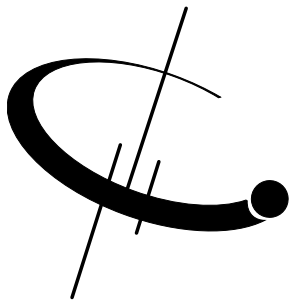
Operating Temperature	-10°C to +60°C
Storage Temperature	-60°C to +90°C
Power Supply Requirements	5 V, 100 mA typ.
Control Interface	RS-485
Alarm	LED DC Power status
Dimensions	85 mm x 27.5 mm x 17 mm

MECHANICAL

BIAS CONTROL MODE

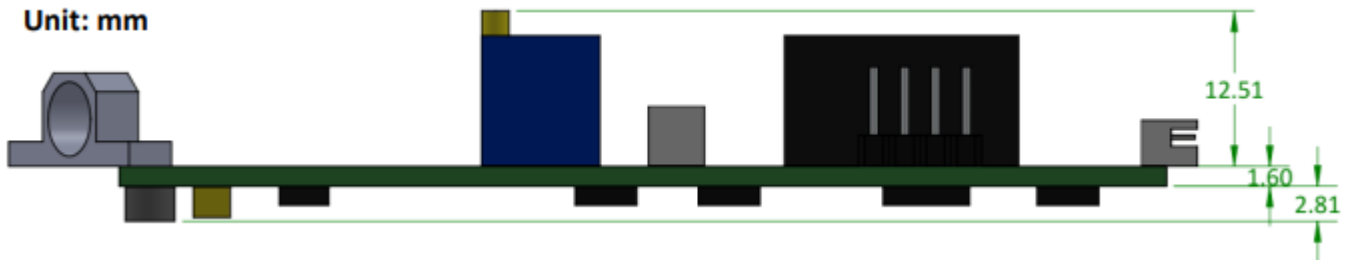
Mode	Operation Conditions	Modulation Format
Q+	Set to quadrature point of positive slope	Analog, NRZ
Q-	Set to quadrature point of negative slope	Analog, NRZ
Min.	Set to min. point of modulator curve	Pulse, RZ, BPSK
Max.	Set to max. point of modulator curve	Pulse, RZ





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MECHANICAL DRAWING



CONTROL AND PINOUT

