



# OZ Optics

shop.ozoptics.com  
www.ozoptics.com

219 Westbrook Road  
Ottawa, ON, Canada, K0A 1L0

Toll free: 1-800-361-5415  
Telephone: 1-613-831-0981  
Fax: 1-613-836-5089  
sales@ozoptics.com

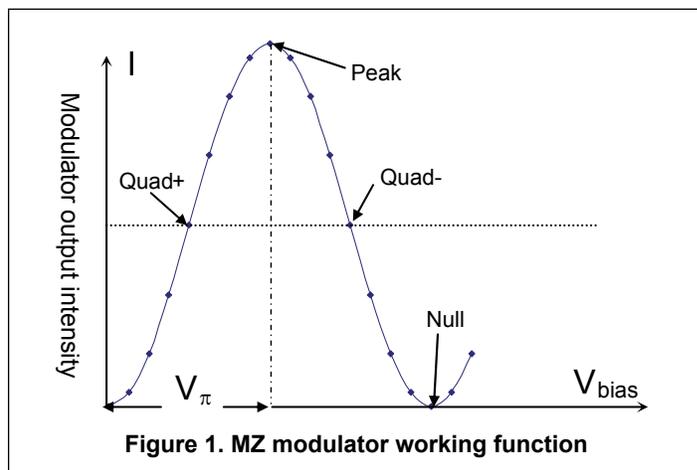
## MODULATOR BIAS CONTROLLER - FOR DUAL-DC-BIAS MODULATORS

### Features

- For Dual DC-Port Modulator to reach very high extinction ratio at null locking point
- Null locking mode only
- Two operation modes: calibration mode and locking mode
- Calibration off mode for quick system setup in locking mode
- Low profile (2.53" x 2.57" x 0.65")
- Access for external photo-detector
- Pulse mode for more precise null locking with pulse applications

### Product Description

The Dual Port Modulator Bias Controller is a null locking only miniature OEM version of the Modulator Bias Controller (MBC) family. It is designed to be used with MZ modulators with two DC ports for extremely high extinction ratio operation in analog systems and/or applications.



## Specifications

Parameters	Min.	Typ.	Max.
<b>Optical Performance</b>			
Detector Input Power <sup>1</sup> (dBm)	-55		-40
Optical Wavelength <sup>2</sup> (nm)	1000–1650		
<b>Electrical Performance</b>			
Bias Voltage (V)	-14		14
Null Mode Extinction Ratio <sup>3</sup> (dB)		52	
Locking Mode	Null		
<b>Pilot Tone</b>			
Modulation Depth (NULL) %			0.1
Pilot Tone Amplitude (Vpp)(mV)	0	2	250

Parameters	Min.	Typ.	Max.
<b>Power Supplies</b>			
DC Positive Power Voltage (V)	16	16.5	17
DC Negative Power Voltage (V)	-16	-16.5	-17
DC Positive Power Current (mA)		150	
DC Negative Power Current (mA)		90	
<b>General</b>			
Operating Temperature (°C)	0–70		
Storage Temperature (°C)	-40–85		
Dimensions (inch)	2.53 x 2.57 x 0.65		
Weight (lb)	0.2		

<sup>1</sup> For a given input, detection power refers to the coupled optical power to both photodiodes of the bias controller when the modulator output is at its minimum attenuation (The detection power does not describe the detected power at locking status).

<sup>2</sup> With PD of different wavelength, the wavelength range can be expanded.

<sup>3</sup> In this case, the modulator output power was greater than 0 dBm. 1% coupler was used. The extinction ratio will be close to but not exceed the extinction ratio of the modulator.

Part Number

***MBC-DUAL-BIAS-X***



**X** = Connector code:  
 3U = FC/UPC  
 3A = FC/APC  
 SCU = SC/UPC  
 SCA = SC/APC  
 LCU = LC/UPC  
 LCA = LC/APC