



DPMZ Modulator Bias Controller Specification

DPMZ-MBC (Ver_1.0)

PARAMETERS	MIN	TYP	MAX	UNITS
Optical Performance				
Detector Input Power ¹	-30		-10	dBm
Optical wavelength	1000		1650	nm
Electrical Performance				
Bias voltage	-10		10	V
Null Mode Extinction Ratio ²		25	40	dB
Tuning Range	+/- 18			Degree
Locking Slope	Positive or Negative			
Locking Mode	Two Null (Peak) positions, one Quad+ or (Quad-) position			
Pilot tone				
Modulation Depth (QUAD) ³		1		%
Modulation Depth (Null)			0.1	%
Pilot Tone Frequency (QUAD)		1K		Hz
Pilot Tone Frequency (NULL)		2K		Hz
Power Supplies				
Positive Power Voltage	11.5	12	12.5	V(DC)
Negative Power Voltage	-12.5	-12	-11.5	V(DC)
Positive Power Current		80		mA(DC)
Negative Power Current		50		mA(DC)
General				
Operating temperature	0		70	Degree C
Storage Temperature	-40		+85	Degree C
Dimension	3.5x2.0x0.65 inch			
Weight	0.2 lb			

1. For a given input, detection power refers to the coupled optical power to the photodiode of DPMZi-MBC when the modulator output is at its minimum attenuation (The detection power does not describe the detected power at locking status).
2. In this case, the modulator output power was greater than 0 dBm. 1% coupler was used. The distinction ratio will be close but not exceed the distinction ratio of the modulator.
3. The desired locking point can be tuned away from Peak/Null/Quad. This tune mode can be switched off/on.
4. Optical Modulation Index = amplitude of modulation/ V_{π} .