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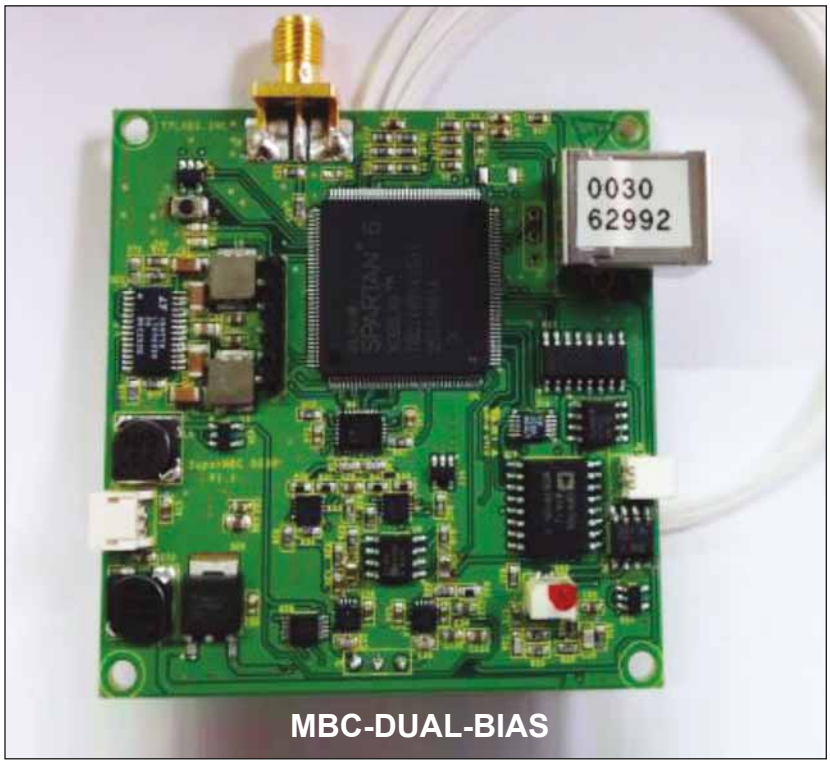
MODULATOR BIAS CONTROLLER - FOR DUAL-DC-BIAS MODULATORS

PRELIMINARY

Features

- For Dual DC-Port Modulator to reach very high extinction ratio at null locking mode
- 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”)
- Access for external photo-detector
- Pulse mode for more precise null locking with pulse applications



MBC-DUAL-BIAS

Product Description

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

Specifications

Parameters	Min.	Typ.	Max.
Optical Performance			
Detector Input Power[1] (dBm)	-30		-10
The Second Detector Input Power (dBm)	-70		-50
Optical Wavelength (nm)	1000–1650		
Electrical Performance			
Bias Voltage (V)	-14		14
Null Mode Extinction Ratio[2] (dB)		52	
Locking Mode	Null		
Pilot Tone			
Modulation Depth (NULL) %			0.1
Pilot Tone Frequency (NULL) (kHz)		2	

Parameters	Min.	Typ.	Max.
Power Supplies			
DC Positive Power Voltage (V)	16	16.5	17
DC Negative Power Voltage (V)	-16	-16.5	-17
DC Positive Power Current (mA)		70	
DC Negative Power Current (mA)		50	
General			
Operating Temperature (°C)	0–70		
Storage Temperature (°C)	-40–85		
Dimensions (inch)	2.53 x 2.57		
Weight (lb)	0.2		

1 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).

2 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:
3 = NTT-FC/PC
3A=Angled NTT-FC/PC
SC=SC
SCA=Angled SC
LC=LC
LCA=Angled LC