I/Q Mixer / Modulator — Model MIQ2xMS-1

Communications Band — RF 1.4 to 2.8 GHz

Electrical Specifications: (1)

Parameter	Conditions RF (GHz)	LO (GHz)	IF (MHz)	Specifications Min	Typical	Max
SSB Conversion loss: (2) (3)	1.4-2.8	1.4-2.8	DC-500		6.0 dB	8.0 dB
Image Rejection Side-band Suppression: (4)	1.4-1.7 1.7-2.8	1.4-1.7 1.7-2.8	DC-500 DC-500	18 dB 20 dB	22 dB 30 dB	
Amplitude Match	1.4-2.8	1.4-2.8	DC-500		0.2 dB	
Phase Match	1.4-2.8	1.4-2.8	DC-500		3 deg	
Isolation						
LO to RF:		1.4-2.8		34 dB	42 dB	
LO to I/Q:		1.4-2.8		20 dB	40 dB	
RF to I/Q:	1.4-2.8				30 dB	
I/Q to RF:			DC-500		45 dB	
Input 1 dB Compression Point:	1.4-2.8	1.4-2.8	DC-500		+6 dBm +9 dBm +13 dBm	MIQ24 MIQ26 MIQ27
Input Third Order Intercept Point:	1.4-2.8	1.4-2.8	DC-500		+14 dBm +17 dBm +21 dBm	MIQ24 MIQ26 MIQ27
LO Power: (5)	1.4-2.8	1.4-2.8	DC-500		+10 dBm +13 dBm +17 dBm	MIQ24 MIQ26 MIQ27

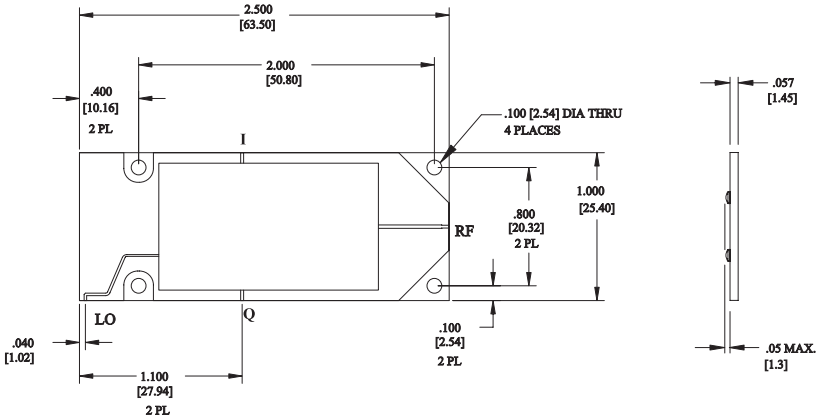
Model MIQ2xMS-1

LO Power
4 = +10 dBm
6 = +13 dBm
7 = +17 dBm

Notes:
1. Specifications are guaranteed when tested as a downconverter in a 50 Ohm system at +25˚C with the nominal LO power. Specifications indicated as typical are not guaranteed.
2. Noise figure is typically within ±0.5 dB of conversion loss for IF frequencies greater than 10 MHz.
3. Conversion loss typically degrades less than 0.5 dB at +100˚C and improves less than 0.5 dB at -55˚C. Conversion loss is the combined value.
4. Measured with an IF quadrature hybrid whose amplitude and phase errors are 0.5 dB and 3 degrees maximum. An IF quadrature hybrid is not included.
5. Usable LO drives are up to 2 dB below to 3 dB above nominal.
6. See Application notes M112, for aid in selecting the outline and for mounting and installation information.

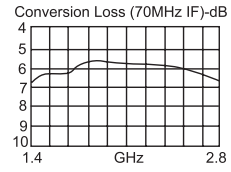
MIQ2xMS-1

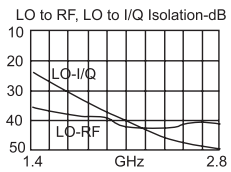
Outline: MSQ6

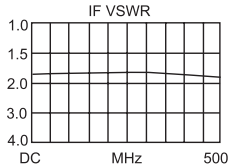


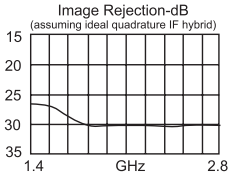
All dimensions are in inches and [mm].

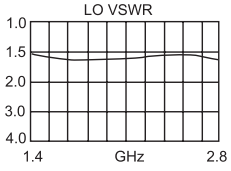
Typical Performance at 25˚C

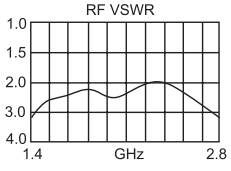


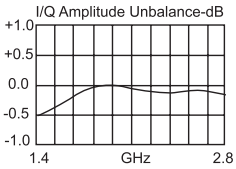


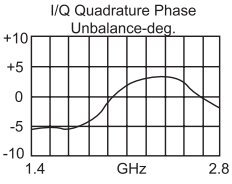












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