



E-Series Surface Mount Mixer 80 – 2500 MHz

Features

- LO Power +13 dBm
- Up to +8 dBm RF
- Surface Mount

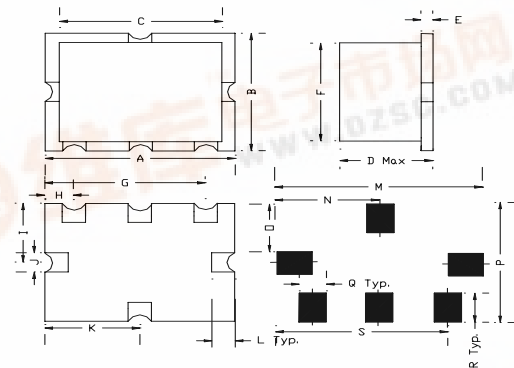
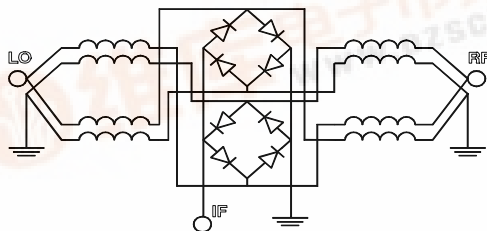


SM-140 Package

Description

M/A-COM's MAMXES0042 is a Low Cost, Medium Drive, Passive, Double Double Balanced Mixer. Constructed using very broad band ferrite balun transformers and matched silicon schottky diodes. It's performance is especially suited to high dynamic range receivers. Given it's high 1dB compression point, the MAMXES0042 is also suitable for Transmitter upconversion at any frequency up to 2.5GHz.

Schematic



Outline Dimensions (Inch/mm)												
A	B	C	D	E	F	G	H	I	J	K		
0.49	0.37	0.42	0.19	.031	0.31	.415	.075	.185	.06	.245		
12.44	9.39	10.77	5.0	.787	8.0	10.54	1.90	4.7	1.52	6.22		
L	M	N	P	Q	R	S						
.06	.54	.27	.215	.43	.07	.09	.444					

Electrical Specifications @ +25°C

Parameter	Units	Minimum	Typical	Maximum
Frequency Range	80 - 2500 MHz	—	—	—
IF 1.0 dB Bandwidth = DC - 1000 MHz	—	—	—	—
Conversion Loss	80 - 1000 MHz	—	—	7.5
	1000 - 2500 MHz	—	—	9.0
L - R Isolation	80 - 1000 MHz	27.0	32.5	—
	1000 - 2500 MHz	22.0	29.1	—
L - I Isolation	80 - 1000 MHz	25.0	31.8	—
	1000 - 2500 MHz	15.0	19.82	—
R - I Isolation	80 - 1000 MHz	22.0	28.3	—
	1000 - 2500 MHz	18.0	24.6	—
LO VSWR	80 - 1000 MHz	—	1.56	2.15
	1000 - 2500 MHz	—	1.25	1.70
RF VSWR	80 - 1000 MHz	—	1.62	2.1
	1000 - 2500 MHz	—	1.71	2.2
IF VSWR	DC - 600 MHz	—	1.65	2.3
Input IP3	200 - 1000 MHz	21.0	26.6	—
	1000 - 2500 MHz	17.0	23.5	—
Input 1dB Compression	—	—	+8.0	—



Specifications subject to change without notice.

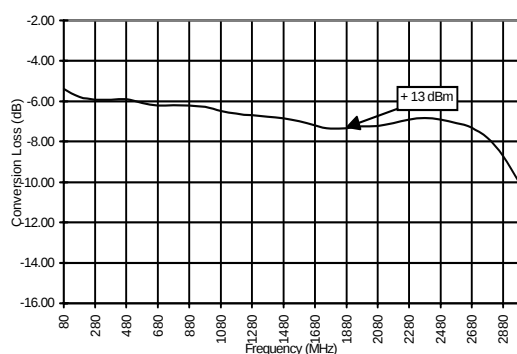
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20 dBm
LO Drive Power	+20 dBm
Operating/Storage Temperature	-40°C to +85°C

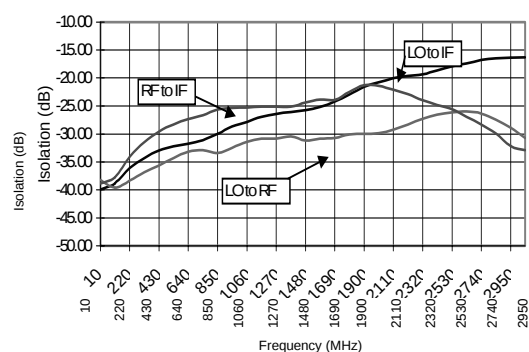
Function	Pin No.
RF	1
LO	2
IF	3
Ground	4,5,6

Typical Performance @ +25°C

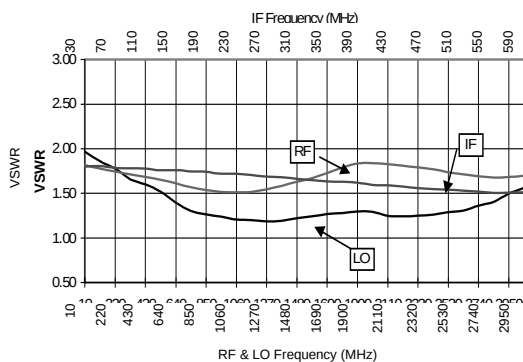
Conversion Loss



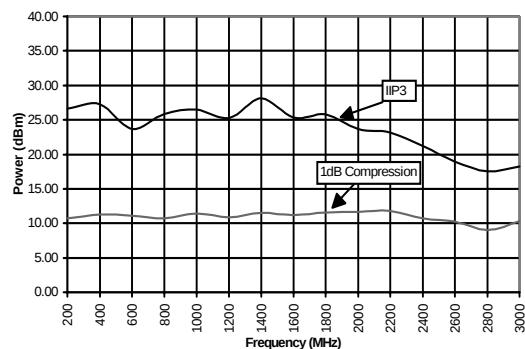
Isolation



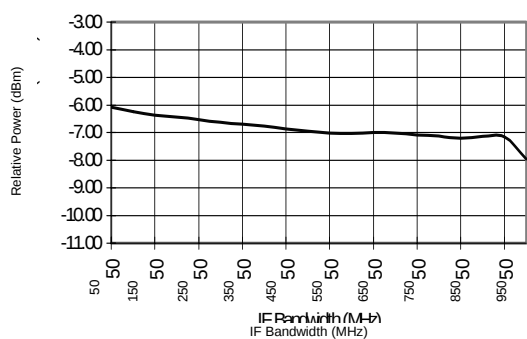
VSWR



IIP3 & 1dB Compression



IF Bandwidth



Note: Conversion Loss measured with fixed IF frequency of 70MHz.
All measurements made with input power of +13dBm.

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