



High Input Intercept Point (IP3) Mixer, 1.8 - 2.2 GHz

V 3A.00

Advanced

MAMXSS0003

Features

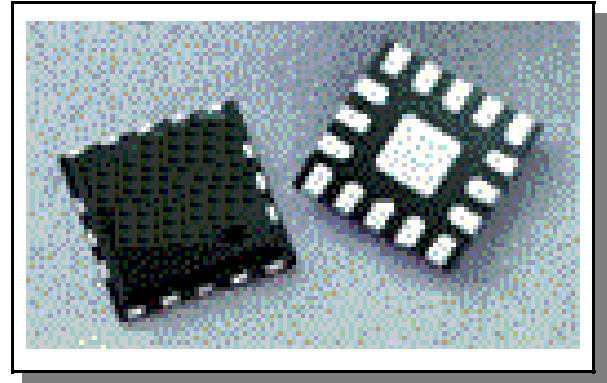
- High Input Intercept Point, up to +35 dBm
- 9.5 dB Conversion Loss
- +17 dBm LO Drive
- Up or Down Conversion
- Chip Scale Leadless Package

Description

M/A-COM's MAMXSS0003 is a high performance mixer designed for use in a broad range of applications where high linearity is required.

This low side LO mixer can be used as an up/down converter, or modulator for transmitters or receivers.

The MAMXSS0003 is fabricated using M/A-COM's mature 1 micron GaAs process. The process features full passivation for increased performance and reliability.



Absolute Maximum Ratings ¹

Parameter	Absolute Maximum
Input Power ²	+27 dBm
Operating Voltages ²	
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

1. Operation of this device above any one of these parameters may cause permanent damage.
2. Ambient Temperature (TA) = +25°C.

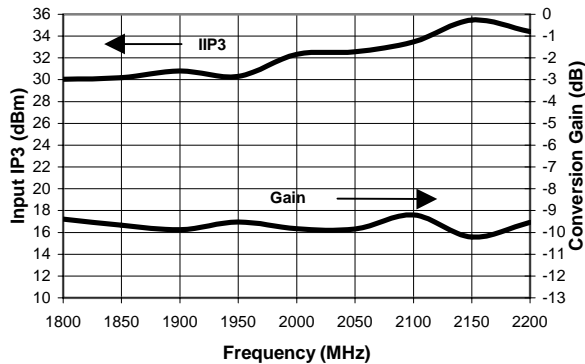
Electrical Specifications: T_A = 25°C

Parameter	Test Conditions	Units	Min	Typ	Max
RF Frequency	—	GHz	1.8	—	2.2
LO Frequency	—	GHz	1.5	—	2.0
IF Frequency	—	GHz	0.05	—	0.4
Conversion Loss	—	dB	—	9.5	—
VSWR	LO & IF RF	Ratio Ratio	— —	1.5:1 2.0:1	— —
Input Intercept Point	—	dBm	—	30 - 35	—
Input 1 dB Compression	—	dBm	—	23	—
Isolation	LO to RF	dB	—	18	—
	LO to IF	dB	—	25	—
	RF to IF	dB	—	25	—
LO Drive Level	—	dBm	—	17	—

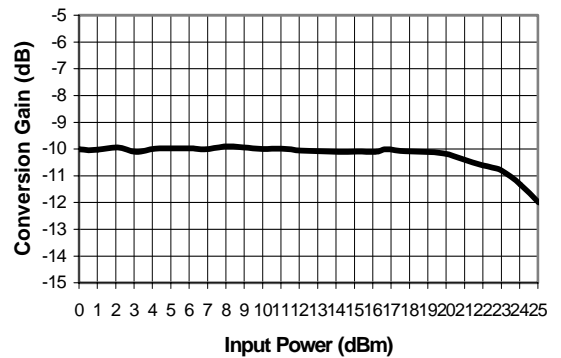
This Advanced Data Sheet contains technical information about a product M/A-COM may introduce. Specifications subject to change prior to formal introduction. All measurements in a 50 Ohm system.

Typical Performance Curves

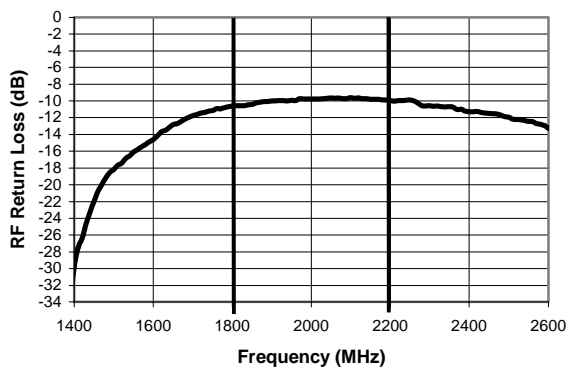
Input IP3 and Conversion Gain @ 25°C, RF = -10 dBm



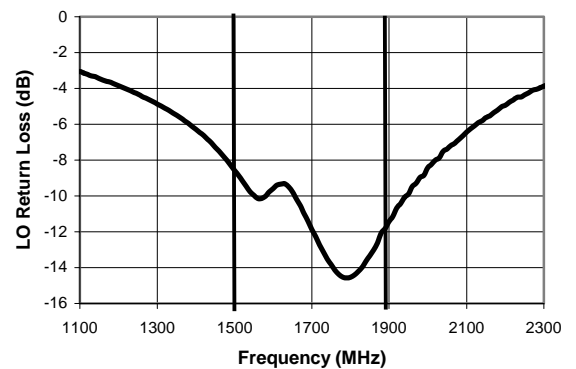
Input P1dB @ 25°C



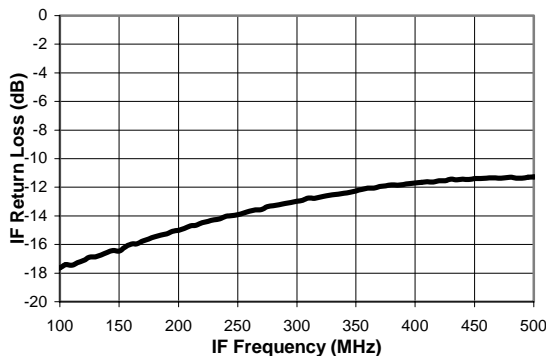
RF Return Loss



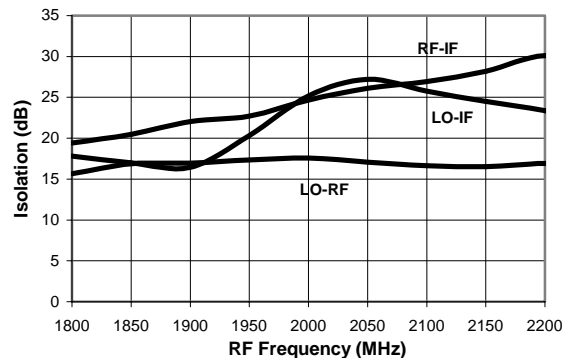
Lo Return Loss



IF Return Loss



Isolation @ 25°C



Specifications subject to change without notice.

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Visit www.macom.com for additional data sheets and product information.

