

AMP

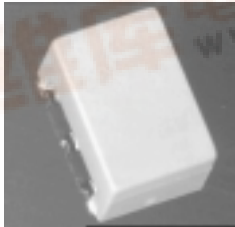
M/A-COM

E-Series Surface Mount Mixer 5 – 1500 MHz



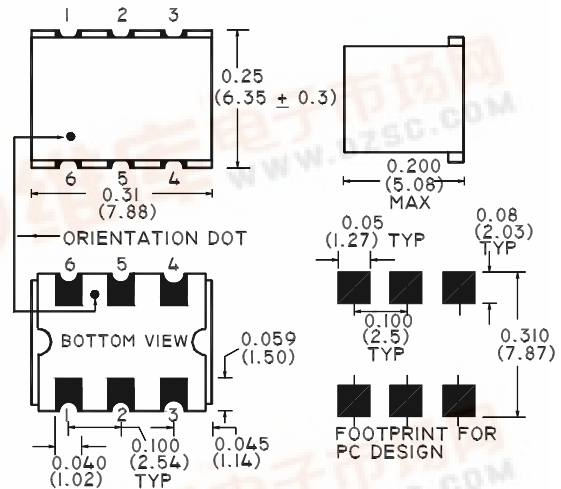
Features

- LO Power +7 dBm
- Up to +1 dBm RF
- Surface Mount



SM-87 Package

Note: Non Hermetic Package



Description

M/A-COM's ELCM-5 is a Low Cost, Broadband, high performance Double Balanced Mixer designed for use in high volume wireless applications. The device has been optimised by careful selection of the Schottky Diode and Balun Transformer for excellent performance. ELCM-5 is available in an SM-87 surface mount package and reflows using standard soldering reflow profiles.

Electrical Specifications @ +25°C, Z₀ = 50 Ohms, LO = +7dBm

Parameter	Units	Minimum	Typical	Maximum
Frequency Range				
RF	5 - 1500	—	—	—
LO	5 - 1500	—	—	—
IF	DC - 1000	—	—	—
Conversion Loss				
10 - 750	dB	—	6.5	7.5
5 - 1500	dB	—	7.5	9.5
Isolation (LO - RF)				
5 - 50	MHz	40	60	—
50 - 750	MHz	20	40	—
750 - 1500	MHz	18	30	—
Isolation (LO - IF)				
5 - 50	MHz	30	55	—
50 - 750	MHz	18	30	—
750 - 1500	MHz	8	15	—
RF Input for 1dB Compression	dBm	—	—	+1



Absolute Maximum Ratings

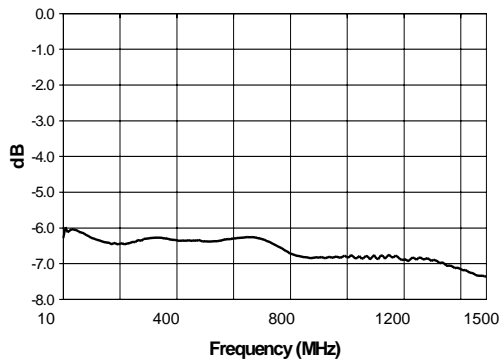
Parameter	Absolute Maximum
RF Power	150 mW
Peak IF Current	40 mA
Storage Temperature	-55°C to +100°C
Operating Temperature	-55°C to +100°C
Pin Temperature (10 Seconds)	260°C

Functional Configuration

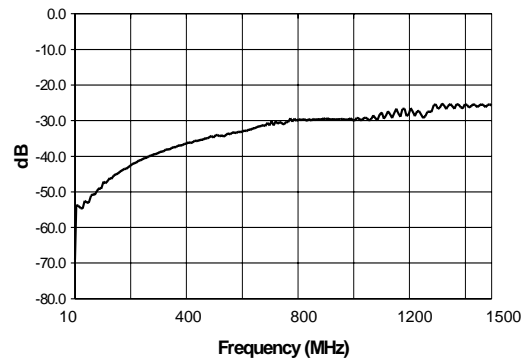
Function	Pin No.
LO	1
RF	4
IF	5
Ground	2, 3, 6
Case Ground	—
Unconnected	—

Typical Performance @ +25°C

Conversion Loss



L-R Isolation



L-I Isolation

