E-Series Surface Mount Mixer
5 – 1500 MHz

ELCM-5
V4

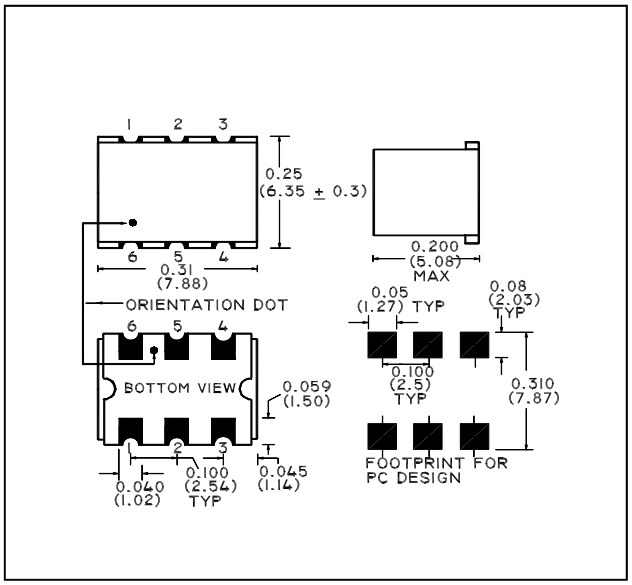
Features

- LO Power +7 dBm
- Up to +1 dBm RF
- Low Profile
- Surface Mount
- Tape and reel packaging available

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. Parts are packaged in tape & reel.

SM - 87 Package



Electrical Specifications: T_A = 25°C, Z_0 = 50Ω [1], LO = +7 dBm

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	5 - 1500	MHz	—	—	—
LO Frequency	—	5 - 1500	MHz	—	—	—
IF Frequency	—	DC - 1000	MHz	—	—	—
Conversion Loss	—	10 - 750 5 - 1500	dB dB	— —	6.5 7.5	7.5 9.5
Isolation	LO to RF	5 - 50 50 - 750 750 – 1500	dB dB dB	40 20 18	60 40 30	— — —
Isolation	LO to IF	5 - 50 50 - 750 750 – 1500	dB dB dB	30 18 8	55 30 15	— — —
Input 1 dB Compression	—	5 - 1500	dBm	—	—	1

Ordering Information

Part Number	Package
ELCM-5TR	Tape and Reel (900 piece Reel)

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or information.

- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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

Pin Configuration

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

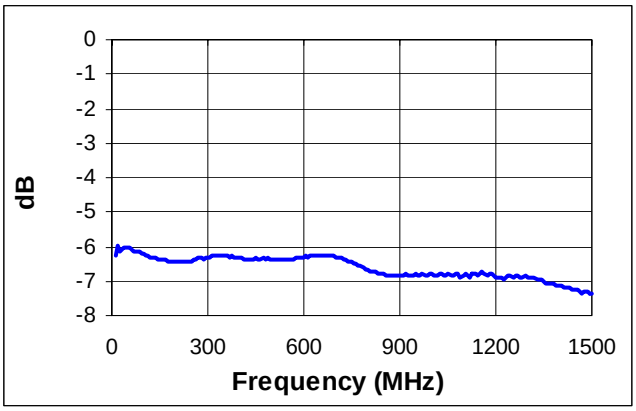
Absolute Maximum Ratings [1]

Parameter	Absolute Maximum
RF Power	150 mW
Peak IF Current	40 mA
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +125°C
Pin Temperature (10 seconds)	+260°C

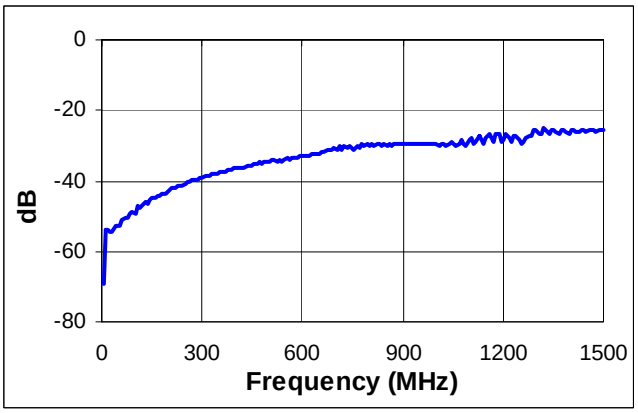
1. Operation of this device above any one of these parameters may cause permanent damage.

Typical Performance Curves

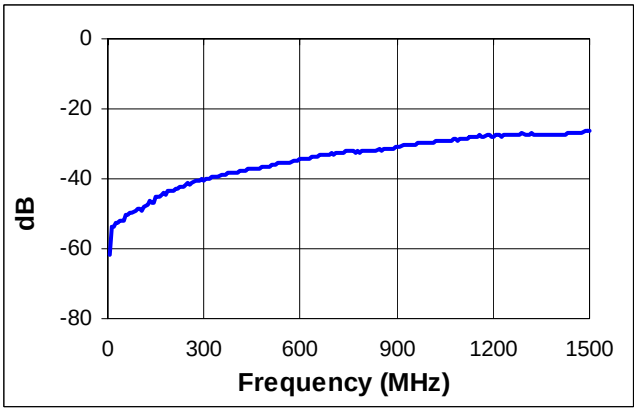
Conversion Loss



LO - RF Isolation



LO - IF Isolation



M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or information.

- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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