

**E-Series Surface Mount Mixer**  
0.5 – 500 MHz

**ELCM-1H**  
**V3**

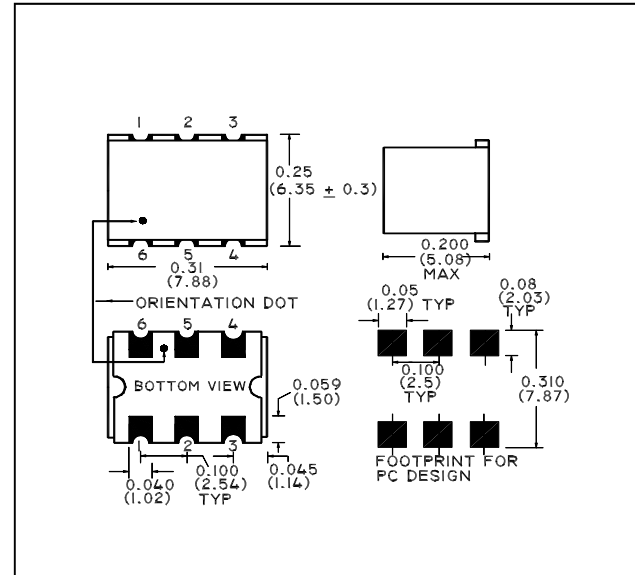
**Features**

- LO Power +17 dBm
- Up to +14 dBm RF
- Low Profile
- Surface Mount
- Tape and reel packaging available

**Description**

M/A-COM's ELCM-1H 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-1H 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:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50\Omega$ <sup>1</sup>, LO = +17 dBm**

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	0.5 - 500	MHz	—	—	—
LO Frequency	—	0.5 - 500	MHz	—	—	—
IF Frequency	—	DC - 500	MHz	—	—	—
Conversion Loss	—	1 - 250	dB	—	6.8	7.5
		250 - 500	dB	—	7.2	8.0
Isolation	LO to RF	0.5 - 5	dB	50	55	—
		5 - 250	dB	35	40	—
		250 - 500	dB	30	35	—
Isolation	LO to IF	0.5 - 5	dB	45	55	—
		5 - 250	dB	30	35	—
		250 - 500	dB	27	35	—
Input 1 dB Compression	—	0.5 - 500	dBm	—	—	14

**Ordering Information**

Part Number	Package
ELCM-1HTR	Tape and Reel (900 piece Reel)

1

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](http://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

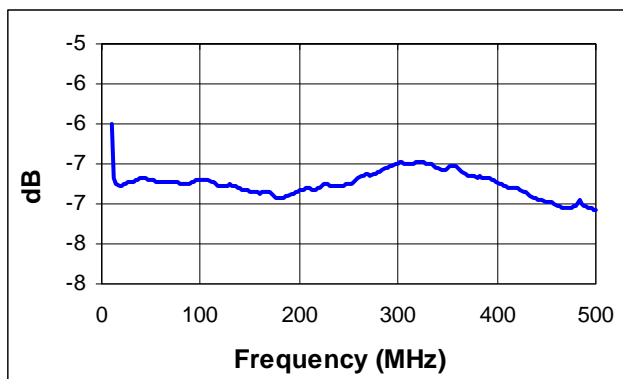
### Absolute Maximum Ratings <sup>1</sup>

Parameter	Absolute Maximum
RF Power	200 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

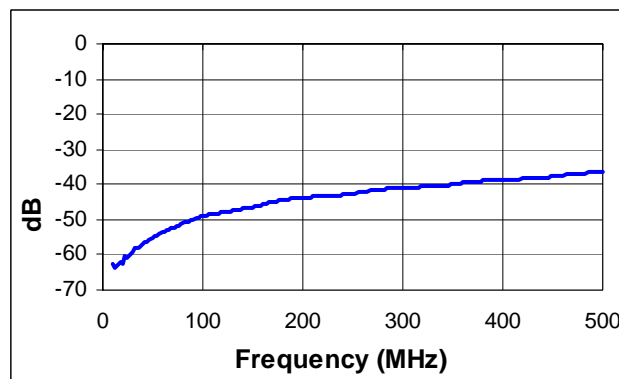
1. Operation of this device above any one of these parameters may cause permanent damage.

### Typical Performance Curves

#### Conversion Loss



#### LO - RF Isolation



#### LO - IF Isolation

