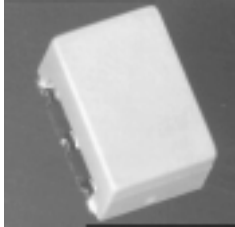


E-Series Surface Mount Mixer 5 – 1500 MHz



Features

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

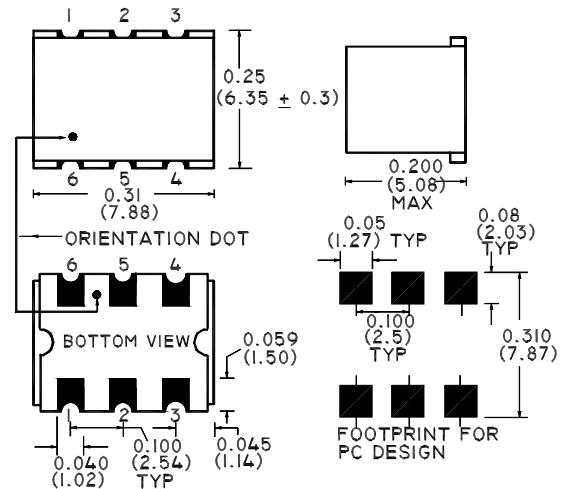


SM-87 Package

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 | MHz | — | — |
| LO | 5 - 1500 | MHz | — | — |
| IF | DC - 1000 | MHz | — | — |
| 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 |

V3.00 S 1356 B

Absolute Maximum Ratings

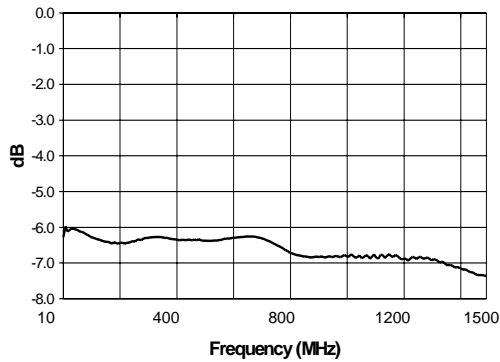
| Parameter | Absolute Maximum |
|------------------------------|------------------|
| RF Power | 150 mW |
| Peak IF Current | 40 mA |
| Storage Temperature | -55°C to +100°C |
| Operating Temperature | -55°C to +100°C |
| Pin Temperature (10 Seconds) | 260°C |

Functional Configuration

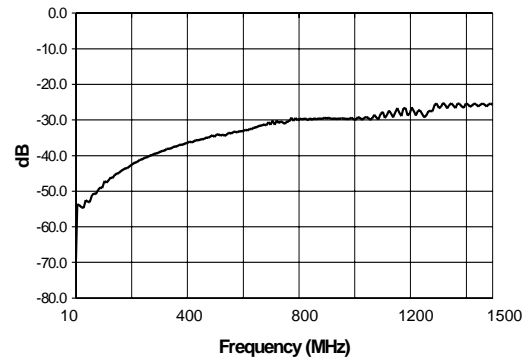
| Function | Pin No. |
|-------------|---------|
| LO | 1 |
| RF | 4 |
| IF | 5 |
| Ground | 2, 3, 6 |
| Case Ground | — |
| Unconnected | — |

Typical Performance @ +25°C

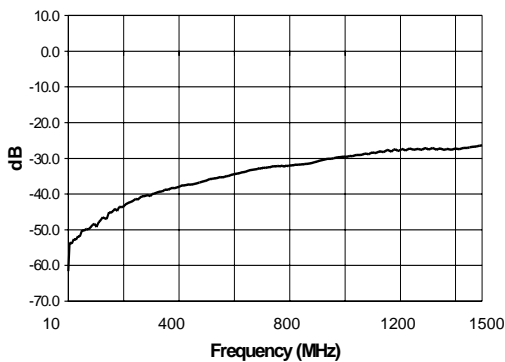
Conversion Loss



L-R Isolation



L-I Isolation



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