

E-Series Surface Mount Mixer

1 – 1000 MHz

ESMD-C1
V1

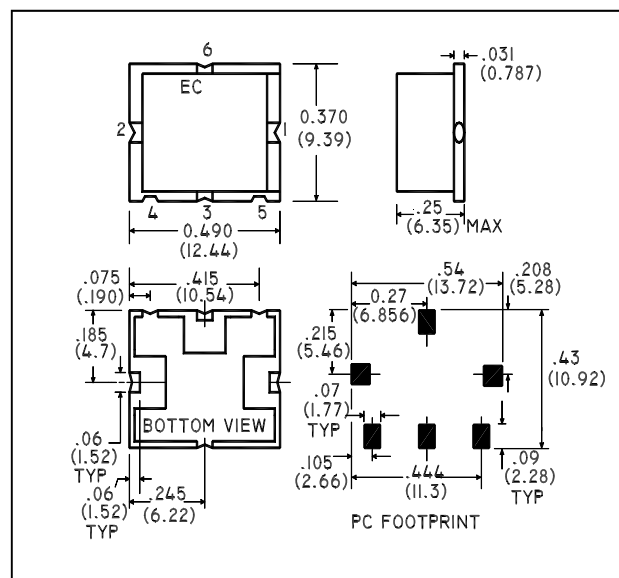
Features

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

Description

M/A-COM's ESMD-C1 is a Low Cost, Broadband, high performance 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. ESMD-C1 is available in an SM-2 surface mount package and reflows using standard soldering reflow profiles. Parts are packaged in tape & reel.

SM - 2 Package



Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$ ¹, LO = +7 dBm

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency	—	1 - 1000	MHz	—	—	—
LO Frequency	—	1 - 1000	MHz	—	—	—
IF Frequency	—	DC - 1000	MHz	—	—	—
Conversion Loss	—	2 - 500 1 - 1000	dB dB	— —	6.5 7.5	7.5 9.5
Isolation	LO to RF	1 - 10 10 - 500 500 - 1000	dB dB dB	45 30 25	60 45 40	— — —
Isolation	LO to IF	1 - 10 10 - 1000	dB dB	40 23	60 35	— —
Input 1 dB Compression	—	1 - 1000	dBm	—	—	1

Ordering Information

Part Number	Package
ESMD-C1TR	Tape and Reel (500 piece Reel)

E-Series Surface Mount Mixer
1 – 1000 MHz

ESMD-C1
V1

Pin Configuration

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

Absolute Maximum Ratings ¹

Parameter	Absolute Maximum
RF Power	50 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.