



E-Series Surface Mount Mixer  $0.5 - 500 \, MHz$ 

EMRS-1 V1

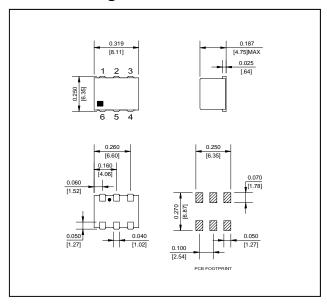
#### **Features**

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

#### **Description**

M/A-COM's EMRS-1 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. EMRS-1 is available in an SM-1 surface mount package and reflows using standard soldering reflow profiles. Parts are packaged in tape & reel.

#### SM - 1 Package



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

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
RF Frequency	_	0.5 - 500	MHz	_	_	_
LO Frequency	-	0.5 - 500	MHz	1	_	_
IF Frequency	<del>-</del>	DC - 500	MHz	_	_	_
Conversion Loss	_	1 - 250 0.5 - 500	dB dB	_	5.5 6.2	7.0 8.5
Isolation	LO to RF	5 - 250 250 - 500	dB dB	25 20	33 27	_
Isolation	LO to IF	0.5 - 5 5 - 250 250 - 500	dB dB dB	55 30 24	45 23 19	_ _ _
Input 1 dB Compression	<del>-</del>	0.5 - 500	dBm	_	_	1

#### **Ordering Information**

Part Number	Package		
EMRS-1TR	Tape and Reel (900 piece Reel)		

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### **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	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		

<sup>1.</sup> Operation of this device above any one of these parameters may cause permanent damage.

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