

E-Series Surface Mount Mixer

925 – 960 MHz, 1805 – 1880 MHz & 1930 – 1990 MHz

EMRS-6X1
V3

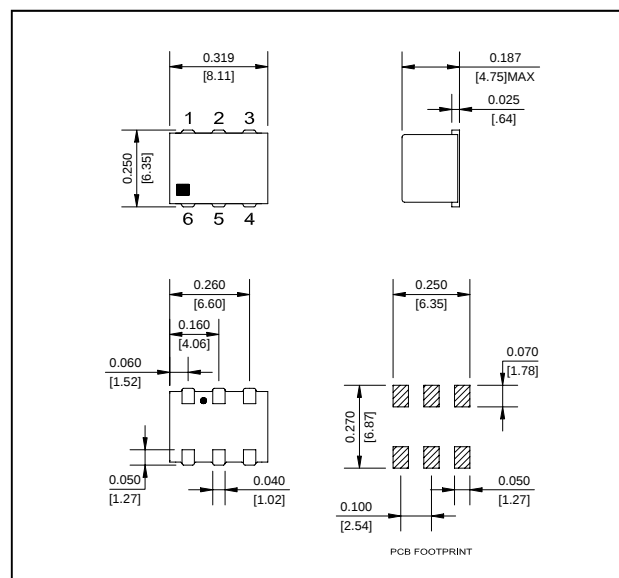
Features

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

Description

M/A-COM's EMRS-6X1 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-6X1 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: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$ ¹, LO = +7 dBm

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
RF Frequency (1)	—	925 - 960	MHz	—	—	—
LO Frequency (1)	—	45	MHz	—	—	—
IF Frequency (1)	—	820 - 915	MHz	—	—	—
RF Frequency (2)	—	1805 - 1880	MHz	—	—	—
LO Frequency (2)	—	95	MHz	—	—	—
IF Frequency (2)	—	1710 - 1785	MHz	—	—	—
RF Frequency (3)	—	1930 - 1990	MHz	—	—	—
LO Frequency (3)	—	80	MHz	—	—	—
IF Frequency (3)	—	1850 - 1910	MHz	—	—	—

Ordering Information

Part Number	Package
EMRS-6X1TR	Tape and Reel (900 piece Reel)

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Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Conversion Loss	—	925 - 960	dB	6.5	7.0	9.0
		1805 - 1880	dB	8.5	9.5	11.0
		1930 - 1990	dB	8.5	10.0	11.0
Isolation	LO to RF	45, 80, & 95 MHz	dB	25	35	55
Isolation	LO to IF	45, 80, & 95 MHz	dB	25	30	40
Input 1 dB Compression	—	5 - 2500	dBm	—	—	7
RF VSWR	—	—	Ratio	1.3:1	2.4:1	3.0:1
LO VSWR	—	—	Ratio	1.4:1	1.6:1	1.8:1
IF VSWR	—	—	Ratio	1.1:1	1.4:1	1.8:1

Pin Configuration

Pin No.	Function
1	LO I/P
2	Ground
3	Ground
4	RF O/P
5	IF I/P
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.