



# SME901-13

Quad-Diode Mixer

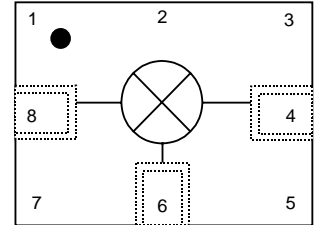
The Communications Edge™

Preliminary Product Information

## Product Features

- High IIP3 +22 dBm
- RF Freq 800-1000 MHz
- LO Freq 550-1250 MHz
- IF Freq 20-250 MHz
- LO Drive Level +13 dBm
- High L-R Isolation 42 dB

## Functional Diagram



Function	Pin No.
Ground	1-3
RF	4
Ground	5
IF	6
Ground	7
LO	8

## Specifications

Parameters	Units	Minimum	Typical	Maximum	Comments
RF Frequency	MHz	800		1000	
LO Frequency	MHz	550		1250	
IF Frequency	MHz	20		250	
SSB Conversion Loss	dB		6.5		
L-R Isolation	dB		42		
L-I Isolation	dB		27		
R-I Isolation	dB		23		
IIP3	dBm		22		
LO Drive	dBm		13		
RF - Return Loss	dB		12		
LO - Return Loss	dB		10		
IF - Return Loss	dB		12		
1 dB Compression	dBm		+8		

Test conditions unless otherwise noted

1. Tested as a downconverter in a 50 Ohm System, low Side LO, @25 deg C.

## Recommended Maximum Rating

Parameters	Rating
Operating Case Temperature	-40 to +85 °C
Storage Temperature	-65 to +100 °C
RF Input Power at 25°C (continuous)	+23 dBm

## Ordering Information

Part No.	Description
SME901-13	Diode Mixer (Available in Tape & Reel)
SME901-13-PCB	Fully Assembled App Ckt.

This document contains information on a new product. Specifications and information are subject to change without notice

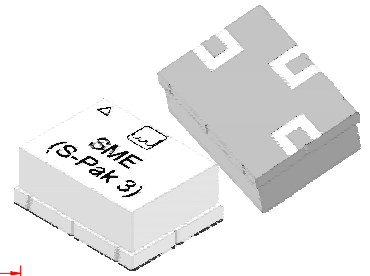


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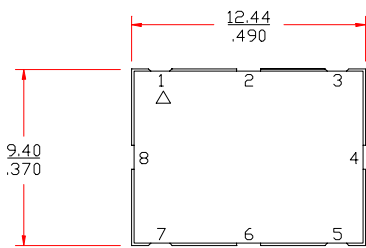
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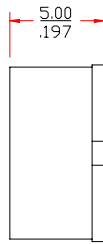
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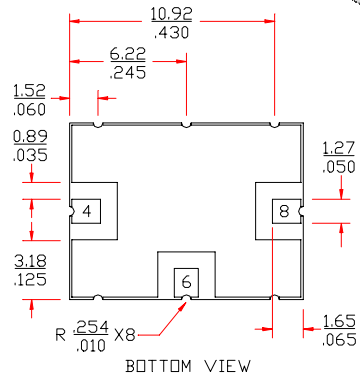
## OUTLINE DRAWING



TOP VIEW

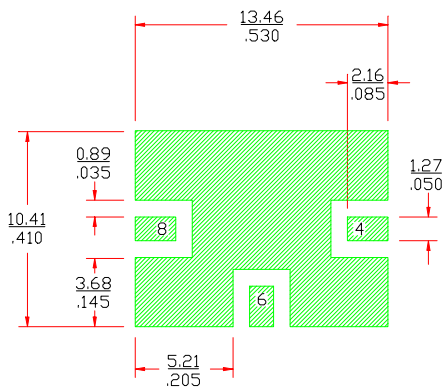


mm  
inch



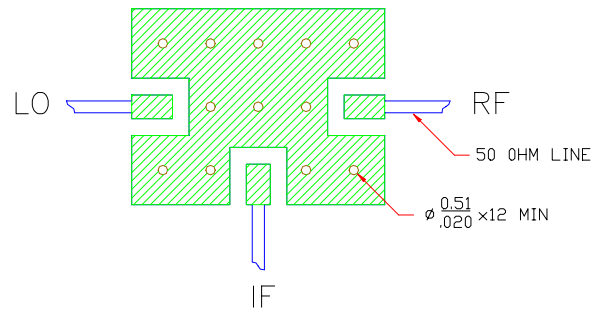
BOTTOM VIEW

## LAND PATTERN



TOP VIEW

## MOUNTING CONFIGURATION



FUNCTION	PIN NO.
GROUND	1-3
RF	4
GROUND	5
IF	6
GROUND	7
LO	8

- Notes:
1. Ground vias are critical for thermal and RF grounding considerations.
  2. A minimum of 12 ground vias are required.
  3. If your PCB design rules allow, ground vias should be placed under the land pattern for better RF and thermal performance. Otherwise ground vias should be placed as close to land pattern as possible.
  4. Trace width depends on PC board.

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