

# E-Series I/Q Demodulator 851-869 MHz

MAMDES0002



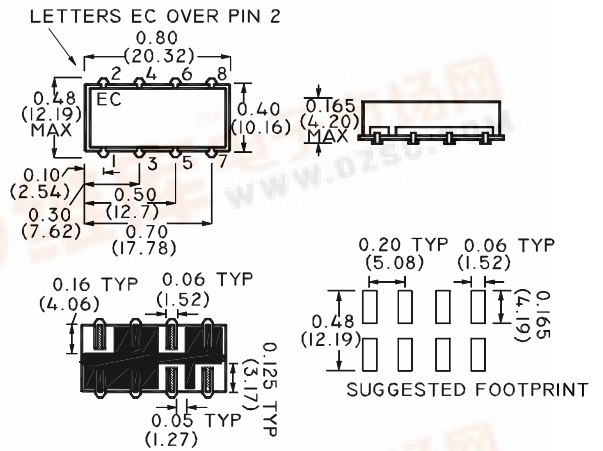
## Features

- Excellent Phase and Amplitude Balance
- LO Power +10 dBm Typical
- Surface Mount



## SM-92 Package

NON HERMATIC PACKAGE  
METAL COVER



## Description

M/A-COM's MAMDES0002 is a passive, surface mount I/Q Demodulator. Ideally suited for Direct Demodulation in PMR/TETRA applications.

## Electrical Specifications @25°C

Parameter	Units	Typical	Minimum	Maximum
Frequency Range	LO / RF	851-869	—	—
	I/Q	DC - 10	—	—
Amplitude Unbalance	dB	0.2	—	0.3
Phase Unbalance	Degrees	2.0	—	3.0
Isolation	LO to RF	55	20	—
	LO to I/Q	30	20	—
Conversion Loss	dB	6.4	—	8.0
(LO) Carrier Power	dBm	+10 ± 1	—	—

Q= -90° for RF>LO



### Absolute Maximum Ratings

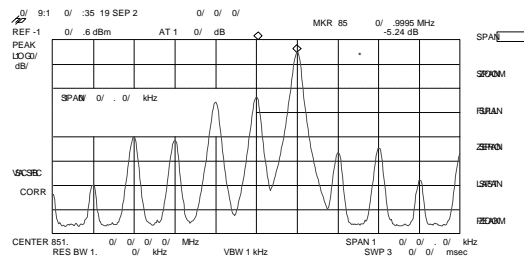
Parameter	Absolute Maximum
Operating Temperature	-10°C to +70°C
Storage Temperature	-55°C to +100°C
Impedance	50 Ohms Nominal
RF Power (1dB Compression)	4 dBm Max

### Functional Configuration

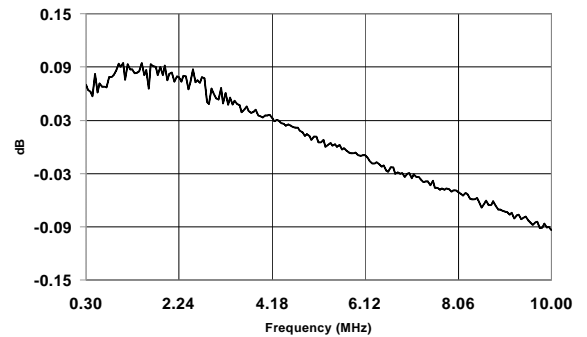
Function	Pin No.
LO	1
RF	8
I	5
Q	6
External 50 Ohms	—
Case Ground	2,3,4,7
Not Connected	—

### Typical Performance @ +25°C

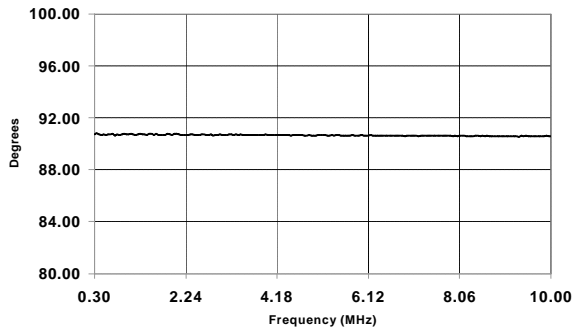
#### Conversion Loss



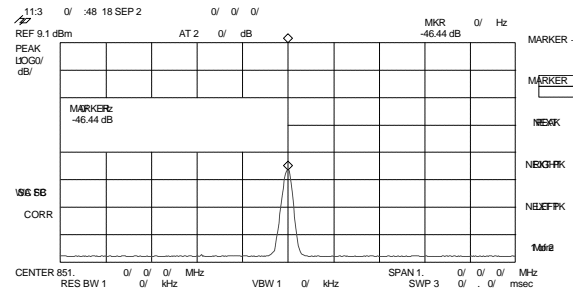
#### Amplitude Unbalance



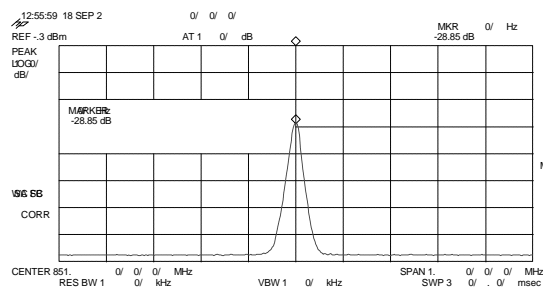
#### Phase Unbalance



#### L-R Isolation



#### L-I Isolation



#### L-Q Isolation

