

# RoHS Compliant

E-Series I/Q Modulator  
935.2 – 959.8 MHz



MAMO-007252-IN2960  
V1

## Features

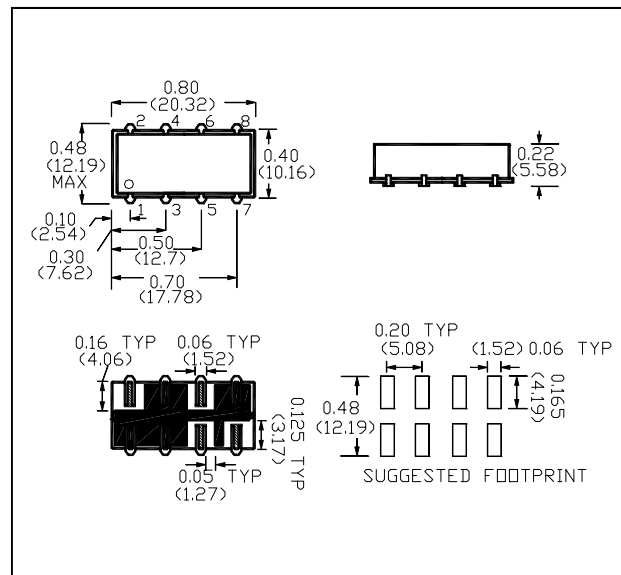
- High Carrier Suppression
- High 3 I and 5 I Suppression
- LO Power + 10 dBm Typical
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS\* compliant version of the EKIN2-960

## Description

M/A-COM's MAMO-007252-IN2960 is a RoHS Compliant passive, high performance surface mount Modulator. It is ideally suited for Direct Modulation in GSM / E-GSM Cellular Base Stations.

The MAMO-007252-IN2960 is available in a SM-28 surface mount package and is designed to be utilized in both RoHS and standard reflow profiles. Parts are packaged in tape & reel.

## SM - 28 Package



## Ordering Information

Part Number	Package
MAMO-007252-IN2960	Tape and Reel (300 piece Reel)

## Absolute Maximum Ratings <sup>1,2</sup>

Parameter	Absolute Maximum
Impedance	50 Ohms nominal
Operating Temperature	-55°C to +85°C
Storage Temperature	-65°C to +125°C

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. M/A-COM does not recommend sustained operation near these survivability limits.

## Pin Configuration

Pin No.	Function
1	LO
2	Case Ground
3	Case Ground
4	Case Ground
5	I
6	Q
7	Case Ground
8	RF

**This PRELIMINARY Data Sheet contains information regarding a product M/A-COM has under development. Performance is based on measured results and target specifications. Commitment to produce in volume is not guaranteed.**

\* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

**Electrical Specifications:  $T_A = 25^\circ\text{C}$ ,  $Z_0 = 50\Omega$ , LO = +10 dBm**

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
LO Frequency	—	935.2 - 959.8	MHz	—	—	—
I/Q Frequency	—	DC - 0.27	MHz	—	—	—
LO Carrier Suppression	When Q = +90 degrees relative to I; Lower sideband is suppressed. Related to wanted sideband power.	935.2 - 959.8	dBc	—	27	—
SSB Rejection		935.2 - 959.8	dBc	—	34	—
Harmonic Suppression 3 x I/Q		935.2 - 959.8	dBc	—	40	—
Harmonic Suppression 5 x I/Q		935.2 - 959.8	dBc	—	55	—
Conversion Loss	—	935.2 - 959.8	dB	—	—	10
(LO) Carrier Power	—	935.2 - 959.8	dBm	—	+10 ± 1	—
I/Q Drive Level	—	935.2 - 959.8	dBm	—	-10	—

## Typical Performance Curves

### Conversion Loss

