

Features

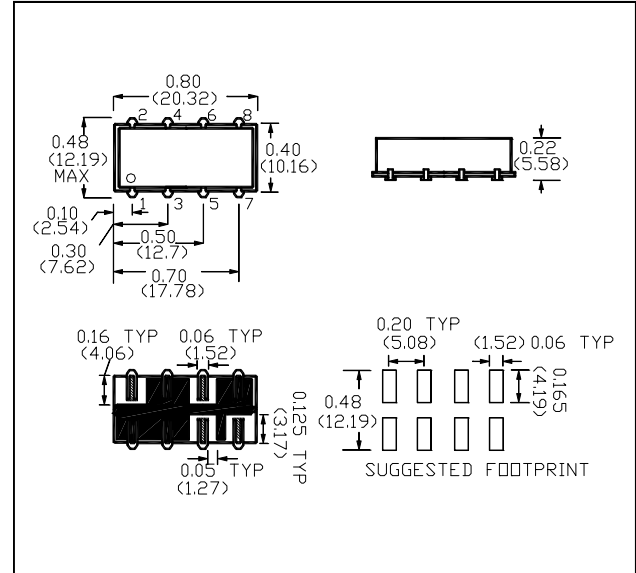
- Hi Carrier Suppression.
- Hi 3I and 5I Suppression
- +10 dBm Typical LO Drive
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS* compliant version of the MAMDES0018

Description

M/A-COM's MAMO-008665-ES0018 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-008665-ES0018 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-008665-ES0018 | Tape and Reel (300 piece Reel) |

Absolute Maximum Ratings ^{1,2}

| Parameter | Absolute Maximum |
|-----------------------|------------------|
| Impedance | 50 Ohms nominal |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -40°C to +85°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 | Q |
| 6 | I |
| 7 | Case Ground |
| 8 | RF |

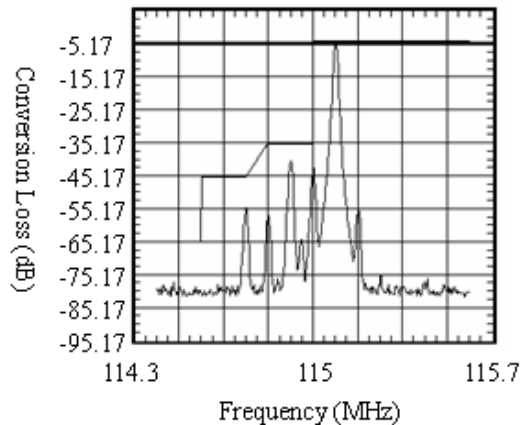
This PRELIMINARY Data Sheet contains information regarding a product M/A-COM has under development. Performance is based on measured results and target specifications. Commitment to produce in volume is not guaranteed.

* 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 | — | 115 | MHz | — | — | — |
| I/Q Frequency | — | DC - 5 | MHz | — | — | — |
| LO Carrier Suppression | When Q = +90 degrees relative to I; Lower sideband is suppressed. Related to wanted sideband power. | 115 | dBc | 30 | 40 | — |
| SSB Rejection | | 115 | dBc | 30 | 40 | — |
| Harmonic Suppression 3 x I/Q | | 115 | dBc | 40 | 50 | — |
| Harmonic Suppression 5 x I/Q | | 115 | dBc | 50 | 60 | — |
| Conversion Loss | — | 115 | dB | — | 6.0 | 7.0 |
| (LO) Carrier Power | — | 115 | dBm | — | +10 ± 1 | — |
| I/Q Drive Level | — | DC - 5 | dBm | — | -10 | — |
| LO-RF Isolation | — | 115 | dBm | 50 | 60 | — |
| LO - I/Q Isolation | — | 115 | dBm | 30 | 40 | — |

Conversion Loss



| Summary Results | |
|------------------|--------|
| Result | Pass |
| Freq (MHz) | 115 |
| C.L. (dB) | -5.17 |
| Carrier (dBC) | -37.62 |
| Sideband (dBC) | -35.33 |
| Other (dBC) | -49.57 |
| Q DC Offset (mV) | 0.00 |
| I DC Offset (mV) | 0.00 |