

E-Series I/Q Modulator 115 MHz

MAMO-008665-ES0018
V1

Features

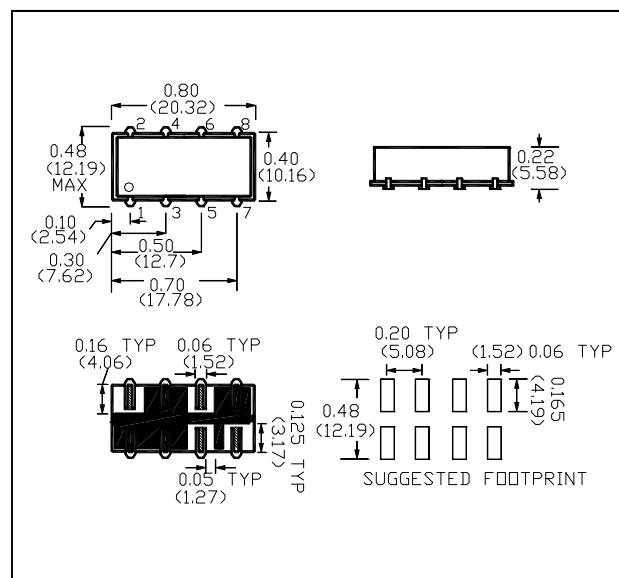
- Hi Carrier Suppression.
- Hi 3I and 5I Suppression
- +10 dBm Typical LO Drive
- Surface Mount
- Tape and reel packaging available
- 260°C Reflow Compatible
- RoHS* compliant version of the MAMDES0018

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.

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

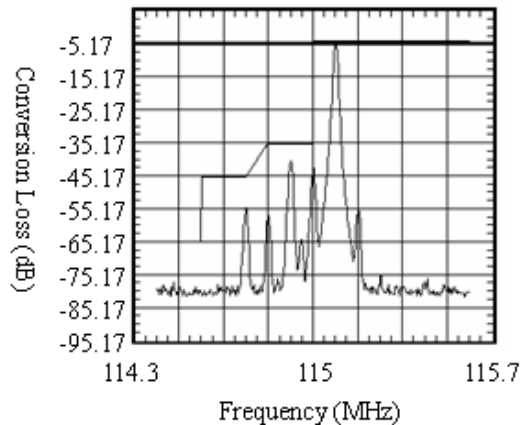
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 Visit www.macomtech.com for additional data sheets and product information.

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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