

E-Series I/Q Modulator 150 MHz

Hi Carrier Suppression.

Hi 3I and 5I Suppression

Surface Mount

Description

+10 dBm Typical LO Drive

260℃ Reflow Compatible

Tape and reel packaging available

RoHS* compliant version of the MAMDES0019

M/A-COM's MAMO-008774-ES0019 is a RoHS Com-

pliant passive, high performance surface mount Modulator. It is ideally suited for Direct Modulation in GSM, DCS1800, WCDMA and PCS Cellular Base Stations. The MAMO-008774-ES0019 is available in a SM-28

surface mount package and is designed to be utilized in both RoHS and standard reflow profiles. Parts are

Features

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MAMO-008774-ES0019 V1

SM - 28 Package

 $\begin{array}{c} 0.80\\ 0.48\\ (12.19)\\ MAX\\ (12.19)\\ (10.16$

Ordering Information

packaged in tape & reel.

Part Number	Package
MAMO-008774-ES0019	Tape and Reel (300 piece Reel)

Absolute Maximum Ratings ^{1,2}

Parameter	Absolute Maximum		
Impedance	50 Ohms nominal		
Operating Temperature	-40℃ to +85℃		
Storage Temperature	-40℃ to +85℃		

1. Exceeding any one or combination of these limits may cause permanent damage to this device.

 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.

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- India Tel: +91.80.4155721 China Tel: +86.21.2407.1588
- Visit www.macomtech.com for additional data sheets and product information.

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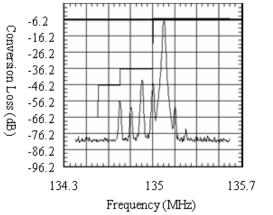


MAMO-008774-ES0019 V1

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

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
LO Frequency	_	150	MHz	—	—	—
I/Q Frequency	_	DC - 5	MHz	_	—	_
LO Carrier Suppression	When Q = +90 degrees relative to I; Lower side- band is suppressed. Related to wanted side- band power.	150	dBc	30	40	_
SSB Rejection		150	dBc	30	40	_
Harmonic Suppression 3 x I/Q		150	dBc	45	55	_
Harmonic Suppression 5 x I/Q		150	dBc	45	50	
Conversion Loss		150	dB	_	6.0	7.0
(LO) Carrier Power	_	150	dBm	_	+10 ± 1	_
I/Q Drive Level	—	DC - 5	dBm	_	-10	_
LO-RF Isolation		150	dBm	50	60	
LO - I/Q Isolation		150	dBm	30	40	

Conversion Loss



	Summary Results		
Result		Pass	
Freq (MHz)		135	
C.L. (dB)		-6.20	
Carrier (dBC)		-39.02	
Sideband (dB	C)	-37.19	
Other (dBC)		-49.73	
Q DC Offset (n	nV)	0.00	
I DC Offset (m	v)	0.00	

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