Sales: 408-778-9952 | General: 408-778-4200 | Fax: 408-778-4300
Sales & Customer Support: sales@markimicrowave.com
Tech Support: support@markimicrowave.com

MEQ14-3ASM

General Description

The MEQ14-3ASM passive MMIC equalizer QFN is an ideal solution for compensating for low pass filtering effects in RF/microwave and high speed digital systems. They provide positive slope from DC to 3GHz. The unique design offers superior return loss to competitors. GaAs MMIC technology provides consistent unit-to-unit performance in a small, low cost form factor.

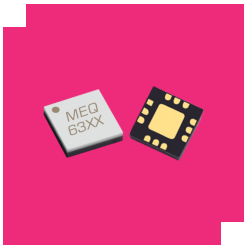
Download s-parameters here

Features

- DC attenuation options from 3 to 12dB
- Typical Insertion Loss 0.9dB at 3GHz
- VSWR < 1.5:1 Over Entire Band

Functional Block Diagram





Electrical Performance Summary

Parameter	Typ	Unit
Frequency Range	0 to 3	GHz
Return Loss	27	dB
Insertion Loss	0.9	dB
Insertion Loss at DC	14.7	dB

Summary only – refer to the Electrical Specifications, Absolute Maximum Ratings, and Recommended Operating Range tables for complete details.

Part Ordering Options

Part Number	Description	Package	Packing Size	Green Status	Product Lifecycle	Export Classification
MEQ14-3ASM	MEQ14-3ASM	QFN	-	REACH RoHS	Pre-release	EAR99
MEQ14-3ASM	Tape and Reel, MEQ14-3ASM	QFN	7"	REACH RoHS	Pre-release	EAR99

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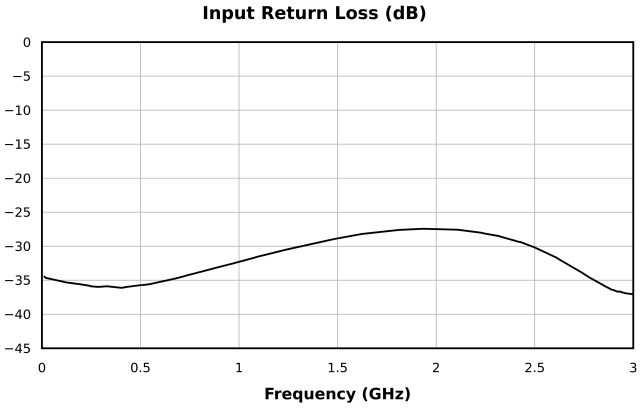
Table Of Contents

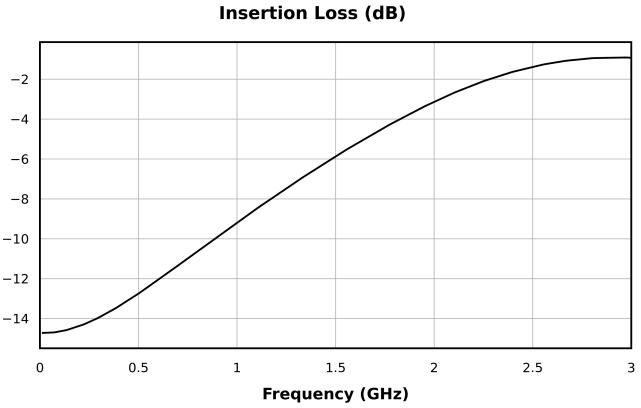
- **Device Overview**
  - General Description
  - Features
  - Functional Block Diagram
  - Electrical Performance Summary
  - Part Ordering Options
- **Specifications**
  - Typical Performance
  - Electrical Specifications
  - Absolute Maximum Ratings
  - Package Information
- **Port Configuration and Functions**
  - Port Diagram
- **Mechanical Data**
  - Outline Drawing
- **Footprint Image**
- **Evaluation Board**
  - Evaluation Board Outline Drawing
- **Revision History**

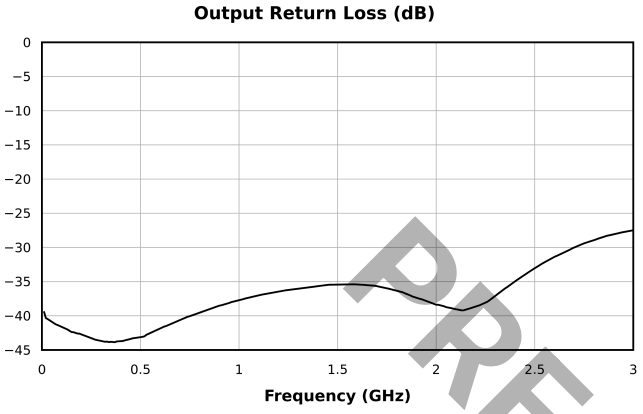
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Typical Performance







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SPECIFICATIONS

Electrical Specifications

The electrical specifications apply at TA=+25°C in a 50Ω system. Typical data shown is for the equalizer in a CH package with a sine wave input applied to port 1. Min and Max limits are guaranteed at TA=+25°C. All bare die are 100% DC tested and visually inspected.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Frequency Range	-	0	3	-	-	-	GHz
Return Loss	Temp = 25°C	0	3	-	27	-	dB
Insertion Loss at DC	Temp = 25°C	0	0	-	14.7	-	dB
Insertion Loss	Temp = 25°C	3	3	-	0.9	-	dB

Equalizer is symmetrical. Reverse measurement is equivalent to forward measurement. All measurements taken in eval board without de-embedding.

Absolute Maximum Ratings

The Absolute Maximum Ratings indicate limits beyond which damage may occur to the device. If these limits are exceeded, the device may be inoperable or have a reduced lifetime.

Parameter	Maximum Rating	Unit
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	°C
Maximum Storage Temperature	125	°C
Port 1 DC Current	40	mA
Maximum Operating Temperature	100	°C
Port 2 DC Current	40	mA
Power Handling, at any Port	30	dBm

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Package Information

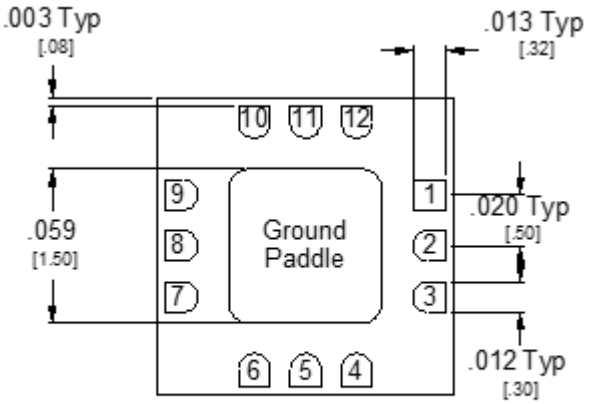
Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A
Dimensions	-	3 x 3 mm
Moisture Sensitivity Level	-	MSL 1

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PORT CONFIGURATION AND FUNCTIONS

Port Diagram

A top-down view of the MEQ12-7A CH package outline drawing is shown below. The MEQ equalizers are symmetrical allowing Port 1 or Port 2 to be used as the input.



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MECHANICAL DATA

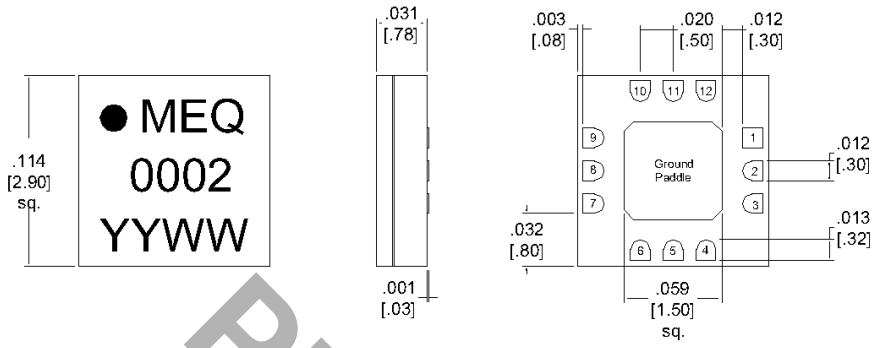
Outline Drawing

Download : Outline 2D Drawing | Outline 3D Drawing

*All Measurements are Typical

PROJECTION INCH [MM]

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVALS
A	Initial Release	10/27/26	KM



Pin #	Pin Function
1	RF Input
2	N/C
3	N/C
4	N/C
5	N/C
6	N/C
7	N/C
8	N/C
9	RF Output
10	N/C
11	N/C
12	N/C

Notes (unless otherwise specified):

1. Substrate material is Ceramic.
2. I/O Leads and Die Paddle is (from base to finish):
   Ni: 1.27um MIN
   Pd: 0.07um MIN
   Au: 0.254um MAX
3. All unconnected pins should be connected to PCB RF ground.

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DO NOT SCALE DRAWING

MATERIAL: Note 1

FINISH: Note 2

Notes:

DRAWN BY	DATE
AT	9/18/26
APPROVED BY	DATE
KK	9/21/26
AN, AC	10/23/26

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Outline
3mm QFN MMIC Equilizer

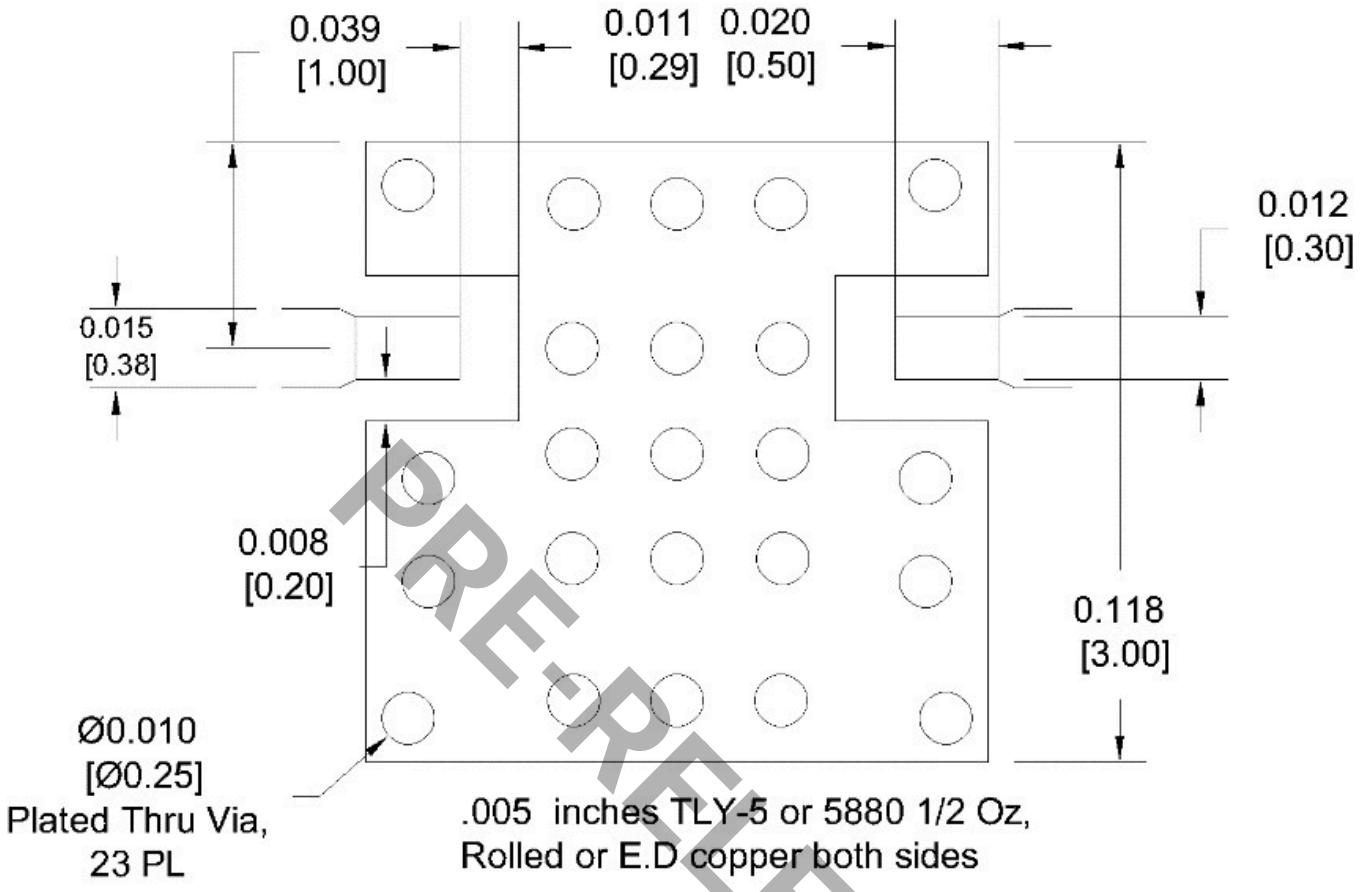
SIZE	CAGE CODE	DWG. NO.
A	0UC32	MEQ14-3ASM

SHEET 1 OF 1

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FOOTPRINT IMAGE

Download : Footprint Drawing



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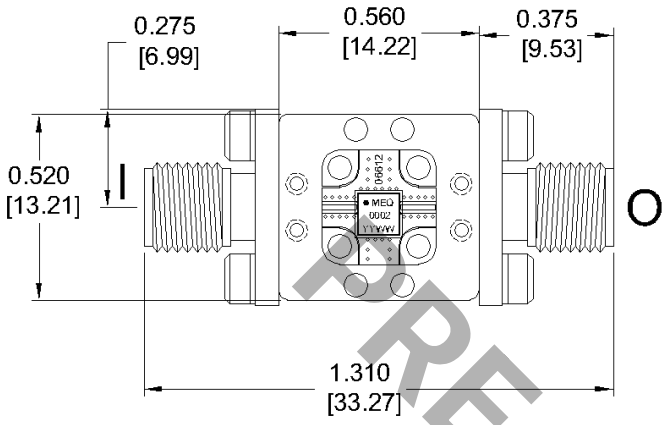
EVALUATION BOARD

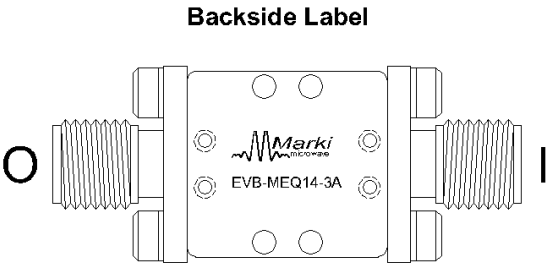
Evaluation Board - Outline Drawing

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVALS
A	Initial Release	10/27/26	KM

PROJECTION: INCH [MM]

Port	Connector Type
I	SMA Female
O	SMA Female
Note: Eval-Package Connectors are not removeable.	





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NOTES:		
	DRAWN BY	DATE
MATERIAL:	AT	9/18/26
	KK	9/21/26
FINISH:	AC, AN	10/23/26
DO NOT SCALE DRAWING		

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Outline
3MM QFN MMIC Equilizer

SIZE	CAGE CODE	DWG. NO.
A	0UC32	EVB-MEQ14-3A

SHEET 1 OF 1

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REVISION HISTORY

Revision Code	Revision Date	Comment
G1	2026-10-22	Initial Draft

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