

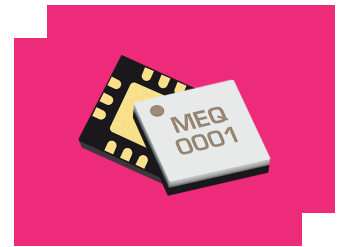
MEQ0-20ASM

Passive GaAs MMIC 20 GHz Equalizer

DEVICE OVERVIEW

General Description

The MEQ0-20ASM passive MMIC equalizer QFN is an ideal solution for compensating for low pass filtering effects in RF/microwave and high speed digital systems. The MEQ0-20ASM provides a through line that is form fit to the "20ASM" family of equalizers. 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.



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Features

- DC attenuation options from 0 to 11dB
- Typical Insertion Loss 1.3 dB at 20GHz

Applications

- RF Transceivers
- High-Speed Data
- Telecom
- Cable Loss Compensation
- Amplifier Compensation

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Green Status	Product Lifecycle	Export Classification
MEQ0-20ASM	Passive GaAs MMIC 20 GHz Equalizer	QFN	REACH RoHS	Released	EAR99

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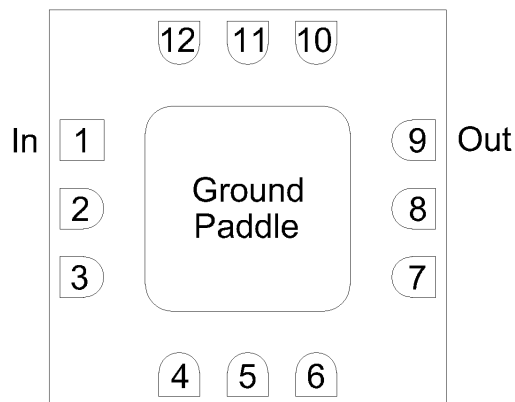
Revision History

Revision Code	Revision Date	Comment
-	2026-03-20	Initial Release

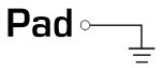
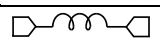
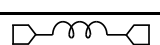
Port Configuration and Functions

Port Diagram

An X-ray top-down view of the MEQ0-20ASM package outline drawing is shown below. The MEQ equalizers are symmetrical allowing Port 1 or Port 2 to be used as the input.



Port Functions

Port	Function	Description	DC Equivalent Circuit
GND	Ground	SM package ground path is provided through the ground paddle.	Pad 
Pin 1	Input/Output	Pin 1 and Pin 9 are DC connected to each other.	
Pin 9	Input/Output	Pin 9 and Pin 1 are DC connected to each other.	

Specifications

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
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	°C

Package Information

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

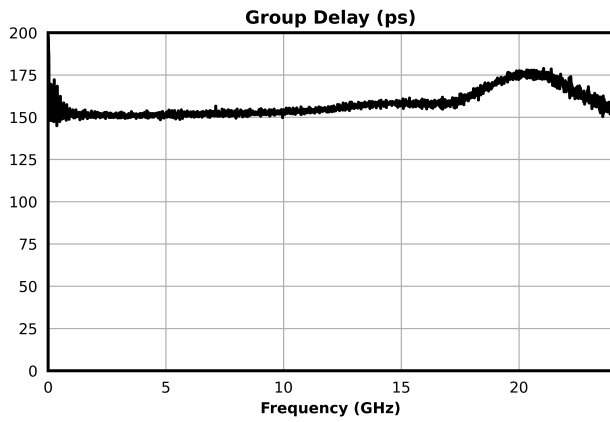
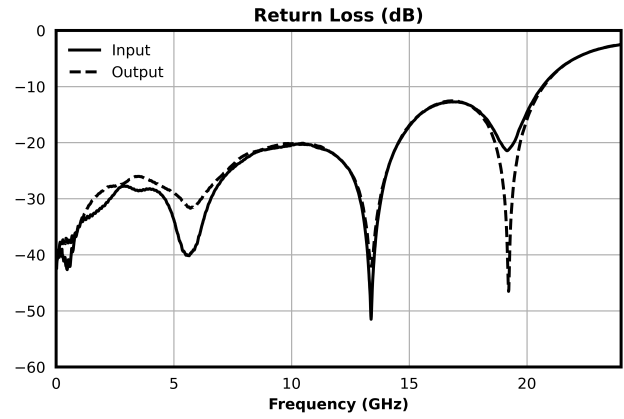
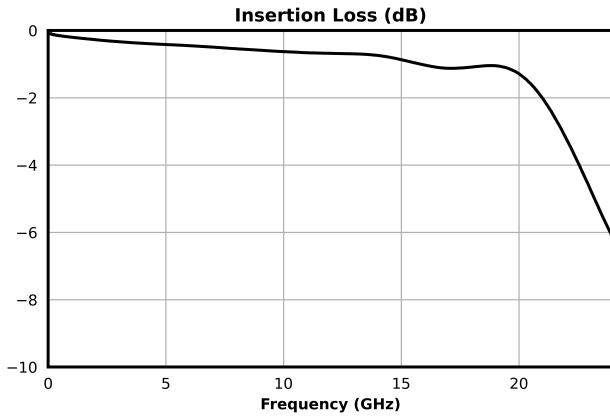
Electrical Specifications

The electrical specifications apply at TA=+25°C in a 50Ω system. Typical data shown is for the equalizer in a SM 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
Insertion Loss at DC	Configuration A, Temp = 25°C	0	0	-	0.1	-	dB
Insertion Loss	Configuration A, Temp = 25°C	10	10	-	0.6	-	dB
Insertion Loss	Configuration A, Temp = 25°C	20	20	-	1.3	-	dB
Equalization Value	Configuration A, Temp = 25°C	0	20	-	1.2	-	dB
Return Loss	Configuration A, Temp = 25°C	0	20	-	23	-	dB
Group Delay	Configuration A, Temp = 25°C	0	20	-	154	-	ps

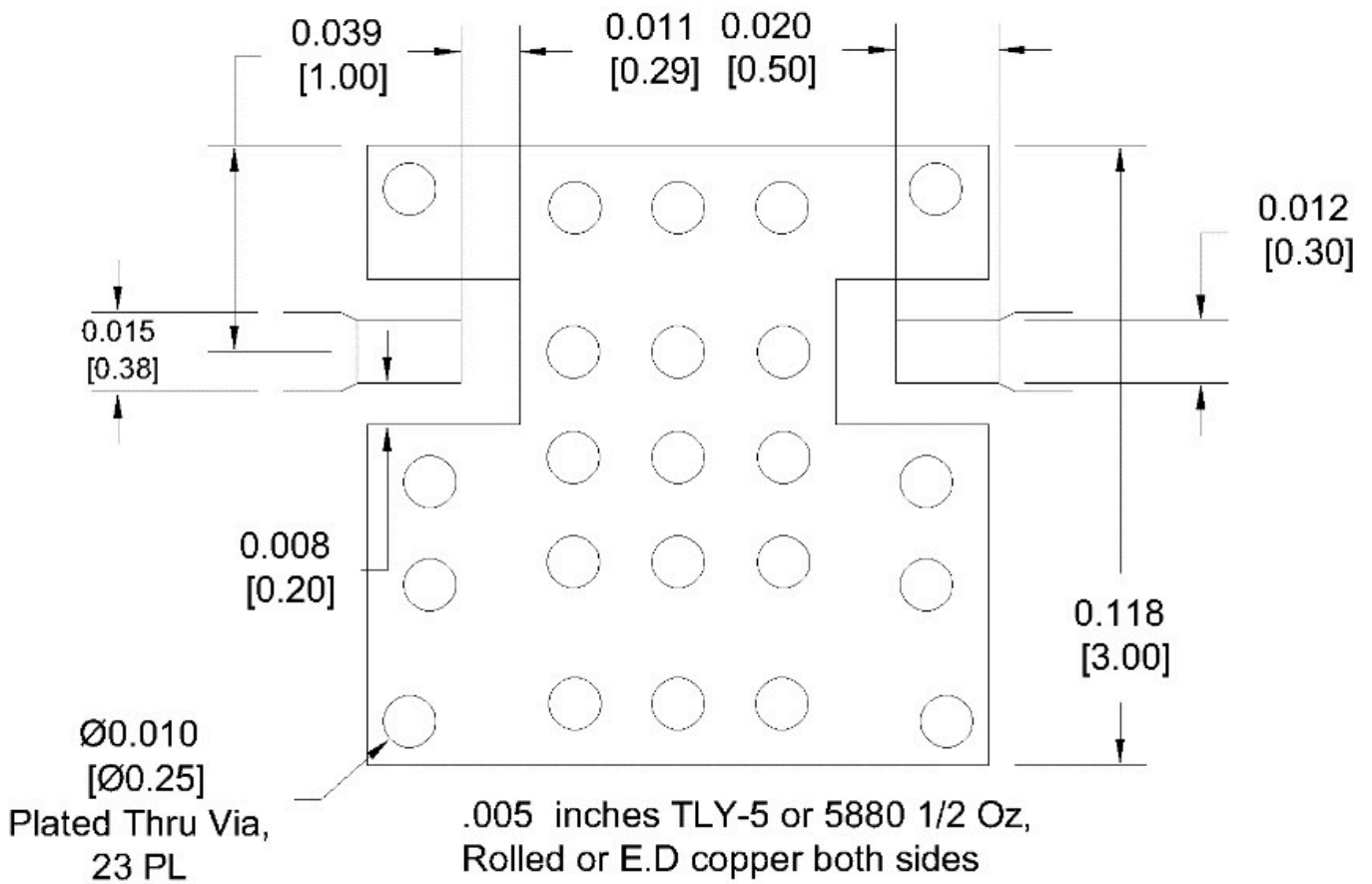
Equalizer is symmetrical. Reverse measurement is equivalent to forward measurement. All measurements taken in eval board without de-embedding.

Typical Performance Plot



Footprint Image

Download : [Footprint Drawing](#)



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