

MEQ10-60ABH

Passive GaAs MMIC DC-60 GHz 10 dB Equalizer

DEVICE OVERVIEW

General Description

The MEQ10-60ABH passive MMIC equalizer is an ideal solution for compensating for low pass filtering effects in RF/microwave and high speed digital systems. This equalizer provides 7.8 dB positive slope equalization from DC to 60 GHz with a DC attenuation value of 10 dB and a 50-ohm match maintained over the entire operating range. GaAs MMIC technology provides consistent unit-to-unit performance in a small, low cost form factor. Contact the factory for connectorized versions of our other MEQ products.



[Download s-parameters here](#)

Features

- DC attenuation of 10.1 dB
- Typical Insertion Loss 2.5 dB at 60 GHz
- Typical 22 dB Return Loss over the entire band

Applications

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

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Connectors	Green Status	Product Lifecycle	Export Classification
MEQ10-60ABH	Passive GaAs MMIC DC-60 GHz 10 dB Equalizer	BH	-	REACH RoHS	Released	EAR99

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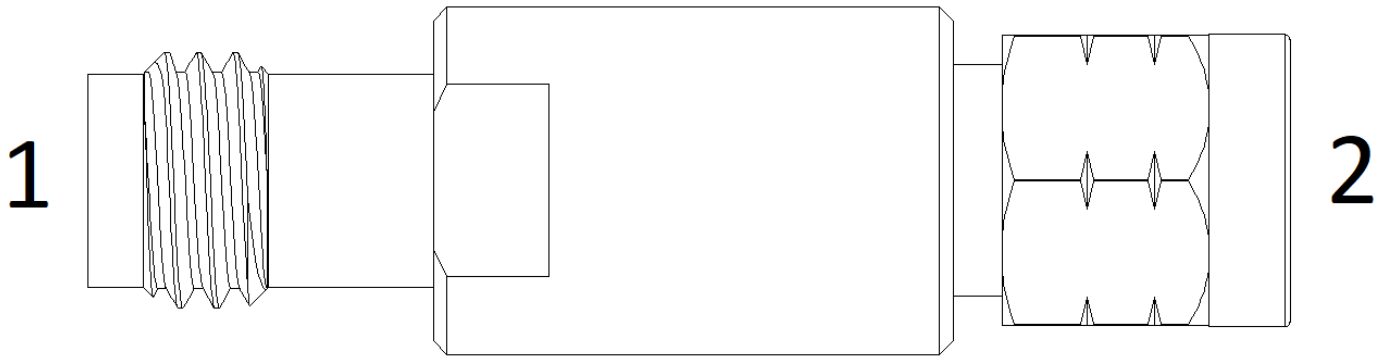
Revision History

Revision Code	Revision Date	Comment
-	2025-06-13	Initial Release




Port Configuration and Functions

Port Diagram

The MEQ equalizers are symmetrical allowing Port 1 or Port 2 to be used as the input.



Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
GND	Ground	-	BH package ground is provided through metal housing and outer coax conductor.	GND 
Port 1	Input/Output	1.85F	Port 1 is DC connected to ground through a resistor. DC block is required if voltage present.	P1 
Port 2	Input/Output	1.85M	Port 2 is DC connected to ground through a resistor. DC block is required if voltage present.	P2 

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
Port 1 DC Current	22	mA
Port 2 DC Current	22	mA

Package Information

Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A
Dimensions	-	32.8 x 9.5 mm

MEQ10-60ABH

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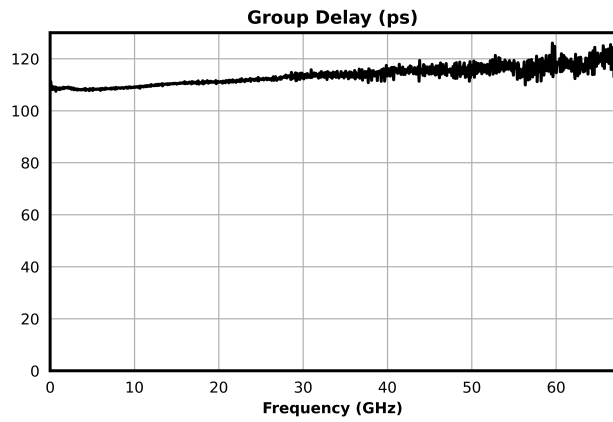
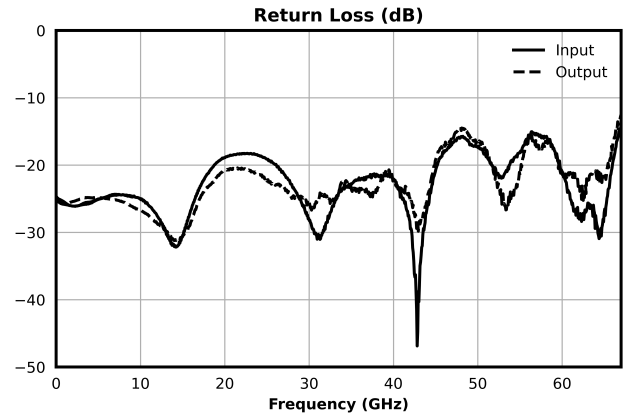
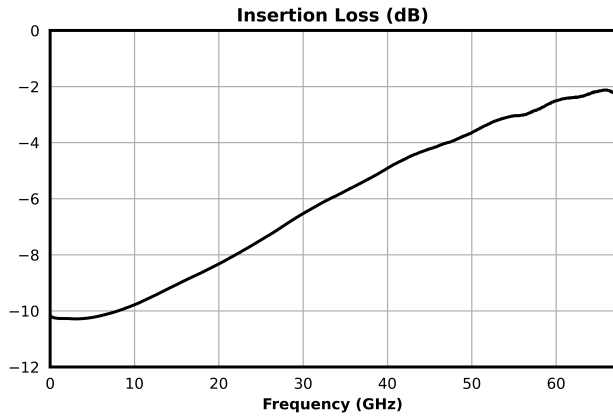
Electrical Specifications

The electrical specifications apply at TA=+25°C in a 50Ω system. Typical data shown is for the equalizer in a BH package with a sine wave input applied to port 1.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Insertion Loss at DC	Configuration A, Temp = 25°C	0	0	-	10.1	-	dB
Insertion Loss	Configuration A, Temp = 25°C	30	30	-	6.5	-	dB
Insertion Loss	Configuration A, Temp = 25°C	60	60	-	2.5	-	dB
Equalization Value ¹	Configuration A, Temp = 25°C	0	60	-	7.8	-	dB
Return Loss	Configuration A, Temp = 25°C	0	60	-	22	-	dB
Group Delay	Configuration A, Temp = 25°C	0	60	-	113	-	ps

^[1] Equalization Value = Max Insertion Loss - Min Insertion Loss

Typical Performance Plot



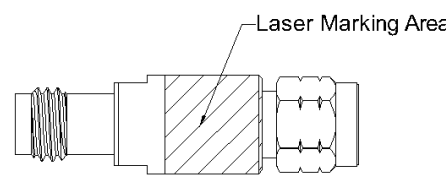
Mechanical Data

Outline Drawing

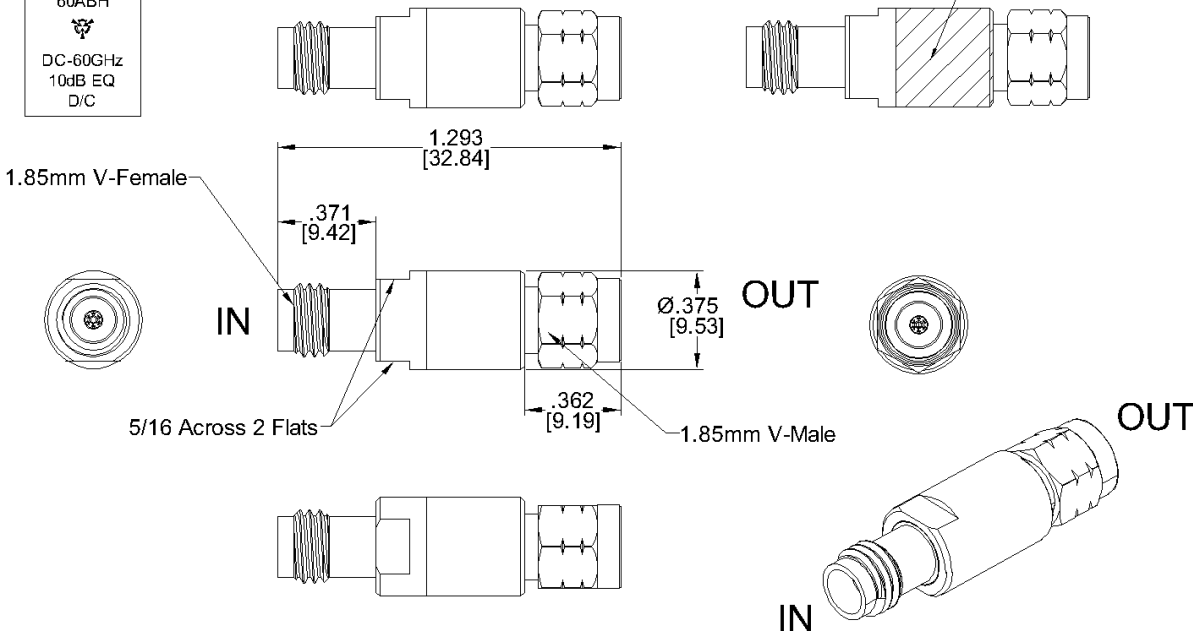
Download : [Outline 2D Drawing](#)

***All Dimensions are typical**

Laser Marking on Part:



MEQ10
60ABH
DC-60GHz
10dB EQ
D/C



1.85mm V-Female IN

1.293 [32.84]

.371 [9.42]

5/16 Across 2 Flats

Ø.375 [9.53]

OUT

.362 [9.19]

1.85mm V-Male OUT

Port #	Setup	Ω	Connector Type
In	In to Gnd	53k	1.85mm Female
Out	Out to Gnd	53k	1.85mm Male
I to O	In to Out	46k	1.85mm F-M

PROJECTION		REVISIONS			
INCH [MM]		REV	DESCRIPTION	DATE	APPROVALS
		B	ECN 207-10-17-2025	11/13/25	AT

NOTES:

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES AND DECIMALS THEREOF
TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
FRACTIONS DECIMALS ANGLES
FRACTIONS DECIMALS ANGLES
FRACTIONS DECIMALS ANGLES

DRAWN BY		DATE	
AR		4/7/05	
LOG		DATE	
LOG		5/15/05	
OG		DATE	
OG		5/15/25	

RoHS Compliant (SN96.5/AG3.5) Components/Assembly

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Outline
Bullet Housing Equalizer

SIZE: **A** CAGE CODE: **0UC32** DWG. NO: **MEQ10-60ABH**

SCALE: 2:1 SHEET 1 OF 1

DO NOT SCALE DRAWING

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