

MEQ4-60ABH

Passive GaAs MMIC DC-60 GHz 4 dB Equalizer

DEVICE OVERVIEW

General Description

The MEQ4-60ABH 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 2.6 dB positive slope equalization from DC to 60 GHz with a DC attenuation value of 4 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](#)

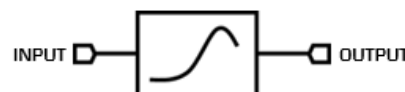
Features

- DC attenuation of 3.9 dB
- Typical Insertion Loss of 1.6 dB at 60 GHz
- Typical 25 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
MEQ4-60ABH	Passive GaAs MMIC DC-60 GHz 4 dB Equalizer	BH	-	REACH RoHS	Released	EAR99

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Revision History

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

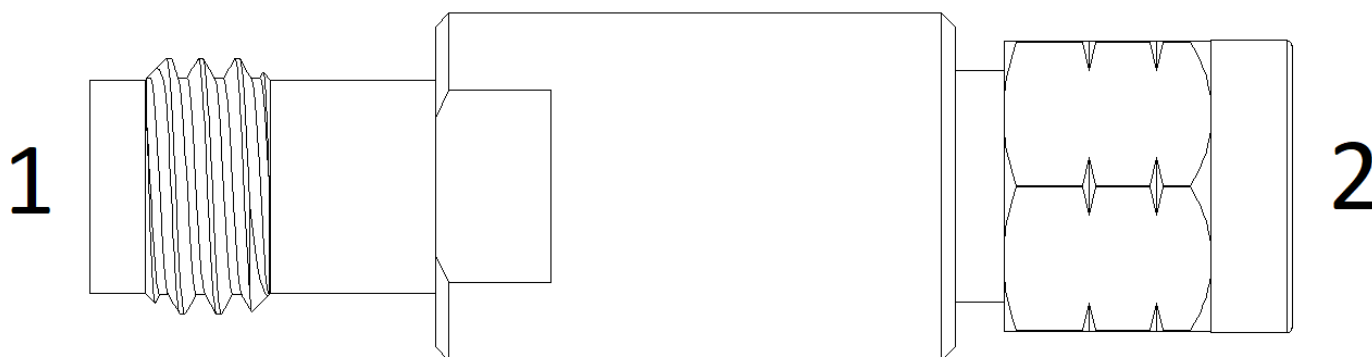
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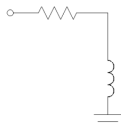
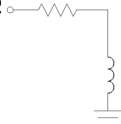
Port Configuration and Functions

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	Equivalent Circuit for Package
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 

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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	10	mA
Port 2 DC Current	10	mA

Package Information

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

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.

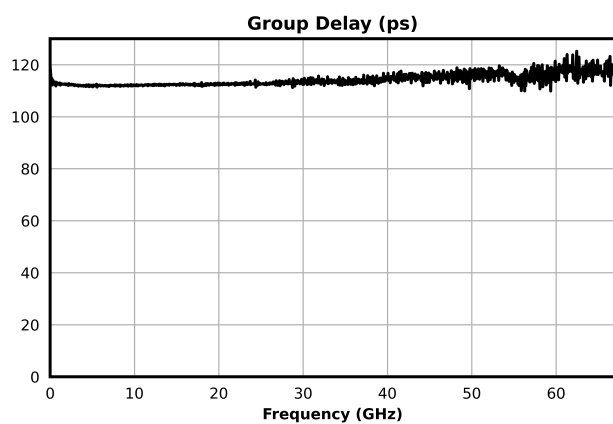
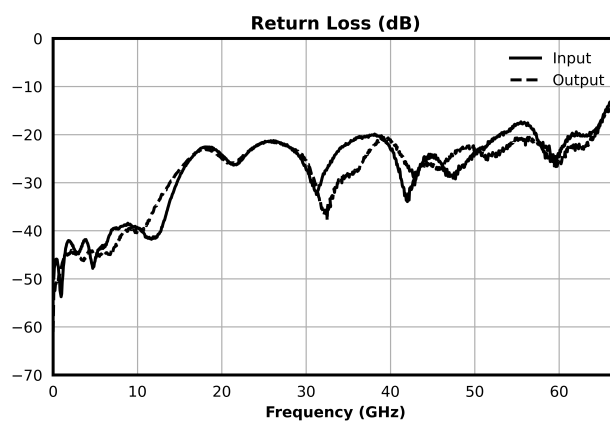
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Insertion Loss at DC	Configuration A, Temp = 25°C	0	0	-	3.9	-	dB
Insertion Loss	Configuration A, Temp = 25°C	30	30	-	3.5	-	dB
Insertion Loss	Configuration A, Temp = 25°C	60	60	-	1.6	-	dB
Equalization Value ¹	Configuration A, Temp = 25°C	0	60	-	2.6	-	dB
Return Loss	Configuration A, Temp = 25°C	0	60	-	25	-	dB
Group Delay	Configuration A, Temp = 25°C	0	60	-	113	-	ps

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

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Typical Performance Plot



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