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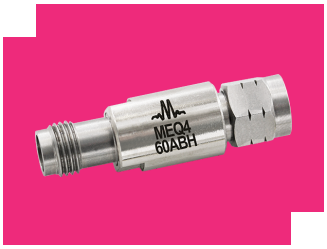
MEQ4-60ABH

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

Table Of Contents

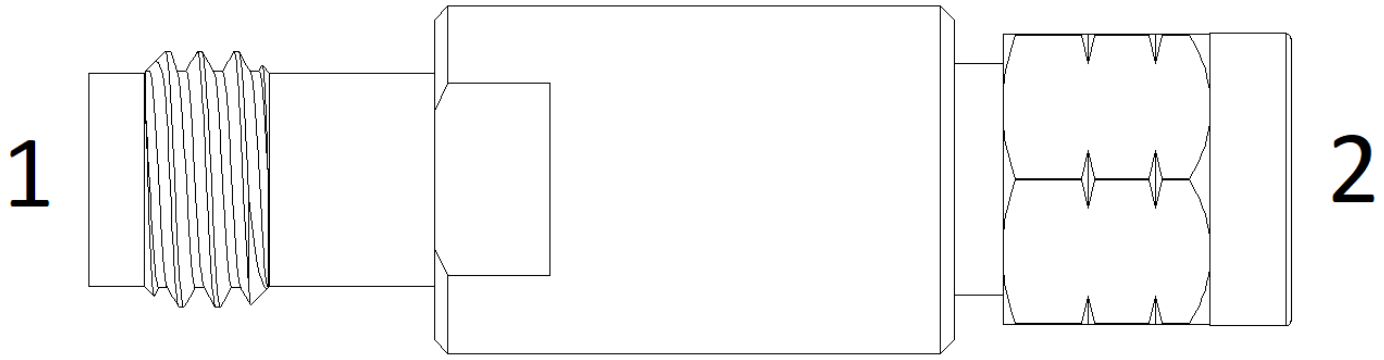
Revision History

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

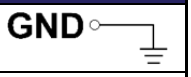
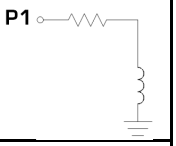
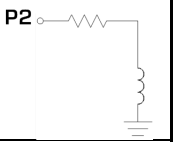
Port Configuration and Functions

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.	
Port 1	Input/Output	1.85F	Port 1 is DC connected to ground through a resistor. DC block is required if voltage present.	
Port 2	Input/Output	1.85M	Port 2 is DC connected to ground through a resistor. DC block is required if voltage present.	

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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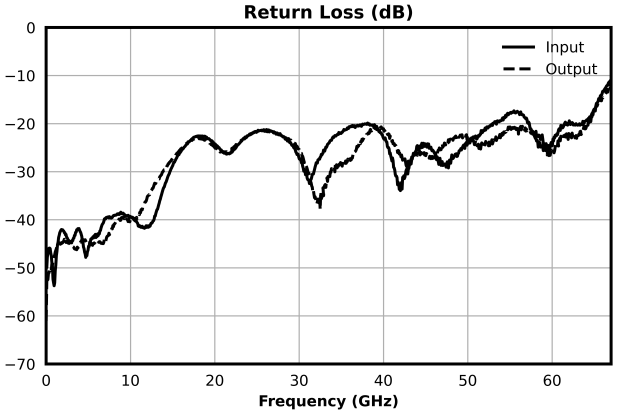
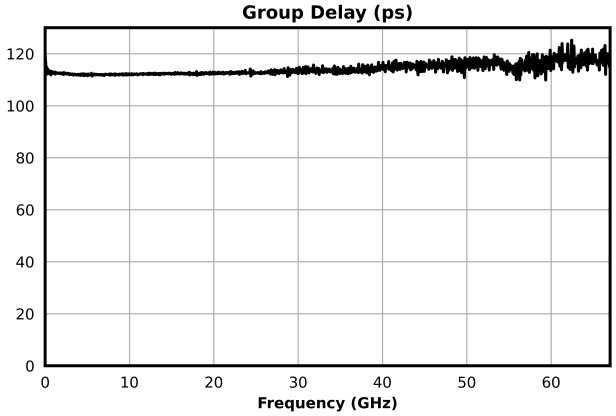
Typical Performance Plot

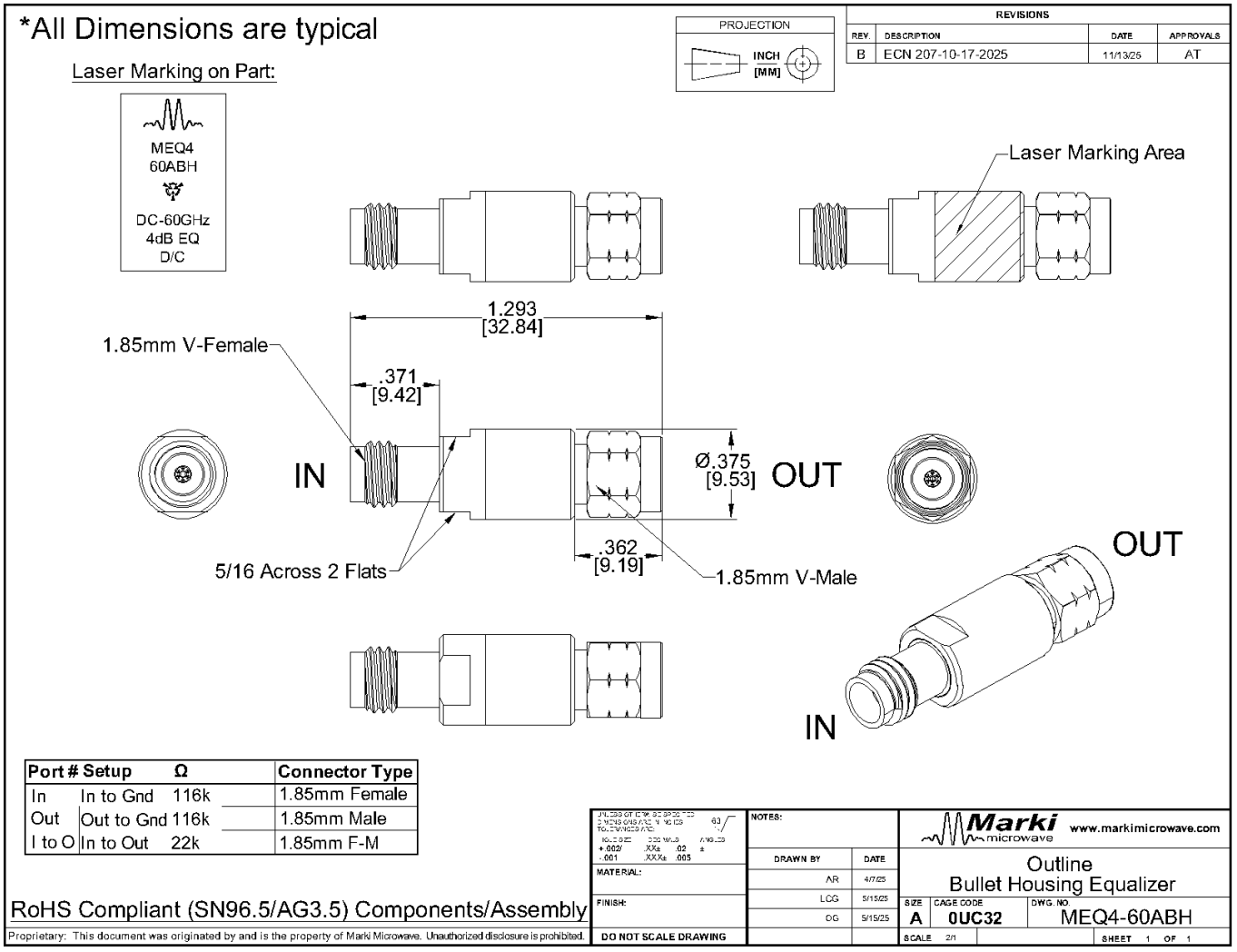




Mechanical Data

Outline Drawing

Download : Outline 2D Drawing



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