

HLM-40ABH

High Power 40GHz Limiter

DEVICE OVERVIEW

General Description

The HLM-40ABH is a wide bandwidth GaAs Schottky diode signal limiter featuring high IP3 and medium power handling. It offers low insertion loss and low return loss from DC through Ka band and has a typical 1dB compression point of 9dBm. Its medium power handling makes it ideal for protecting sensitive components and for applications requiring high linearity.



[Download s-parameters here](#)

Features

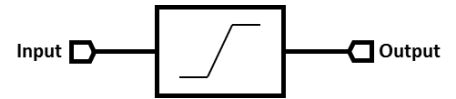
- DC to 40 GHz limiter
- 2W CW Power Handling @ 2 GHz
- Bullet Housing

Applications

- RF Transceivers
- Test and Measurement Equipment
- SATCOM

Functional Block

Diagram



Part Ordering Options

Part Number	Description	Package	Connectors	Green Status	Product Lifecycle	Export Classification
HLM-40ABH	High Power 40GHz Limiter	BH	<u>Standard</u>	REACH RoHS	Pre-release	EAR99

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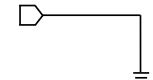
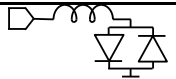
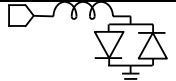
Revision History

Revision Code	Revision Date	Comment
G0	2024-05-13	Pre-release

PRE-RELEASE

Port Configuration and Functions

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.	
IN	Input	2.92F	The input port is diode connected for the BH package.	
OUT	Output	2.92M	The output port is diode connected for the BH package.	

PRE-RELEASE

Specifications

Absolute Maximum Ratings

Parameter	Maximum Rating	Unit
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	°C
RF Power Handling, CW @ 2GHz, 25°C	2	W

Package Information

Parameter	Details	Rating
Weight	Package name: BH	9.2g
Dimensions	-	30.1 x 9.5 mm

PRE-RELEASE

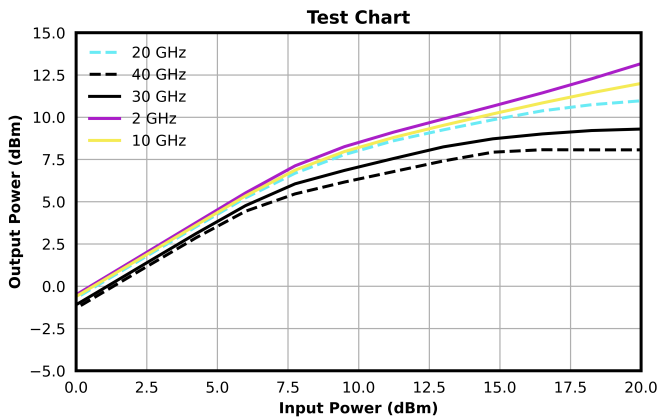
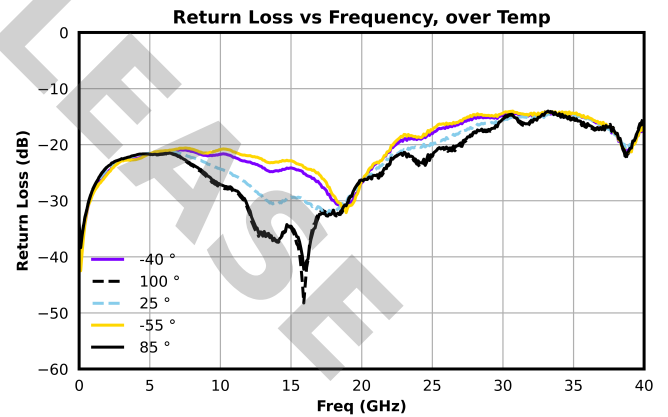
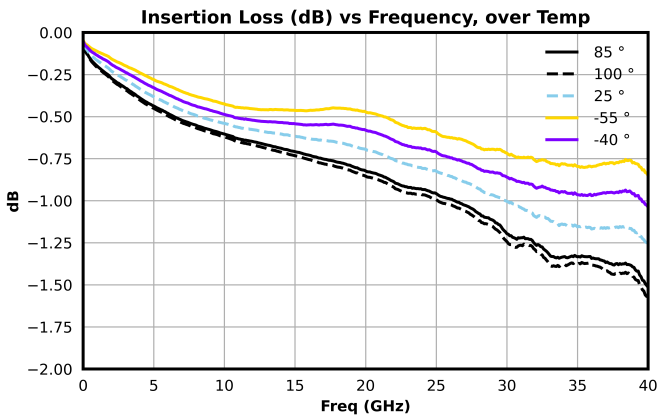
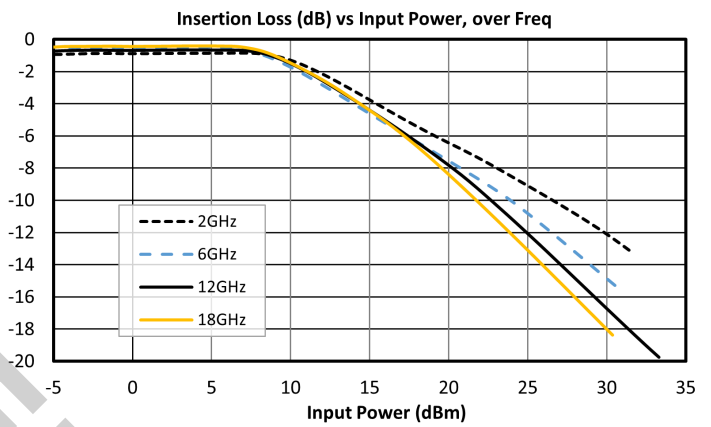
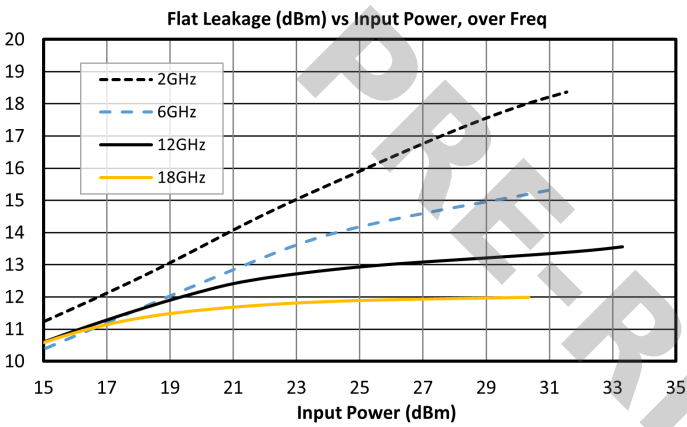
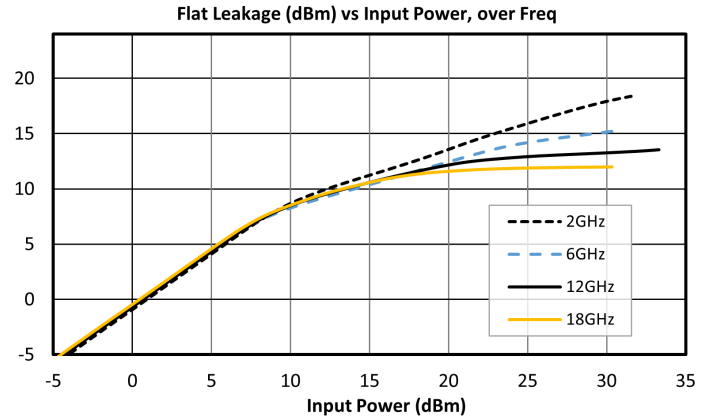
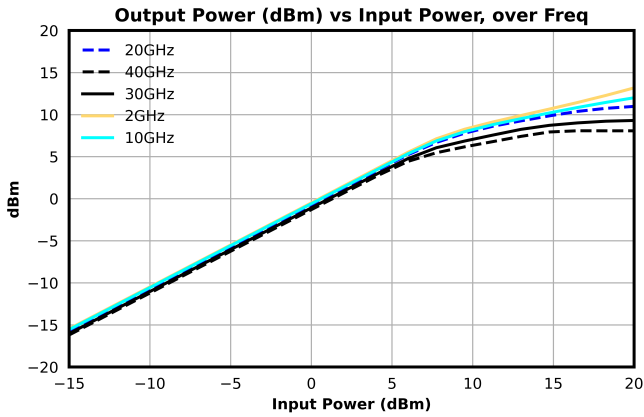
Electrical Specifications

The electrical specifications apply at TA=+25°C in a 50Ω system. Typical data shown is for the connectorized BH-package limiter unless otherwise specified. Linear Specifications valid for input power up to the 0.1dB compression point.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Insertion Loss	-	0	40	-	0.7	-	dB
Return Loss	-	0	40	-	22	-	dB

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Generated Performance Plot



Mechanical Data

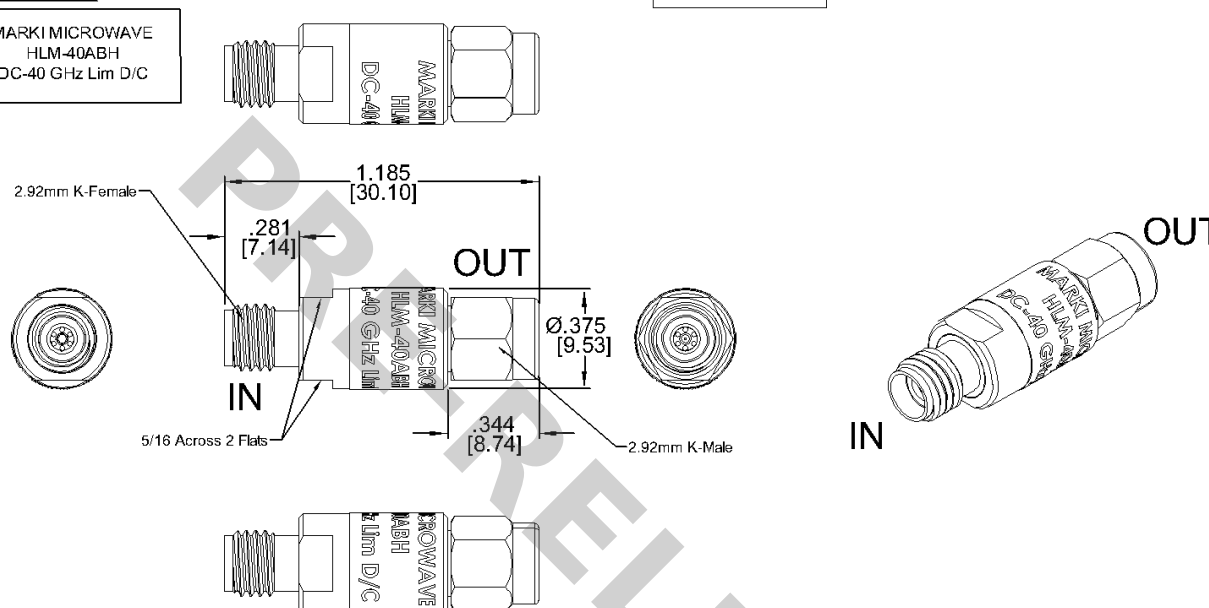
Outline Drawing

Download : [Outline 2D Drawing](#)

***All Dimensions are typical!**

Label Design:

MARKI MICROWAVE
 HLM-40ABH
 DC-40 GHz Lim D/C



Dimensions:
 Total Length: 1.185 [30.10]
 Inlet Thread: 2.92mm K-Female
 Inlet Flange: .281 [7.14]
 Body Diameter: Ø.375 [9.53]
 Body Length: .344 [8.74]
 Outlet Thread: 2.92mm K-Male
 Flange Spacing: 5/16 Across 2 Flats

PROJECTION		REVISIONS			
INCH [MM]		REV.	DESCRIPTION	DATE	APPROVALS
		1	Initial Design: Eng. Release-1	5/22/2024	OG

Port #	Setup	Ω / VDC	Connector Type
In	In to Gnd	Open Circuit	2.92mm Female
Out	Out to Gnd	Open Circuit	2.92mm Male
In	In to Gnd	0.72V \pm .030	2.92mm Female
Out	Out to Gnd	0.72V \pm .030	2.92mm Male

<p>RoHS Compliant (SN96.5/AG3.5) Components/Assembly</p> <p><small>Proprietary: This document was originated by and is the property of Marki Microwave. Unauthorized disclosure is prohibited.</small></p>	<p>NOTES:</p> <p>DRAWN BY: OG DATE: 5/22/2024</p> <p>MATERIAL:</p> <p>FINISH:</p> <p>DO NOT SCALE DRAWING</p>	<p style="text-align: right;">Marki microwave 345 Digital Drive Morgan Hill, CA 95037</p> <p style="text-align: center;">Outline HLM-40ABH</p> <p>SIZE: A CAGE CODE: 0UC32 DWG. NO: HLM-40ABH</p> <p>SCALE: 2:1 SHEET 1 OF 1</p>
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