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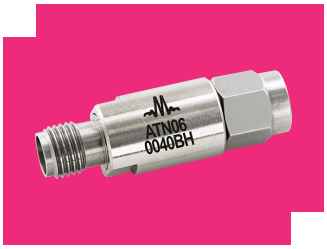
ATN06-0040BH

Passive GaAs MMIC DC - 40 GHz 6 dB Attenuator

DEVICE OVERVIEW

General Description

The ATN06-0040BH is a GaAs MMIC attenuator in an inline connectorized bullet housing package. The ATN06-0040BH provides a nominal 6.5 dB attenuation over a DC to 40 GHz operating range. The attenuator delivers accurate, repeatable performance with an excellent 30 dB return loss for test and measurement, and system level applications. GaAs MMIC technology provides consistent unit-to-unit performance. A 50-ohm match is maintained over the entire operating frequency range.



Download s-parameters here

Features

- Operating Range, DC to 40 GHz
- Attenuation, 6.5 dB Typical
- Return Loss, 30 dB Typical
- Inline Bullet Housing

Applications

- 5G
- Test Equipment
- Precision Characterization
- Airborne Applications
- Amplitude Matching

Functional Block Diagram

Part Ordering Options

Part Number	Description	Package	Connectors	Green Status	Product Lifecycle	Export Classification
ATN06-0040BH	Passive GaAs MMIC DC - 40 GHz 6 dB Attenuator	BH	-	RoHS REACH	Released	EAR99

Table Of Contents

Revision History

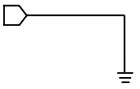
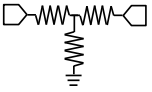
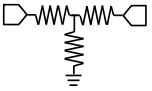
Revision Code	Revision Date	Comment
-	2024-11-18	Initial Release

Port Configuration and Functions

Port Diagram

The package outline drawing is shown below.

Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
GND	Ground	-	Ground for the BH package is provided through the metal housing and outer coax conductor.	
IN	Input/Output	2.92F	IN and OUT are DC connected to each other and ground through a T-network of resistors.	
OUT	Input/Output	2.92M	IN and OUT are DC connected to each other and ground through a T-network of resistors.	

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
DC Current	100	mA
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	°C
RF Power Handling	2	W

Package Information

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

Electrical Specifications

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

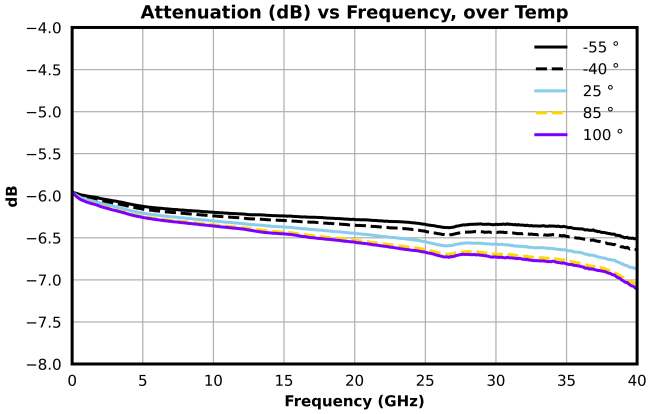
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Attenuation	Configuration A, Temp = 25°C	0	40	-	6.45	-	dB
Attenuation Accuracy [1]	Configuration A, Temp = 25°C	0	40	-	0.45	-	dB
Impedance	Configuration A, Temp = 25°C	0	40	-	50	-	Ω
Return Loss	Configuration A, Temp = 25°C	0	40	15	30	-	dB

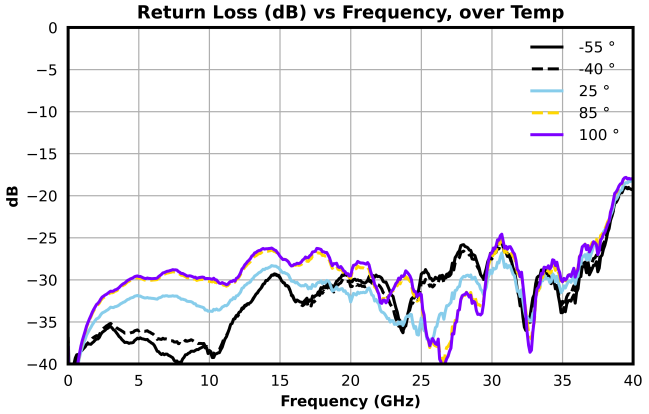
[1] Attenuation Accuracy = Median Value of ABS(Measured Attenuation - Nominal Attenuation)

ATN06-0040BH

Passive GaAs MMIC DC - 40 GHz 6 dB Attenuator

Typical Performance Plots (over temp)

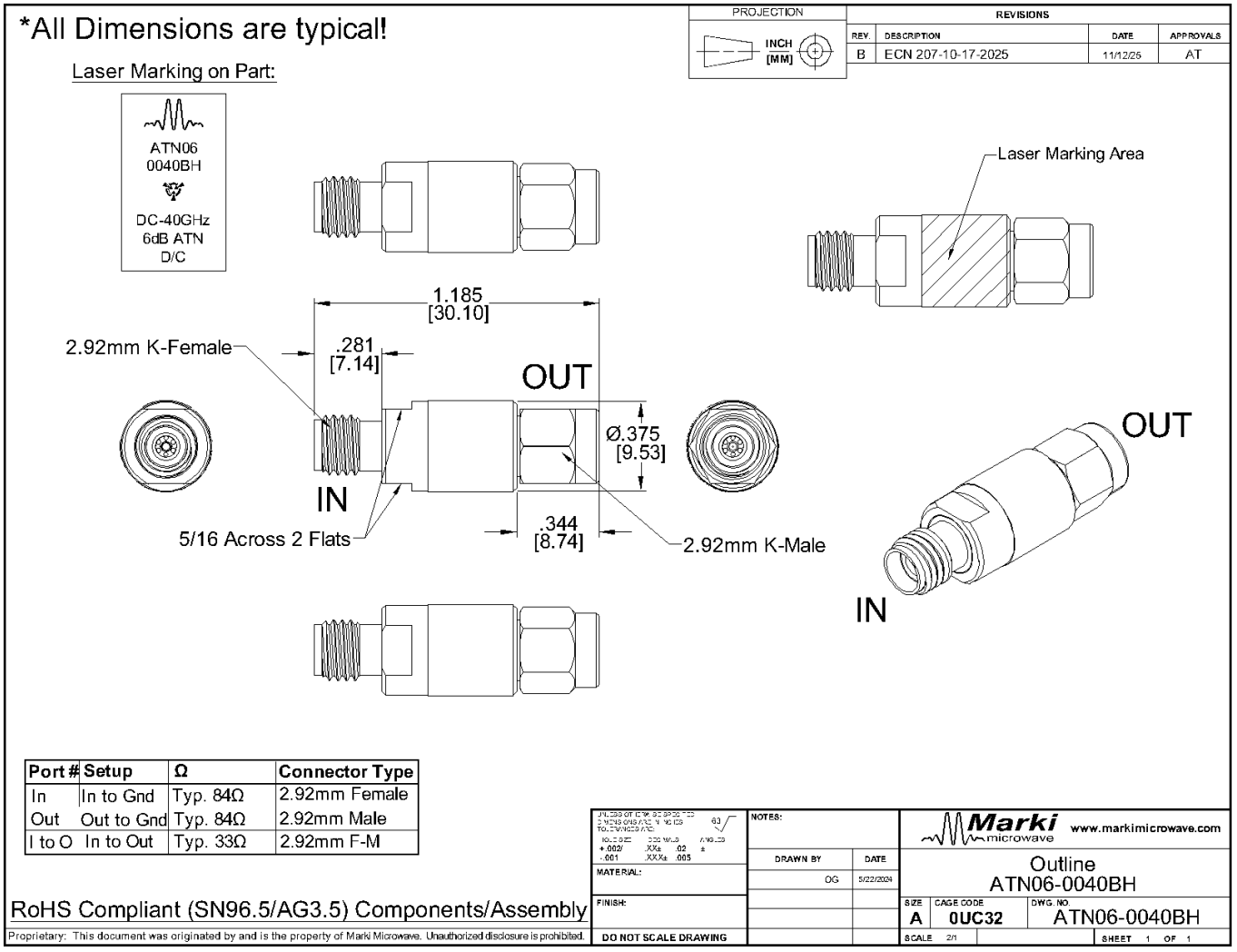




Mechanical Data

Outline Drawing

Download : Outline 2D Drawing



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