

ATN20-0040BH

Passive GaAs MMIC DC - 40 GHz 20dB Attenuator

DEVICE OVERVIEW

General Description

The ATN20-0040BH is a GaAs MMIC in an in-line connectorized bullet housing package. The ATN20-0040BH provides a nominal 20dB attenuation over a DC-40GHz operating range. This attenuator is an ideal solution for attenuating a signal and can be used in a wide range of applications. GaAs MMIC technology provides consistent unit-to-unit performance in a small, low-cost form factor. A 50-ohm match is maintained over the entire operating frequency range.

[Download s-parameters here](#)

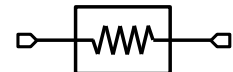
Features

- 20 dB attenuation from DC to 40 GHz
- 27 dB typical return loss over operating band
- 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
ATN20-0040BH	Passive GaAs MMIC DC - 40 GHz 20dB Attenuator	BH	-	RoHS REACH	Pre-release	EAR99

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Revision History

Revision Code	Revision Date	Comment
G1	2025-04-28	Pre-Release

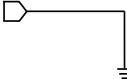
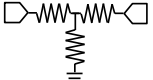
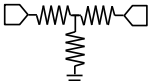
Port Configuration and Functions

Port Diagram

The package outline drawing is shown below.



Port Functions

Port	Function	Connector Type	Description	Equivalent Circuit for Package
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.	

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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
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

Power Handling measured with instantaneous CW of 2 GHz.

Package Information

Parameter	Details	Rating
Dimensions	-	30.1 x 9.5 mm

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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.

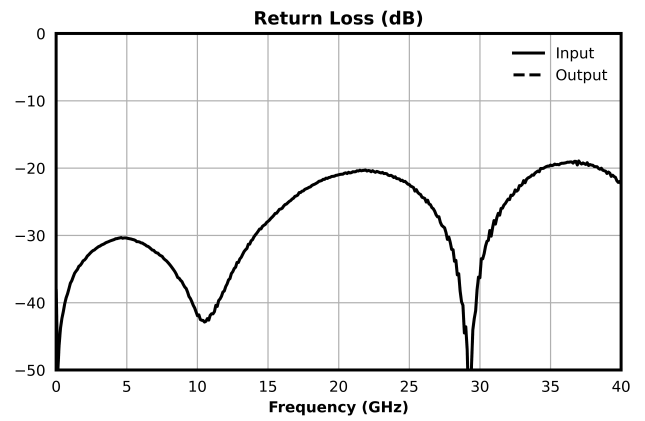
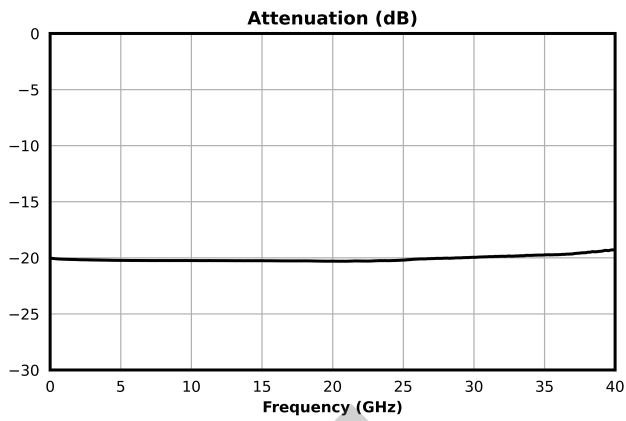
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Attenuation	Configuration A, Temp = 25°C	0	40	-	20.2	-	dB
Return Loss	Configuration A, Temp = 25°C	0	40	-	27	-	dB
Attenuation Flatness	Configuration A, Temp = 25°C	0	40	-	0.3	-	dB

PRE-RELEASE

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Typical Performance Plot



PRE-RELEASE

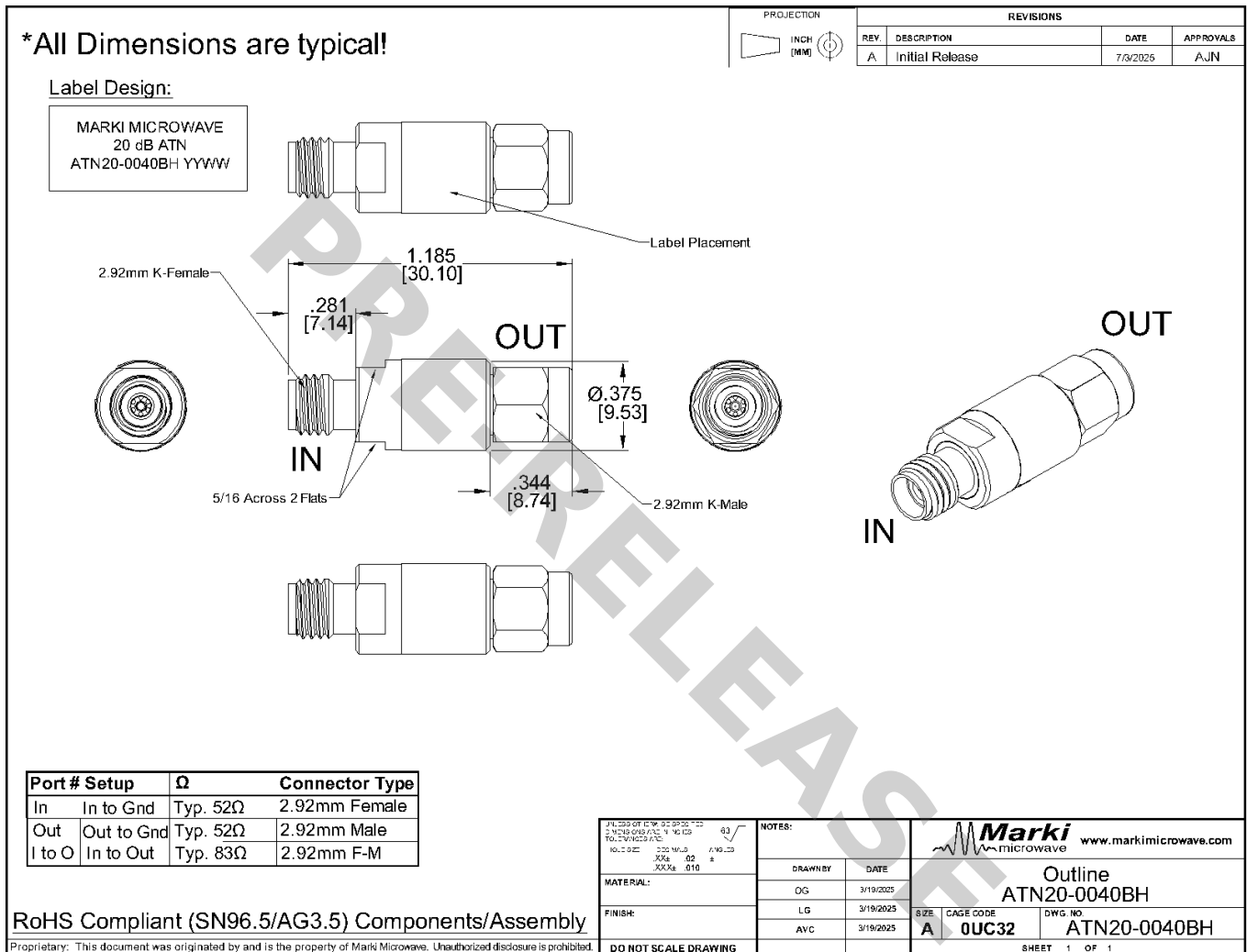
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Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#)



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