

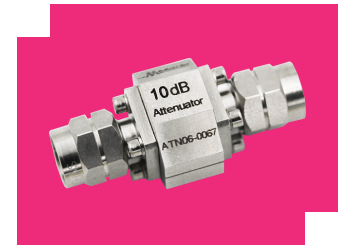
# ATN10-0067-3HV

## GaAs MMIC DC to 67GHz Attenuator

### DEVICE OVERVIEW

#### General Description

The ATN10-0067 is a family of precision GaAs MMIC fixed 10dB attenuators. These attenuators are an ideal solution for attenuating a signal and they can be used in a wide range of applications. They are ideal for test equipment’s protection and signal overload prevention in various RF circuitry. A 50-ohm match is maintained over the entire operating frequency range.



#### Features

- 10 dB attenuation DC to 67GHz
- Return loss: typical 22 dB over the entire band

#### Applications

- 5G
- Automotive Radar
- Test Equipment
- Amplitude Matching
- Precision Characterization
- Wireless Backhaul

#### Functional Block Diagram



#### Part Ordering Options

Part Number	Description	Package	Connectors	Green Status	Product Lifecycle	Export Classification
<a href="#">ATN10-0067</a>	GaAs MMIC DC to 67GHz Attenuator	Module	<a href="#">Standard</a>	RoHS REACH	Released	EAR99
<a href="#">ATN10-0067-2HV</a>	GaAs MMIC DC to 67GHz Attenuator	Module	<a href="#">Standard</a>	RoHS REACH	Released	EAR99
<a href="#">ATN10-0067-3HV</a>	GaAs MMIC DC to 67GHz Attenuator	Module	<a href="#">Standard</a>	RoHS REACH	Released	EAR99

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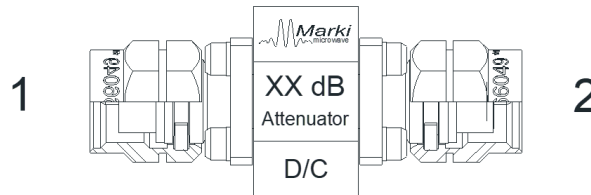
- **Device Overview**
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**Revision History**

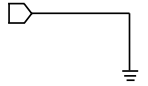
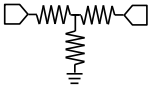
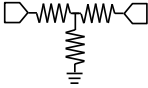
Revision Code	Revision Date	Comment
-	2020-11-01	Datasheet Initial Release

## Port Configuration and Functions

### Port Diagram



### Port Functions

Port	Function	Connector Type	Description	Equivalent Circuit for Package
GND	Ground	-	Package ground provided through the metal housing and outer coax conductor.	
Port 1	Input/Output	-	Port 1 and Port 2 are DC connected to each other and ground through a T-network of resistors.	
Port 2	Input/Output	-	Port 1 and Port 2 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 at any Port	150	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**

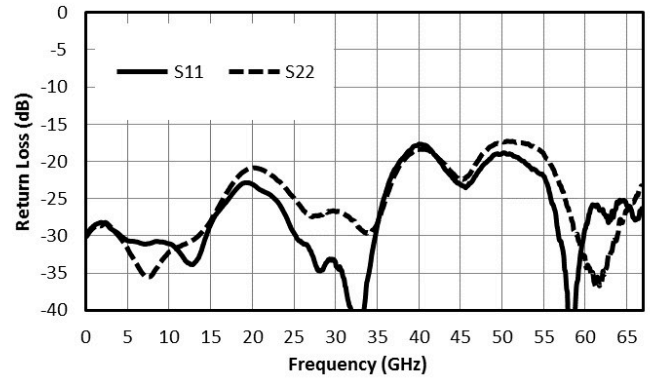
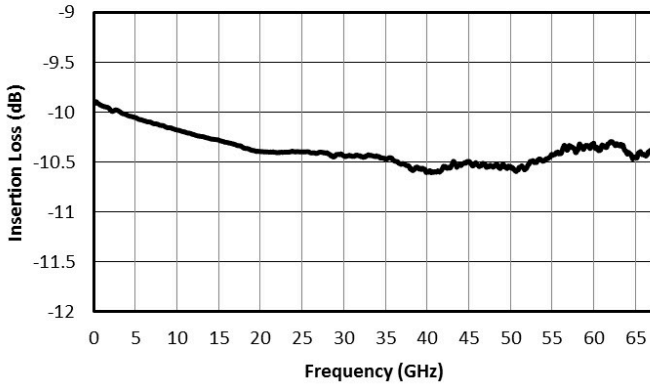
Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A
Weight	Package name: Module	15.2g
Dimensions	-	14.30 x 32.45mm

**Electrical Specifications**

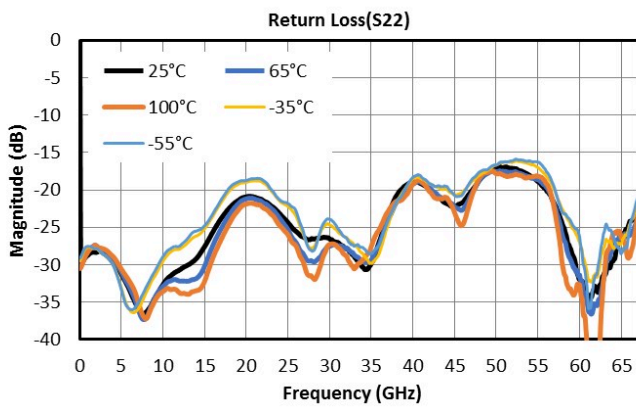
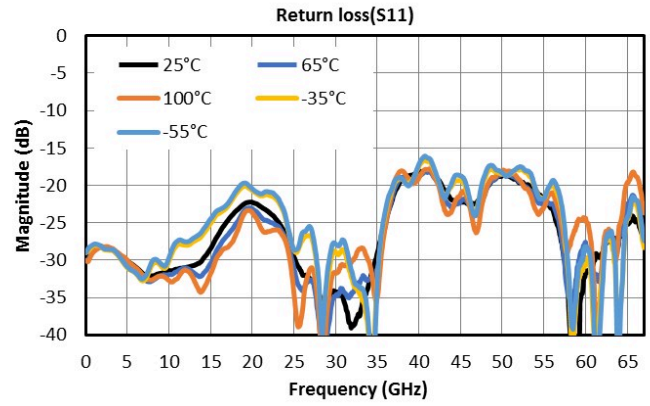
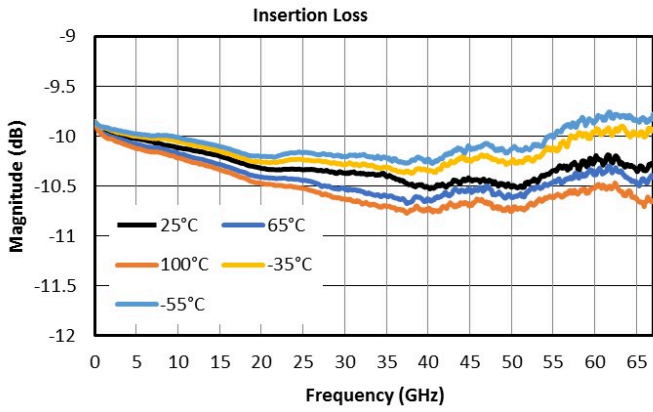
The electrical specifications apply at TA=+25°C in a 50Ω system. Typical data shown is for the attenuator with a sine wave input applied to port 1.

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Attenuation	-	35	67	-	10.5	-	dB
Attenuation	-	0	35	-	10.2	-	dB
Attenuation Accuracy	-	0	35	-	0.3	-	dB
Attenuation Accuracy	-	35	67	-	0.5	-	dB
Return Loss	-	0	35	-	27	-	dB
Return Loss	-	35	67	-	22	-	dB

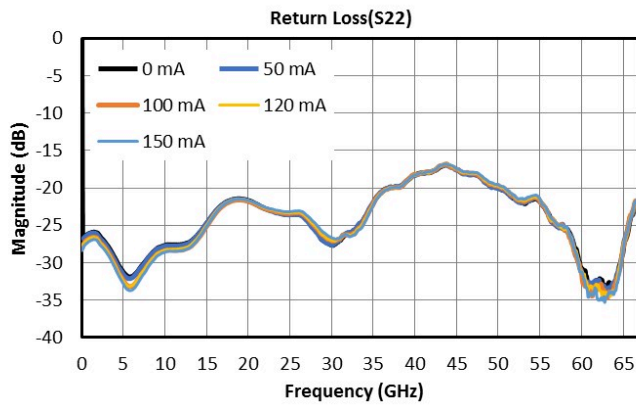
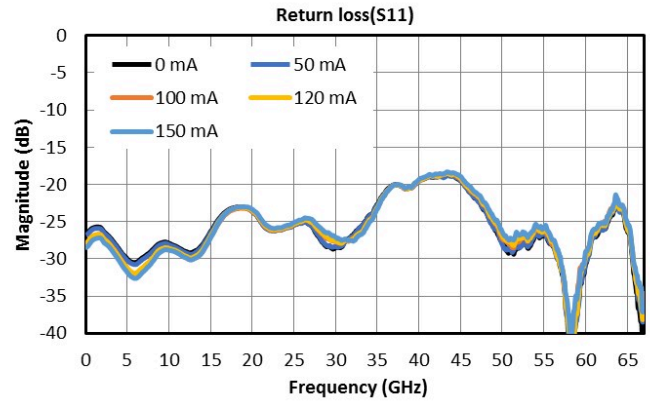
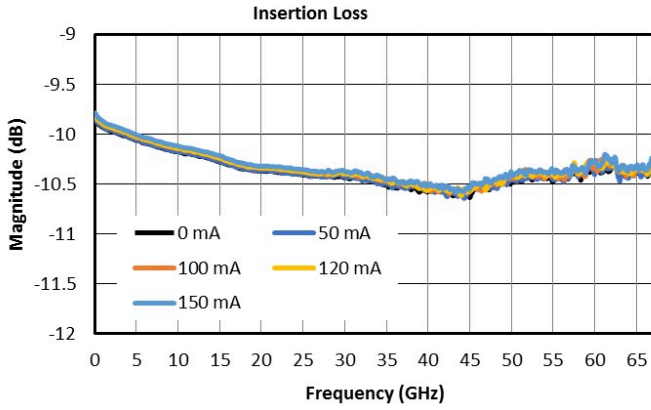
**Typical Performance Plots**



**Performance Over Temperature**



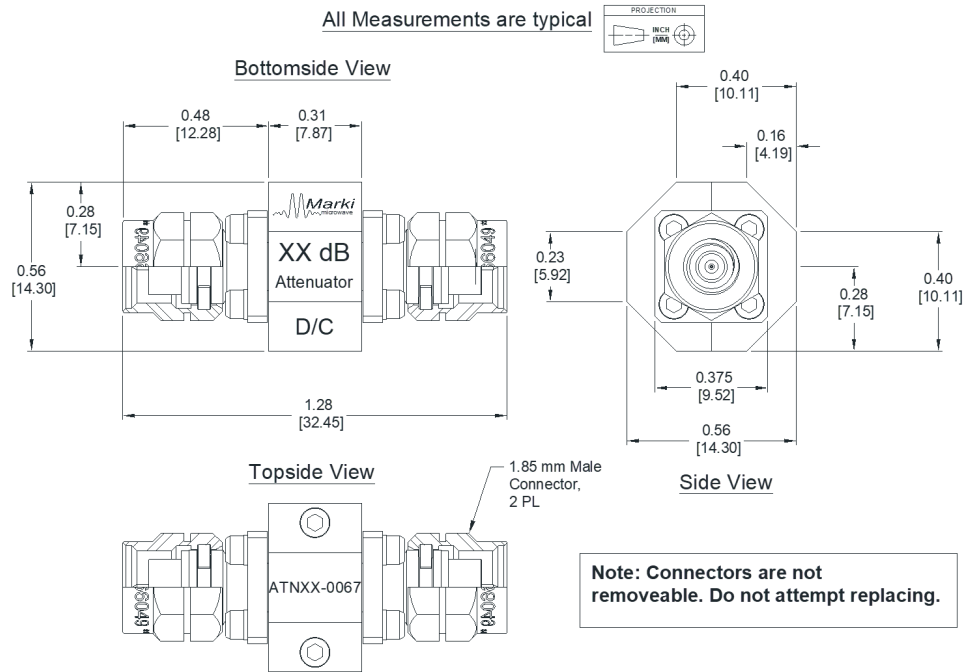
**Performance Over Current**



**Mechanical Data**

**Outline Drawing**

Download : [Outline 2D Drawing](#) | [Outline 3D Drawing](#) | [Outline 3D STP](#)



Note1: RoHS Compliant Assembly

Note2: Use 9/16 fixed wrench to hold in place body of M housing while tightening connectors to 25Ncm

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