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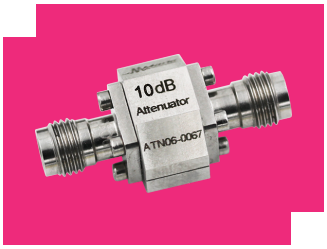
ATN10-0067

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.



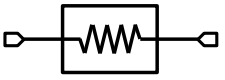
Features

- 10 dB attenuation DC to 67GHz
- Return loss: typical 22 dB over theentire 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
ATN10-0067-2HV	GaAs MMIC DC to 67GHz Attenuator	Module	Standard	RoHS REACH	Released	EAR99
ATN10-0067	GaAs MMIC DC to 67GHz Attenuator	Module	Standard	RoHS REACH	Released	EAR99
ATN10-0067-3HV	GaAs MMIC DC to 67GHz Attenuator	Module	Standard	RoHS REACH	Released	EAR99

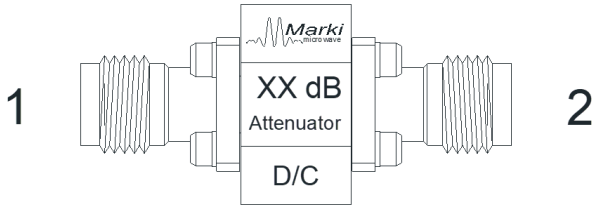
Table Of Contents

Revision History

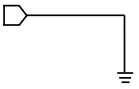
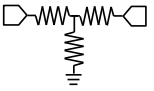
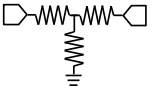
Revision Code	Revision Date	Comment
-	2020-11-01	Datasheet Initial Release

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

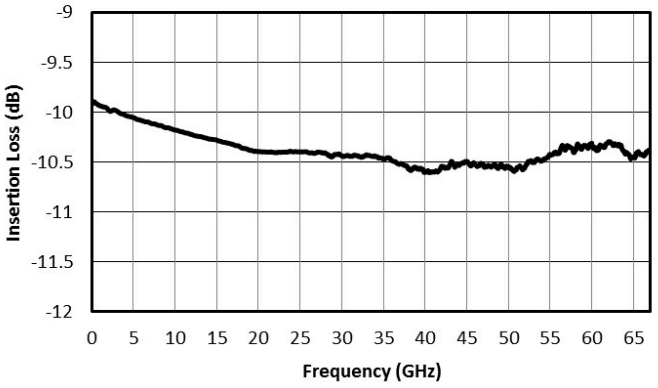
Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A
Weight	Package name: Module	15.2g
Dimensions	-	14.30 x 30.58mm

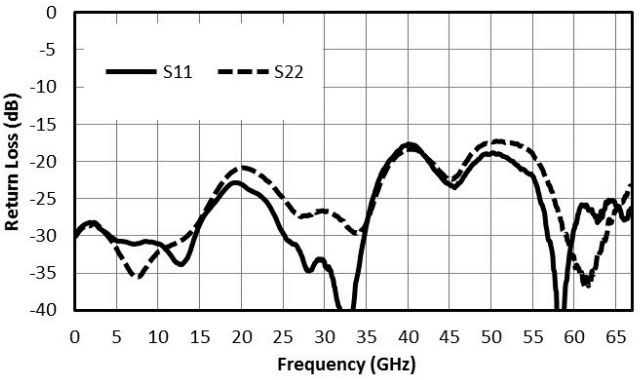
Electrical Specifications

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.

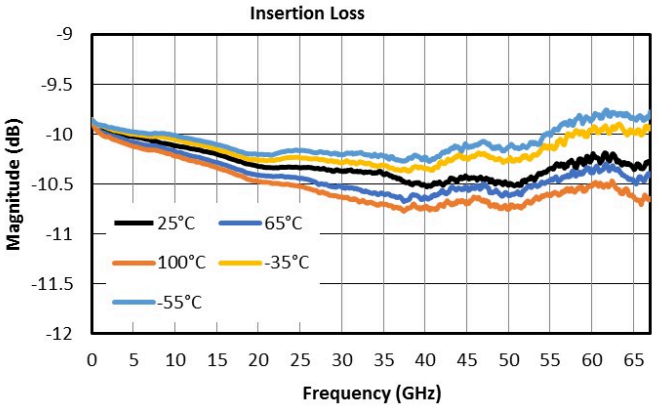
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Attenuation	-	35	67	-	10.5	-	dB
Attenuation	-	0	35	-	10.2	-	dB
Attenuation Accuracy	-	0	35	-	0.3	-	dB
Attenuation Accuracy	-	35	67	-	0.5	-	dB
Return Loss	-	0	35	-	27	-	dB
Return Loss	-	35	67	-	22	-	dB

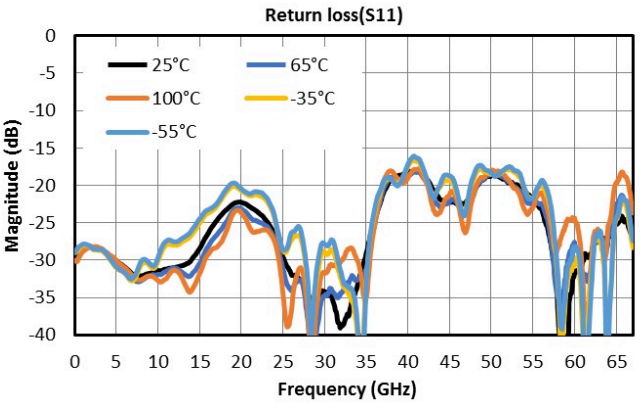
Typical Performance Plots

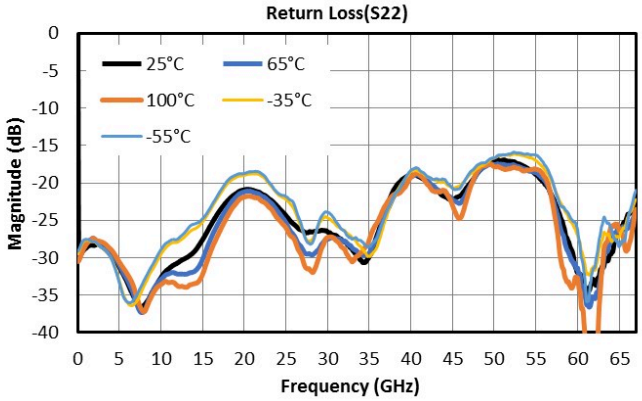




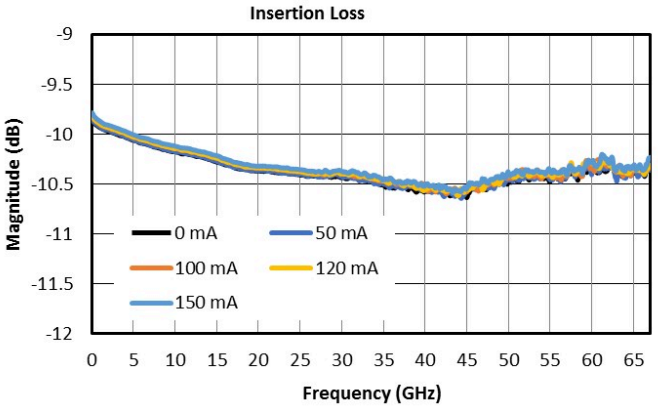
Performance Over Temperature

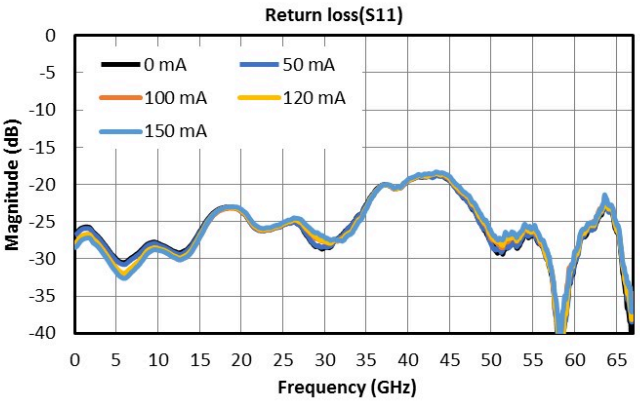


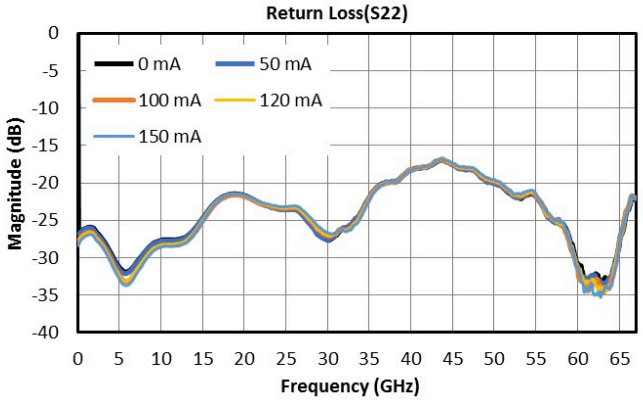




Performance Over Current



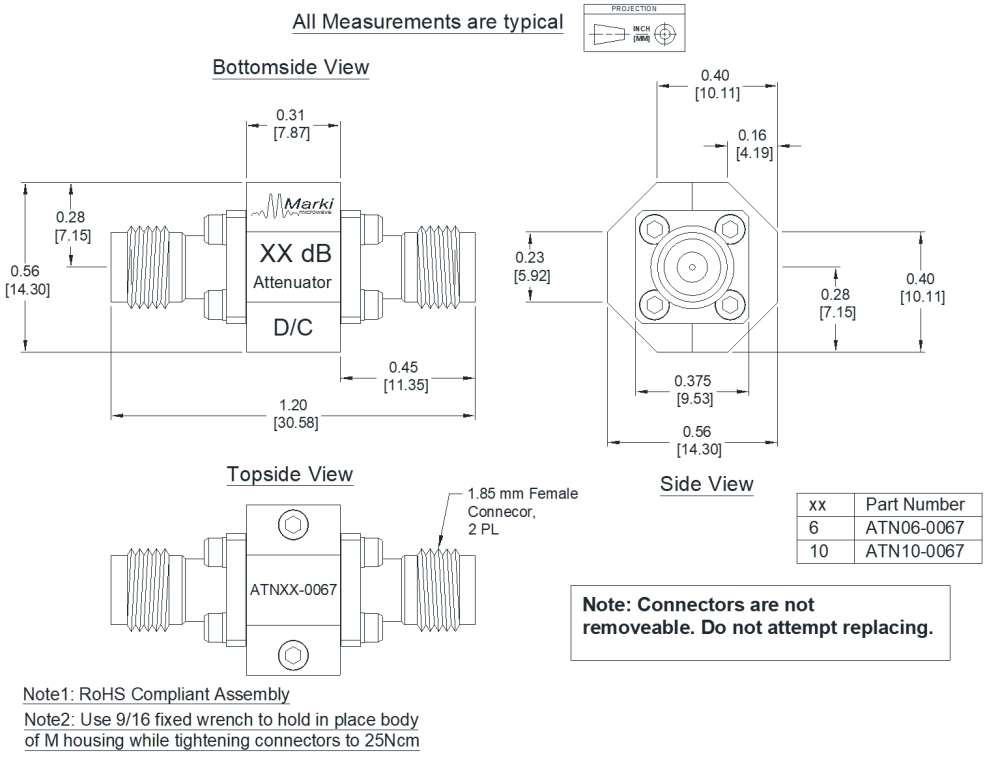




Mechanical Data

Outline Drawing

Download : Outline 2D Drawing | Outline 3D Drawing | Outline 3D STP



xx	Part Number
6	ATN06-0067
10	ATN10-0067

Note: Connectors are not removeable. Do not attempt replacing.

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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