

Data Sheet

SHF ATT67 A



67 GHz Attenuator



Description

The SHF ATT67 A is a compact, high-performance, RoHS compliant attenuator with a bandwidth exceeding 67 GHz¹ and a very flat frequency response.

Its small footprint makes it particularly suitable for differential applications, where signals entering or leaving close-spaced connectors need to be attenuated simultaneously. Furthermore, dedicated mounting holes on the back side allow secure installation on a mounting plate for stable system integration.

A broad range of attenuation values is available within the same series (ATT67 A | xx dB).

Features

- Small and lightweight
- Flat frequency response
- Low reflection

Configurations

- VFVM: 1.85 mm female to 1.85 mm male
- Other configurations on request

Product Code Example

- SHF ATT67 A | 20 dB | VFVM
Brand: SHF
Type: 67 GHz Attenuator
Revision: A
Typ. Insertion loss: 20 dB
*Connector Configuration:
Port 1 - 1.85 mm female
Port 2 - 1.85 mm male*

¹ Due to the intrinsic geometry of V connectors, energy could couple to high-order modes for frequencies above 67 GHz.



Specifications²

Parameter	Unit	Symbol	Min	Typ	Max	Conditions
Absolute Maximum Ratings						
Power handling	W	$P_{in,max}$			1	
Mechanical Characteristics						
Operating temperature	°C	T_{case}	10		50	
Connectors						1.85 mm
Dimensions	mm				18 42.6 9	Width Length Height
Weight	g			15		

² These specifications are valid for the VFVM configuration.

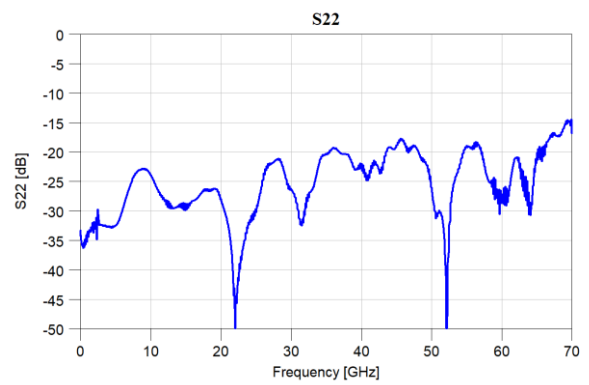
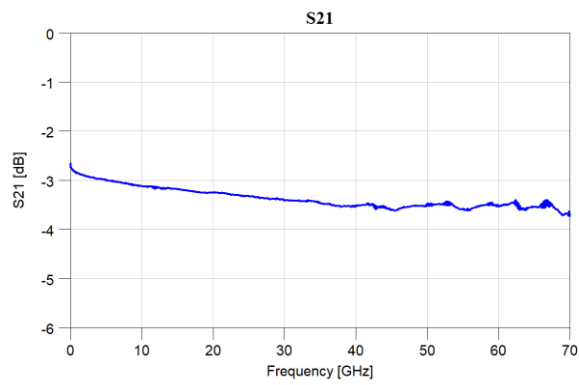
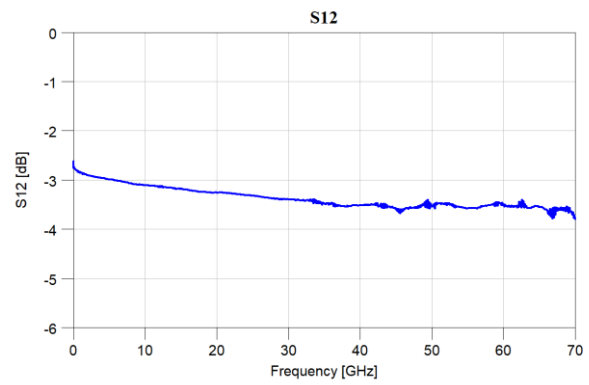
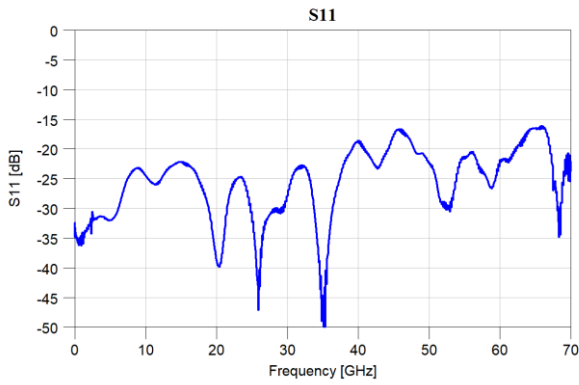


Parameter	Unit	Symbol	Min	Typ	Max	Conditions
Electrical Characteristics (at 25°C case temperature, unless otherwise specified)						
Maximum Operating Frequency	GHz	f_{max}	67			
Minimum Operating Frequency		f_{min}			DC	
Input Impedance	Ω			50		
Power handling	W	$P_{in,max}$			1	
SHF ATT67 A 3 dB						
Insertion Loss	dB	IL	2	3	4	
Return Loss	dB	RL	20 17 15 12 10			$f < 10$ GHz 10 GHz $< f < 20$ GHz 20 GHz $< f < 35$ GHz 35 GHz $< f < 50$ GHz 50 GHz $< f < 67$ GHz
SHF ATT67 A 6 dB						
Insertion Loss	dB	IL	5	6	7	
Return Loss	dB	RL	20 17 15 12 10			$f < 10$ GHz 10 GHz $< f < 20$ GHz 20 GHz $< f < 30$ GHz 30 GHz $< f < 50$ GHz 50 GHz $< f < 67$ GHz
SHF ATT67 A 10 dB						
Insertion Loss	dB	IL	9	10	11	
Return Loss	dB	RL	20 17 15 12 10			$f < 10$ GHz 10 GHz $< f < 20$ GHz 20 GHz $< f < 30$ GHz 30 GHz $< f < 50$ GHz 50 GHz $< f < 67$ GHz
SHF ATT67 A 20 dB						
Insertion Loss	dB	IL	19	20	21	
Return Loss	dB	RL	20 17 15 12 10			$f < 10$ GHz 10 GHz $< f < 20$ GHz 20 GHz $< f < 30$ GHz 30 GHz $< f < 50$ GHz 50 GHz $< f < 67$ GHz



Typical S-Parameters³

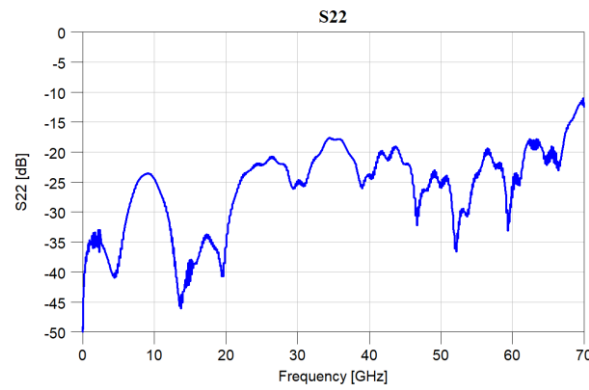
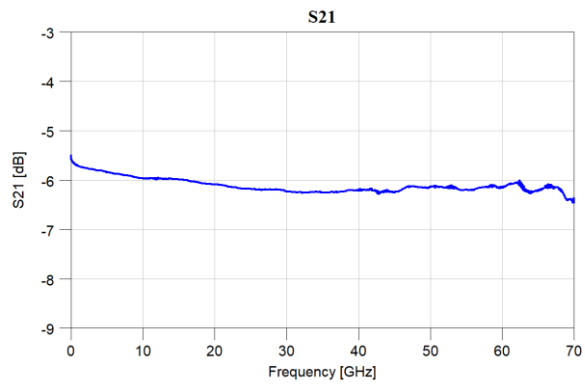
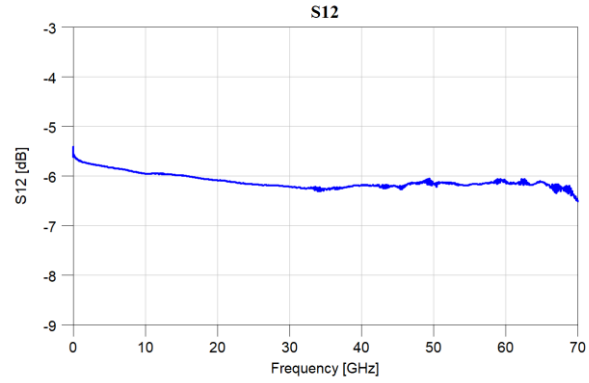
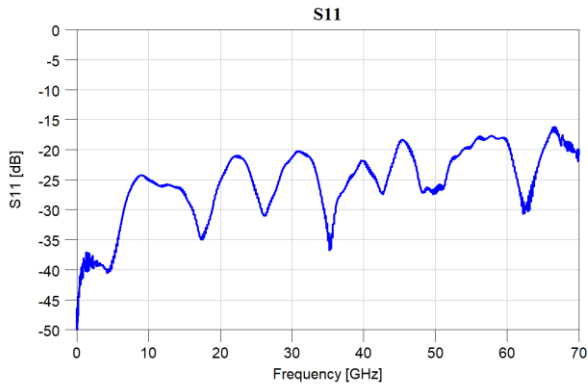
SHF ATT67 A | 3 dB



³ These typical S-Parameters are valid for the VFVM configuration: 1.8 mm female to 1.8 mm male.

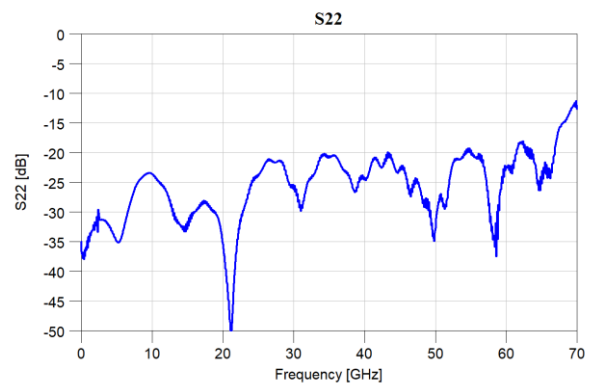
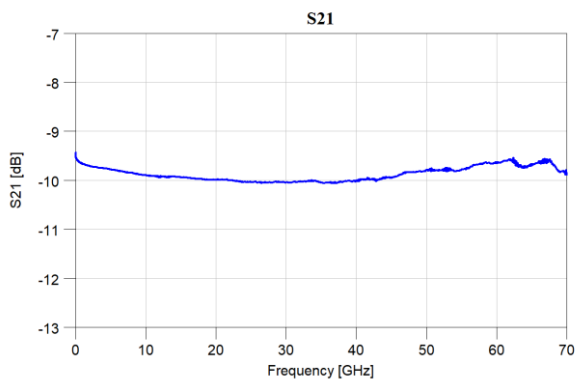
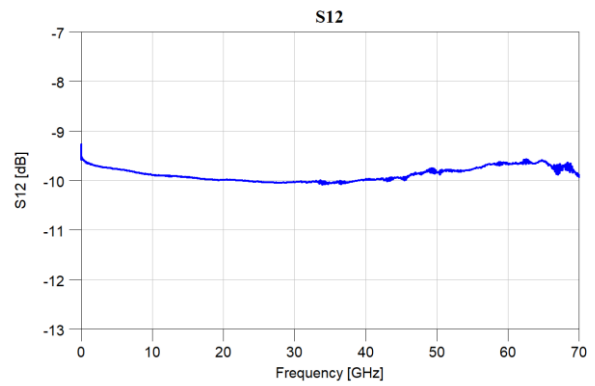
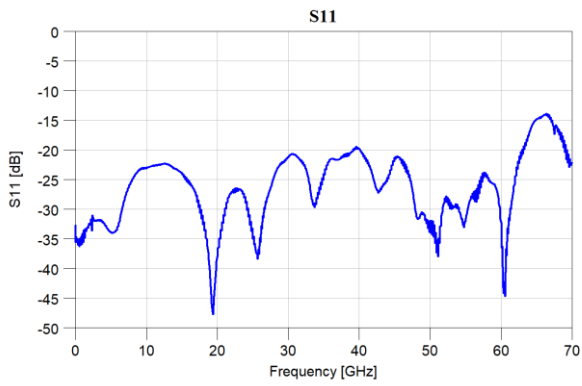


SHF ATT67 A | 6 dB



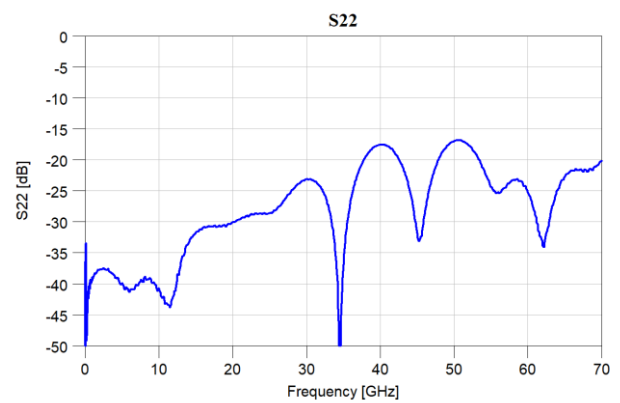
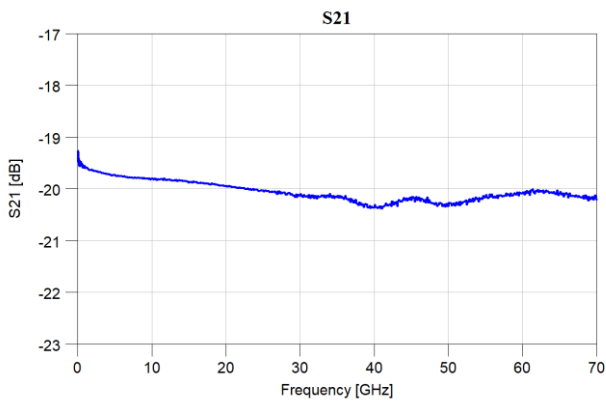
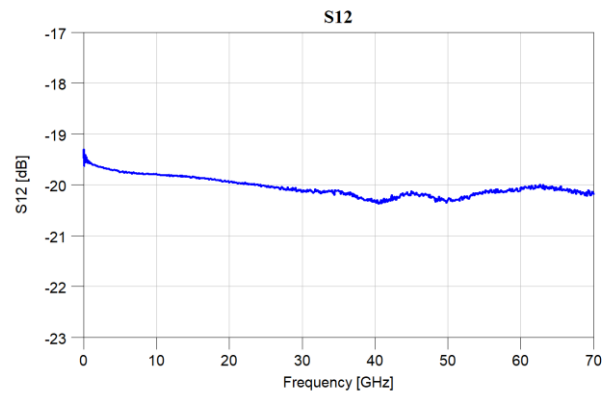
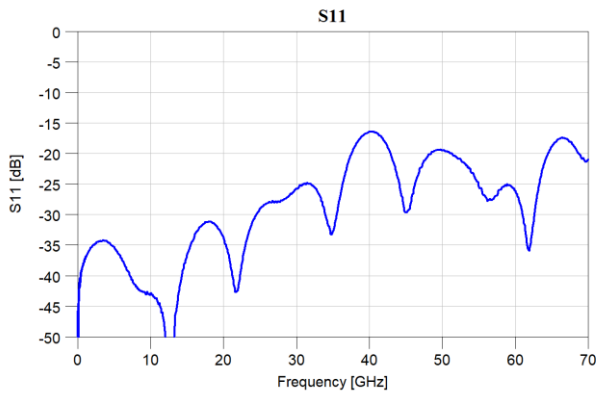


SHF ATT67 A | 10 dB



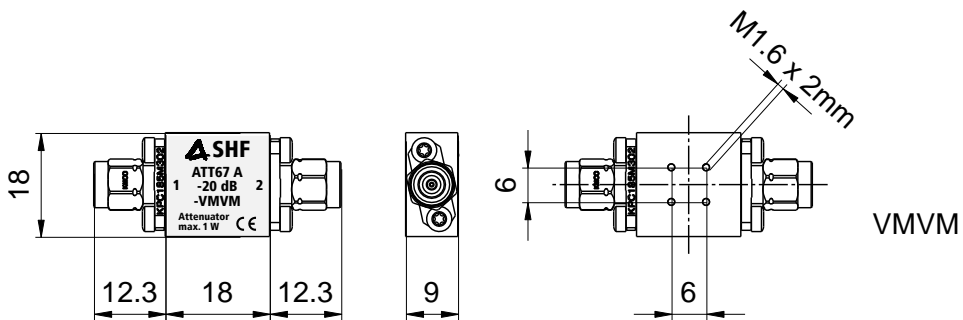
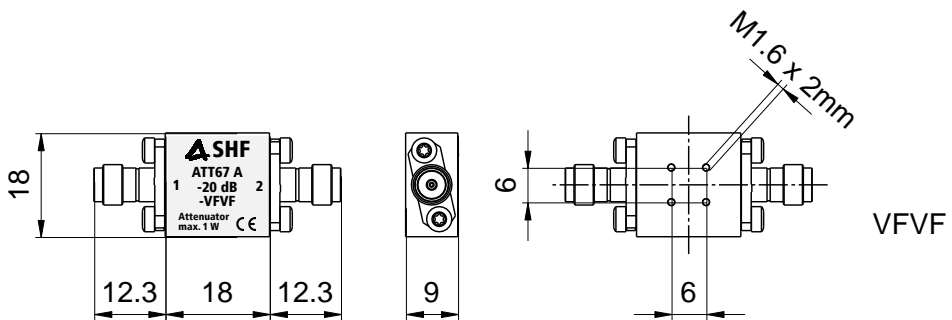
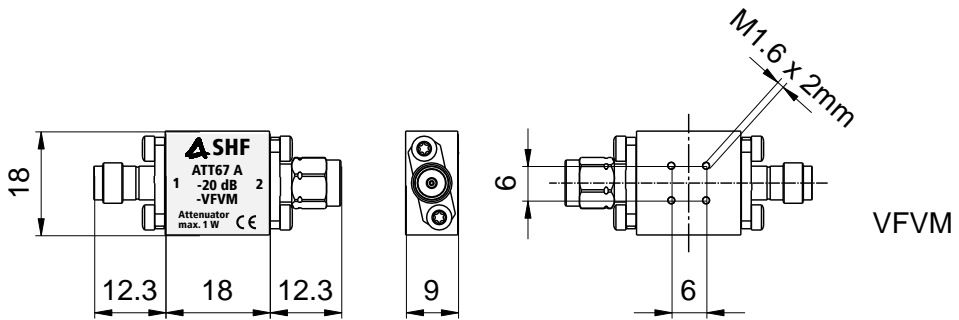


SHF ATT67 A | 20 dB





Mechanical Drawing



All dimensions in mm



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