

## 500W Coaxial Fixed Attenuator DC-18GHz



### Product Description

The RFS500G18A is a coaxial fixed attenuator with a frequency range of DC to 18GHz.

The max average power of the attenuator is 500W. The max VSWR of 1.6:1.

The working temperature of this product is between - 55°C and + 125°C.

### Features

- Wide frequency Band
- Low VSWR
- Multiple Attenuation Values Available

### Typical Applications

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations

### Electrical Specifications (T<sub>A</sub>=+25°C)

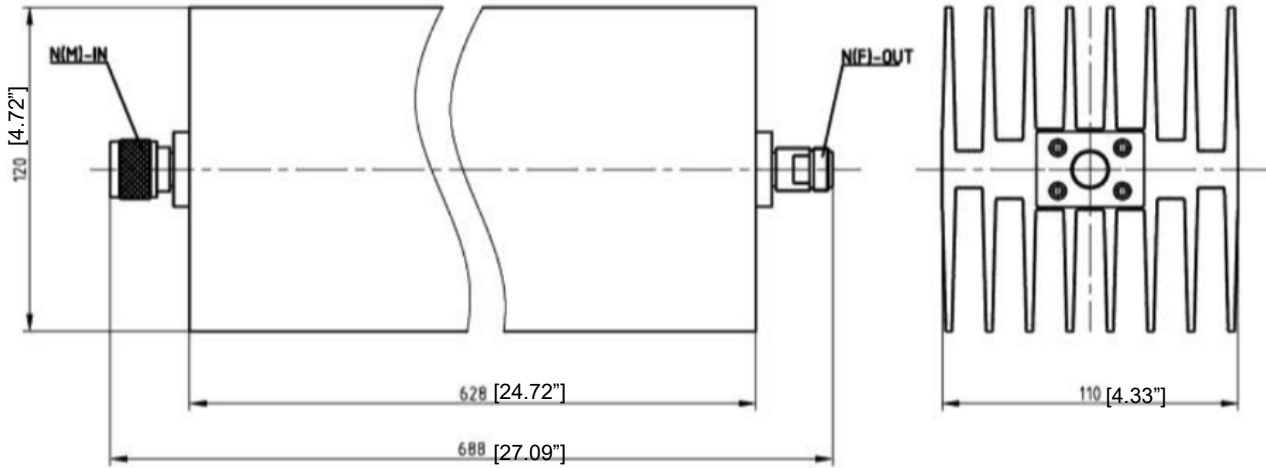
Parameter	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Attenuation Value & Accuracy	30	-4.0/+3.0		dB
	40	-4.0/+2.0		
VSWR			1.6	: 1
Average Power			500	W
Peak Power (5% Duty Cycle, 5us Pulse Width)			10	KW
Impedance		50		Ω
Weight		19.4		lbs.
Input / Output Connectors	N-Male (Input) – N-Female (Output)			
Connectors	Brass Nickel Plated			
Male Pin	Brass Gold Plated			
Female Pin	Beryllium Copper Gold Plated			

**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	-55°C to +125°C (Case Temperature)
Storage Temperature	-55°C to +125°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +125°C for 72 Hours
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

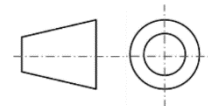
\*\*For vibration testing details please see additional information section.

**Outline Drawing**



Notes:

1. Package Material: Aluminum
2. Finish: Black Anodized
3. All dimensions are in millimeters [inches].
4. Tolerances  $\pm 0.25$  [0.01] unless otherwise specified.



Additional Information

Documentation	Webpage
ESD Policy	<a href="https://rflambda.com/pdf/rflambda_esd_control.pdf">https://rflambda.com/pdf/rflambda_esd_control.pdf</a>
Connector Torque Specifications	<a href="https://www.rflambda.com/pdf/Torque_Specifications.pdf">https://www.rflambda.com/pdf/Torque_Specifications.pdf</a>
Random Vibration Test Standard	<a href="https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf">https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf</a>

**Ordering Information**

Part Number	Modification	Description
RFS500G18A	Input connector N-Male and Output connector N-Female	DC-18GHz Fixed Attenuator

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