

WR159 Waveguide to Coaxial Adapter 4.9GHz-7.05GHz



Product Description

RFWA159B9CFAL is a waveguide to coaxial adapter with a frequency range of 4.9 to 7.05GHz.

The operating temperature of this product is from -40 to +85°C

Features

- Full band operation
- Low VSWR
- Rugged mechanical configuration

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($T_A=25^{\circ}\text{C}$)

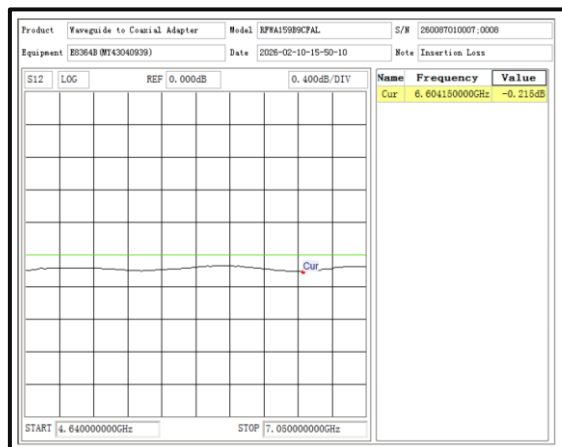
Parameter	Min	Typ	Max	Units
Frequency Range	4.9		7.05	GHz
Insertion Loss		0.2	0.3	dB
VSWR			1.4	:1
Power Handling (Max)		200		W
Waveguide Type		WR159		
Flange Type		CPRF		
Flange Holes		Through		

Environmental Specifications and Test Standards

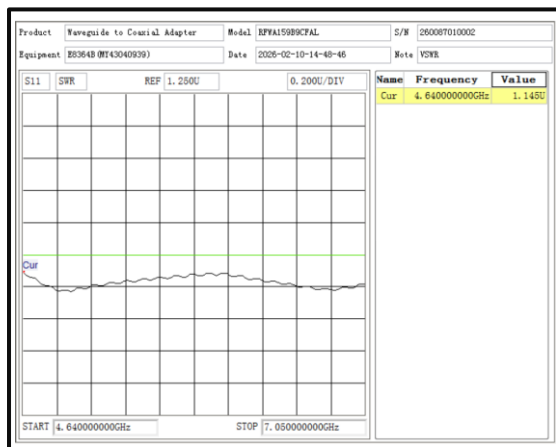
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +125°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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)

Typical Performance Plots

Insertion Loss

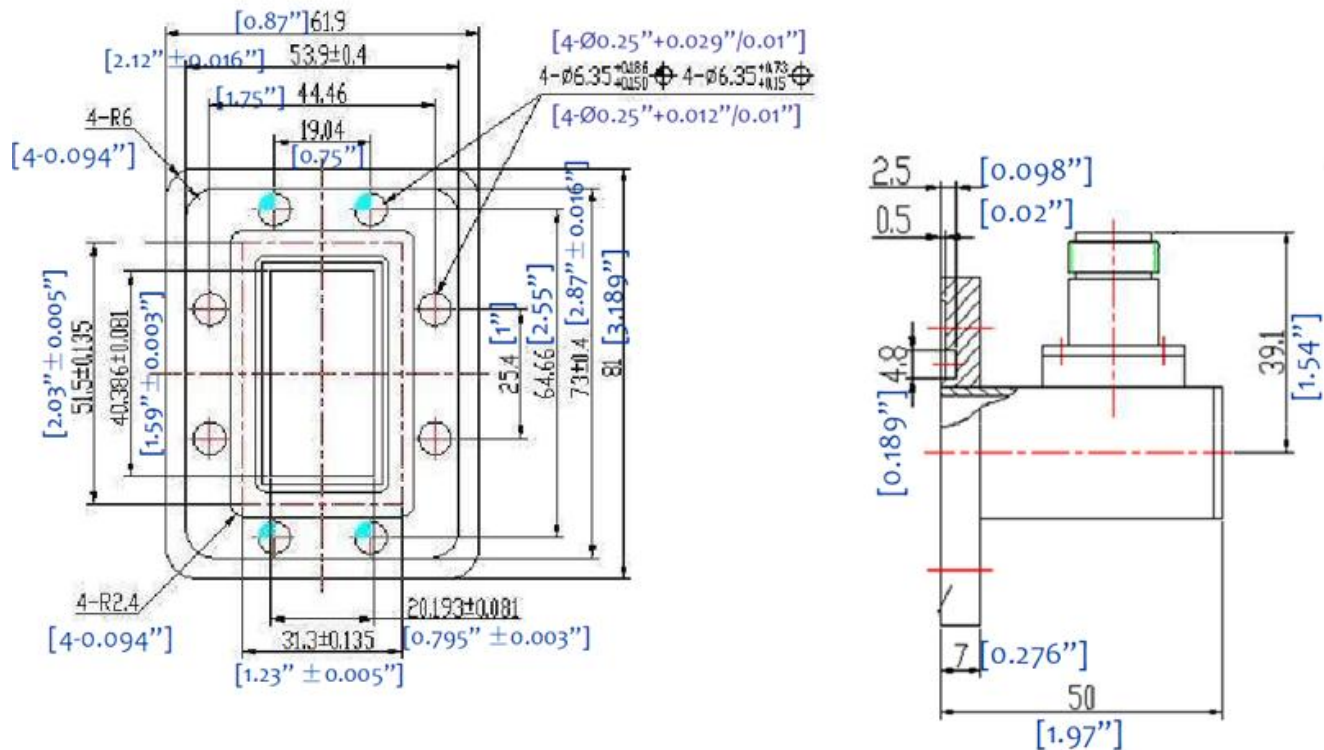


VSWR



Note: In Insertion Loss (IL) test setup, two Waveguide to Coaxial Adapters are connected together. The test value is the total IL of the two parts. Actually the IL test result of single Waveguide to Coaxial Adaptor is the total value divided by two.

Outline Drawing



Notes:

1. Package Material: Aluminum
2. Internal Body Finish: Silver Plated chromate or conversion; External Body Finish: Body painted with gray/black epoxy enamel
3. All dimensions are in millimeters [inches].
4. The tolerance noted is just for reference.

Additional Information

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

Ordering Information

Part Number	Modification	Description
RFWA159B9CFAL	WR159	4.9GHz-7.05GHz Waveguide to Coaxial Adapter

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