

Full Band Waveguide Adapter WR42 to 3.50mm 18 - 26.5GHz



Product Description

RFWA42E9F is a full band waveguide adapter with a frequency range of 18 to 26.5GHz.

The maximum insertion loss is 0.1dB.

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

Features

- High power handling up to 50W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss

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

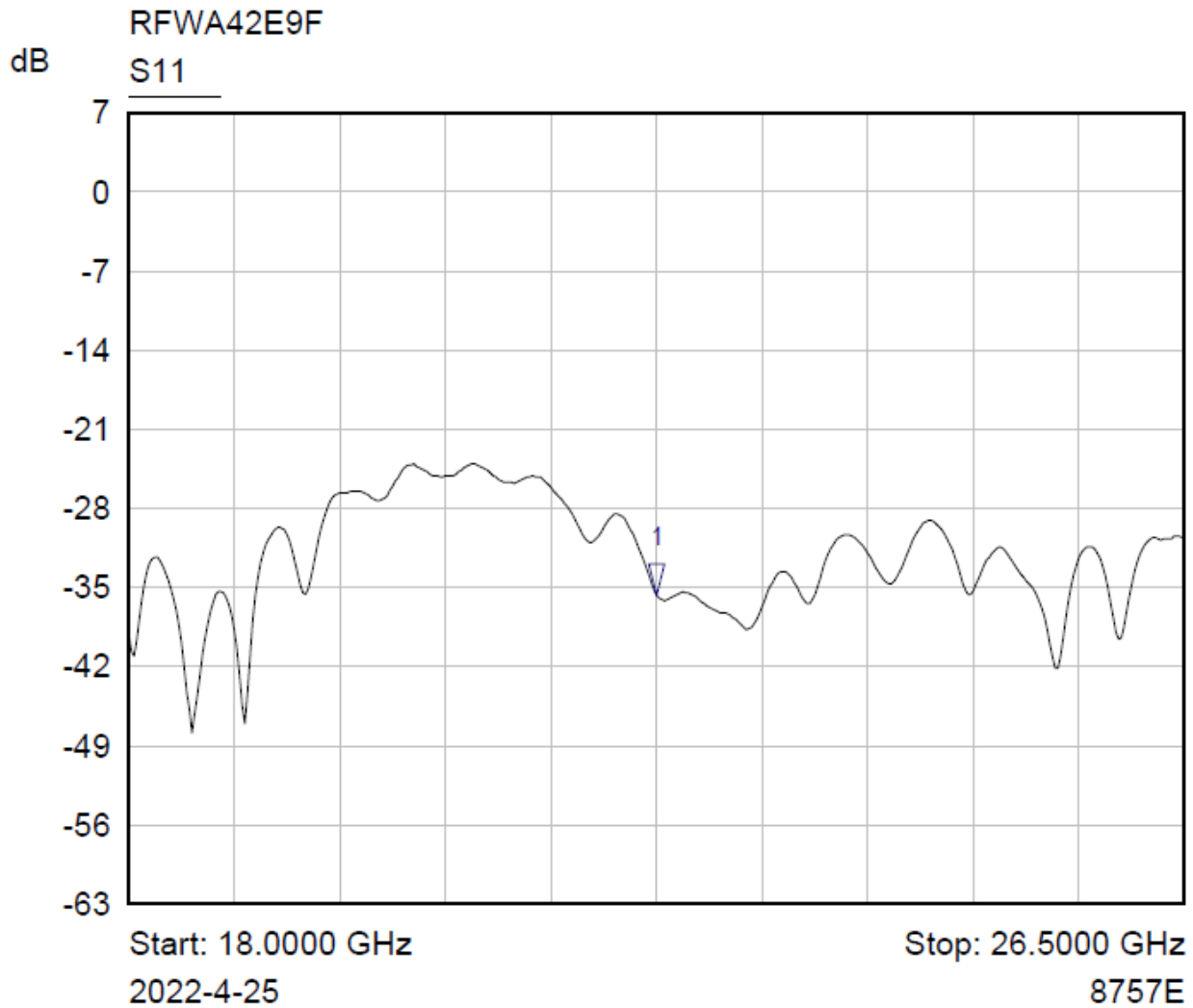
Electrical Specifications(T_A=25°C)

Parameter	Min	Typ	Max	Units
Frequency Range		18 – 26.5		GHz
Insertion Loss	0.05	0.08	0.10	dB
VSWR	1.10	1.15	1.2	:1
Forward Power (CW)			50	W
Impedance		50		Ω
Input / Output Connectors		3.5mm-Female		
Waveguide Type		WR42		

Environmental Specifications and Test Standards

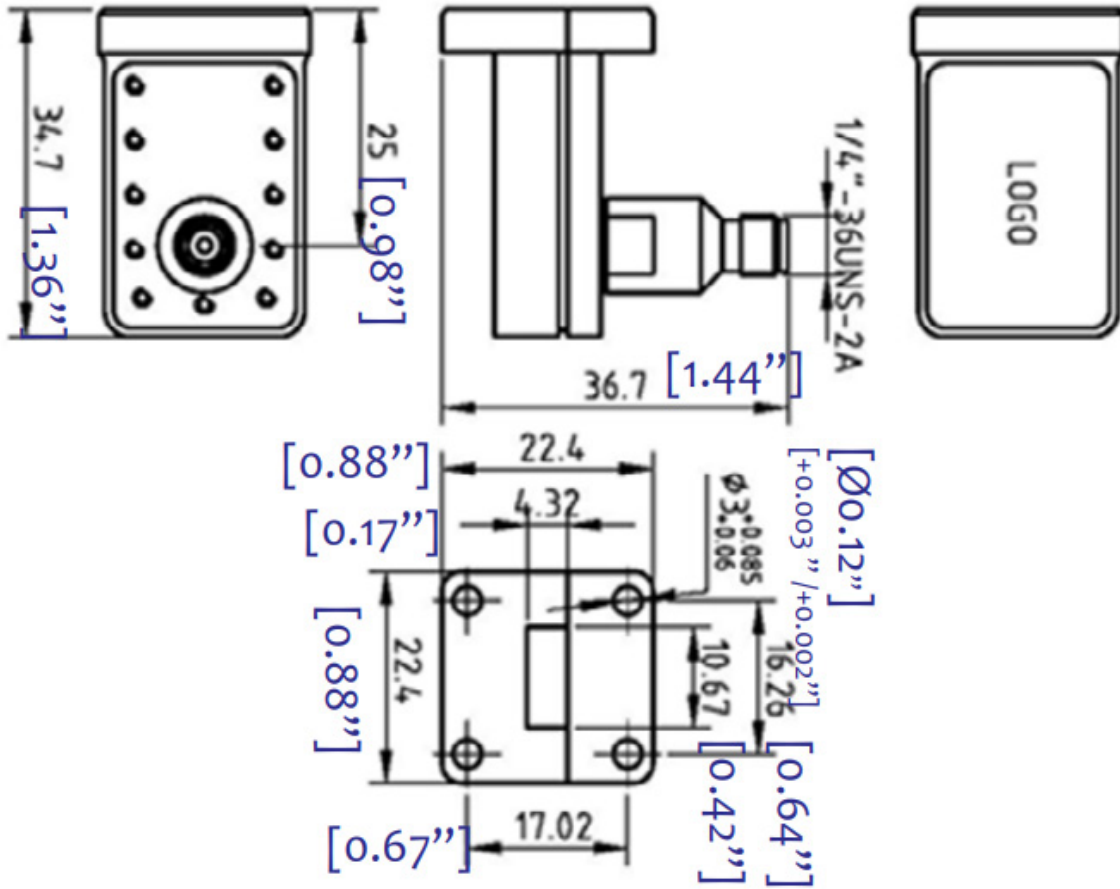
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	22.2500 GHz	-35.66 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Plating: Oxidized (Chem Coat) or Polyurethane Liquid Coat Paint.
3. All dimensions are in millimeters [inches].

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
RFWA42E9F	Standard	18GHz-26.5GHz Full Band Waveguide Adapter

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