

WR90 Dual Channel High Power Waveguide Rotary Joint 9GHz-9.8GHz



Product Description

RFWRJ90DU is a WR90 dual channel high power waveguide rotary joint with a frequency range of 9 to 9.8GHz.

The average power handling of the rotary joint is 150W.

The waveguide type is WR90.

Features

- Waveguide Rotary Joint
- 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		9		9.8	GHz
VSWR				1.25	: 1
Insertion loss			0.6		dB
Power Handling (CW)	Average		150		W
	Peak		10		KW
Waveguide type			WR90		
Flange Type			Cover		

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
High Temperature Burn In	Temperature +85°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)

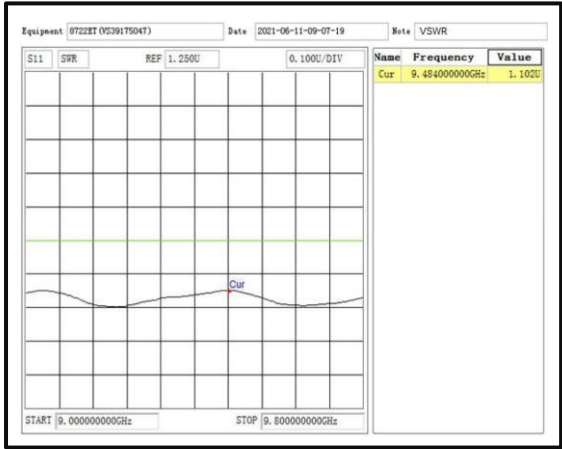
*For vibration testing details please see additional information section.

Typical Performance Plots

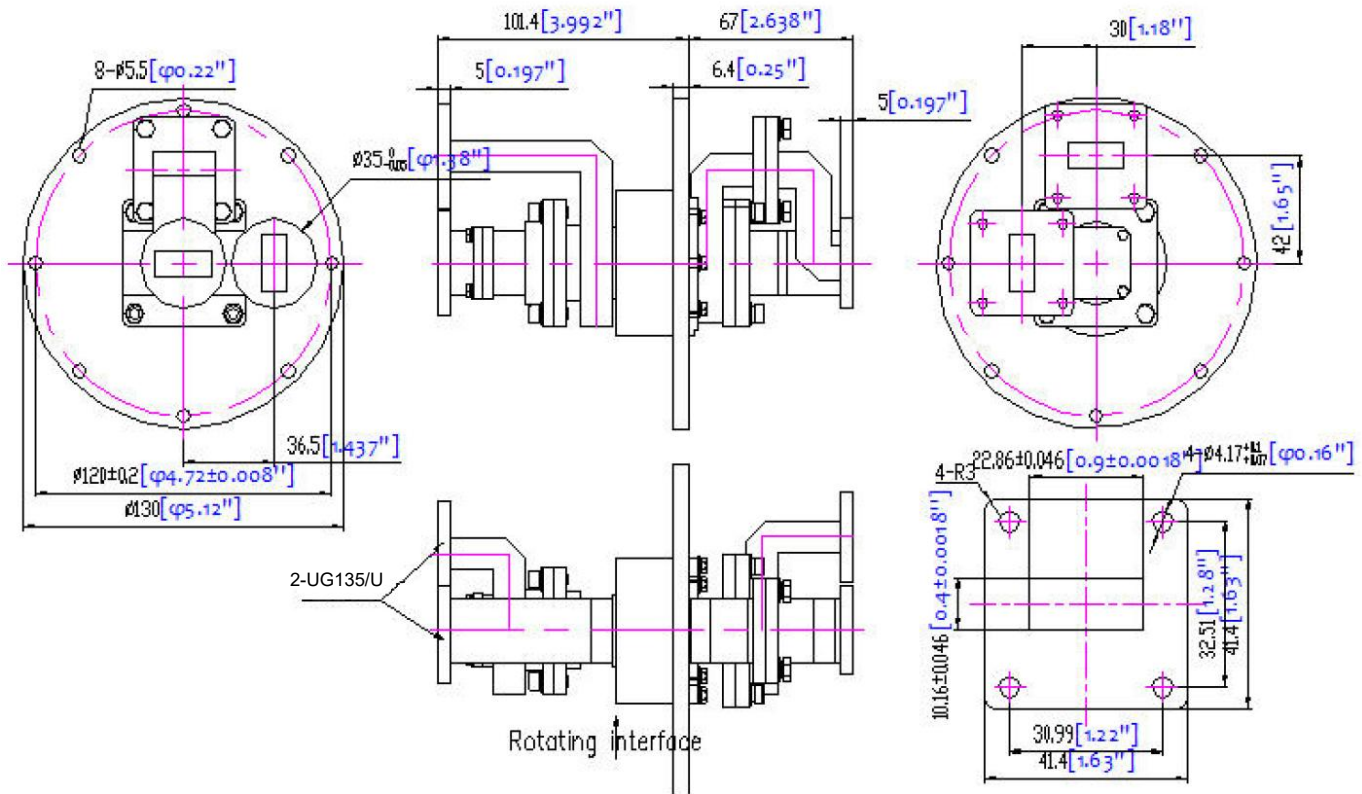
VSWR



VSWR

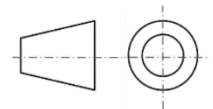


Outline Drawing



Notes:

1. All dimensions are in millimeters [inches].
2. 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
RFWRJ90DU	WR90	9GHz-9.8GHz Waveguide Rotary Joint

Important Notice

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