

WR12 Waveguide Circulator 77.2GHz-79.2GHz



Product Description

RFWC12A-77.2G79.2G is a waveguide circulator with a frequency range of 77.2 to 79.2GHz.

The circulator has a minimum isolation of 17dB. The typical insertion loss is 1dB.

The circulator's interface is WR12.

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

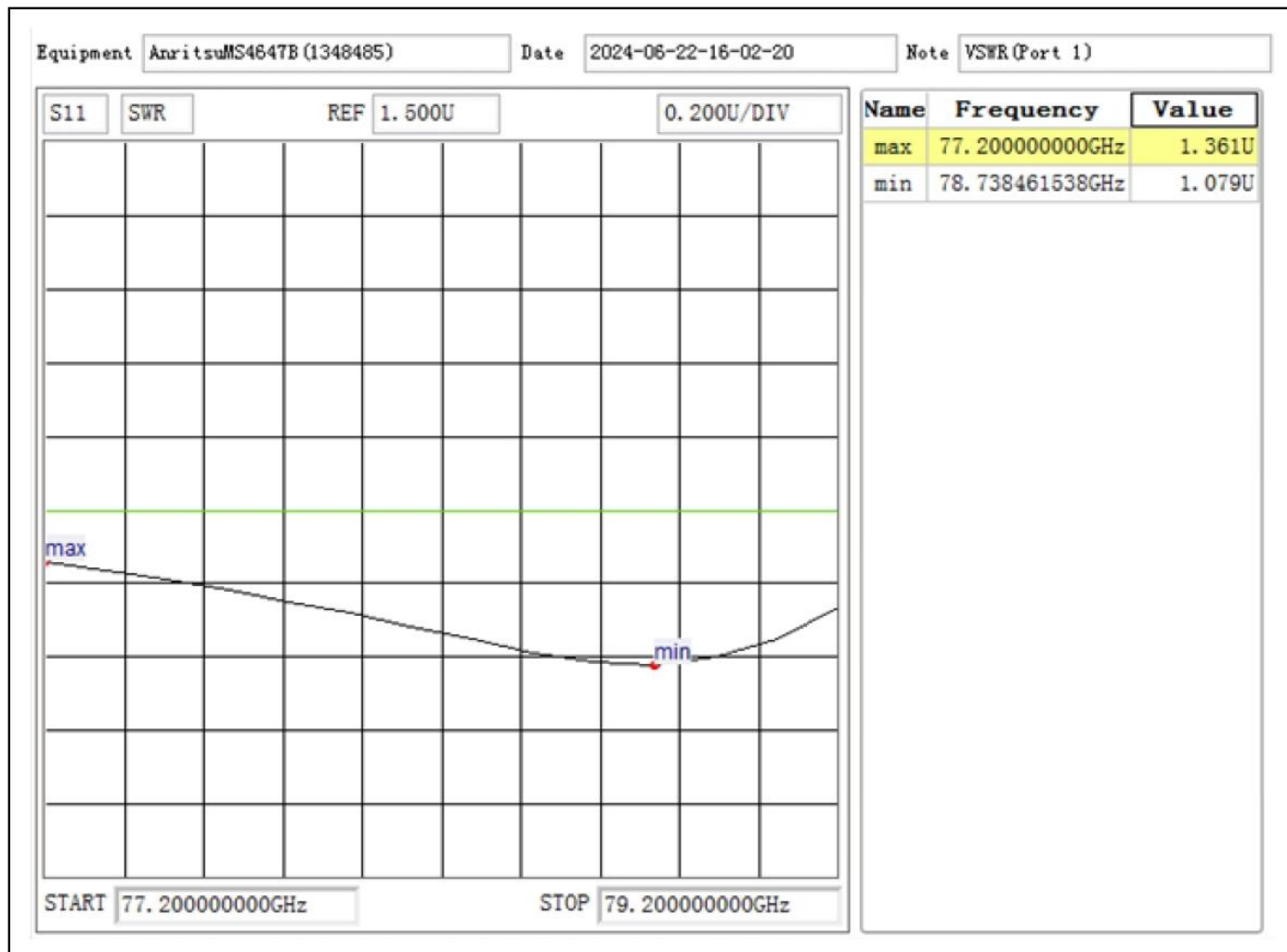
Parameter	Min.	Typ.	Max.	Units
Frequency Range		77.2-79.2		GHz
Insertion Loss		1		dB
Isolation	17			dB
VSWR			1.35	:1
Average Power		1		W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Interface		WR12		

Environmental Specifications and Test Standards

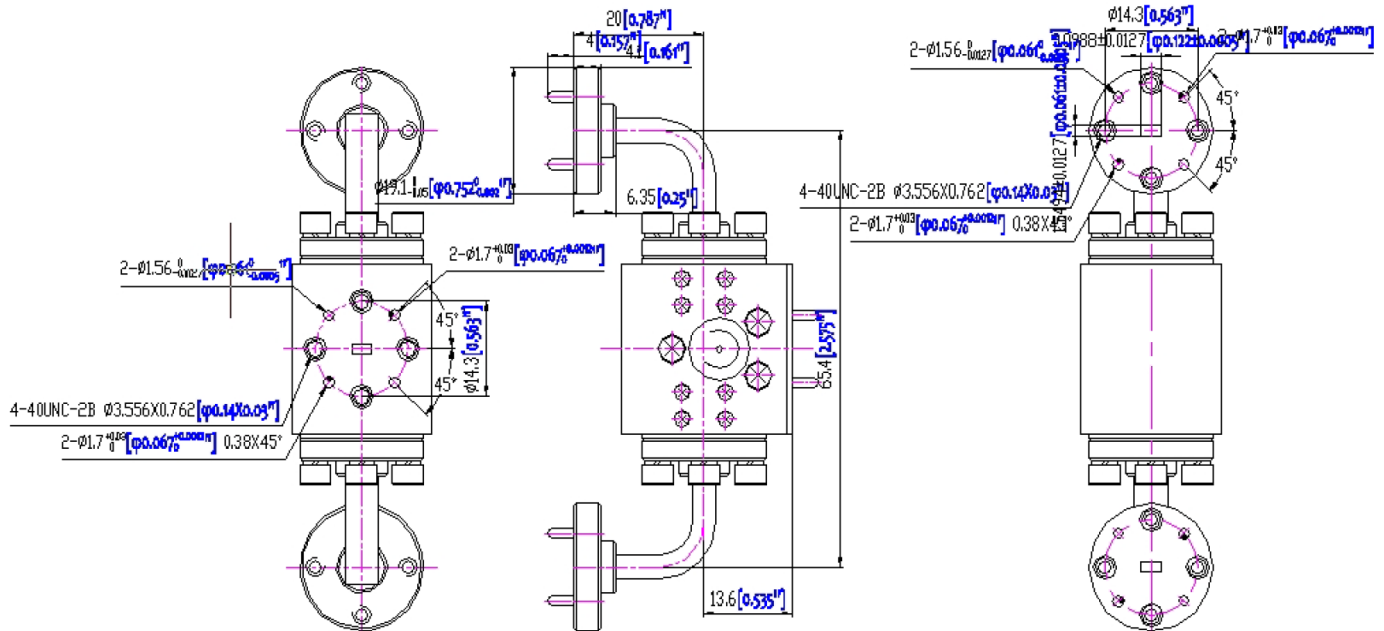
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
*Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms,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

*For vibration testing details please see additional information section.

Typical Performance Plots



Outline Drawing



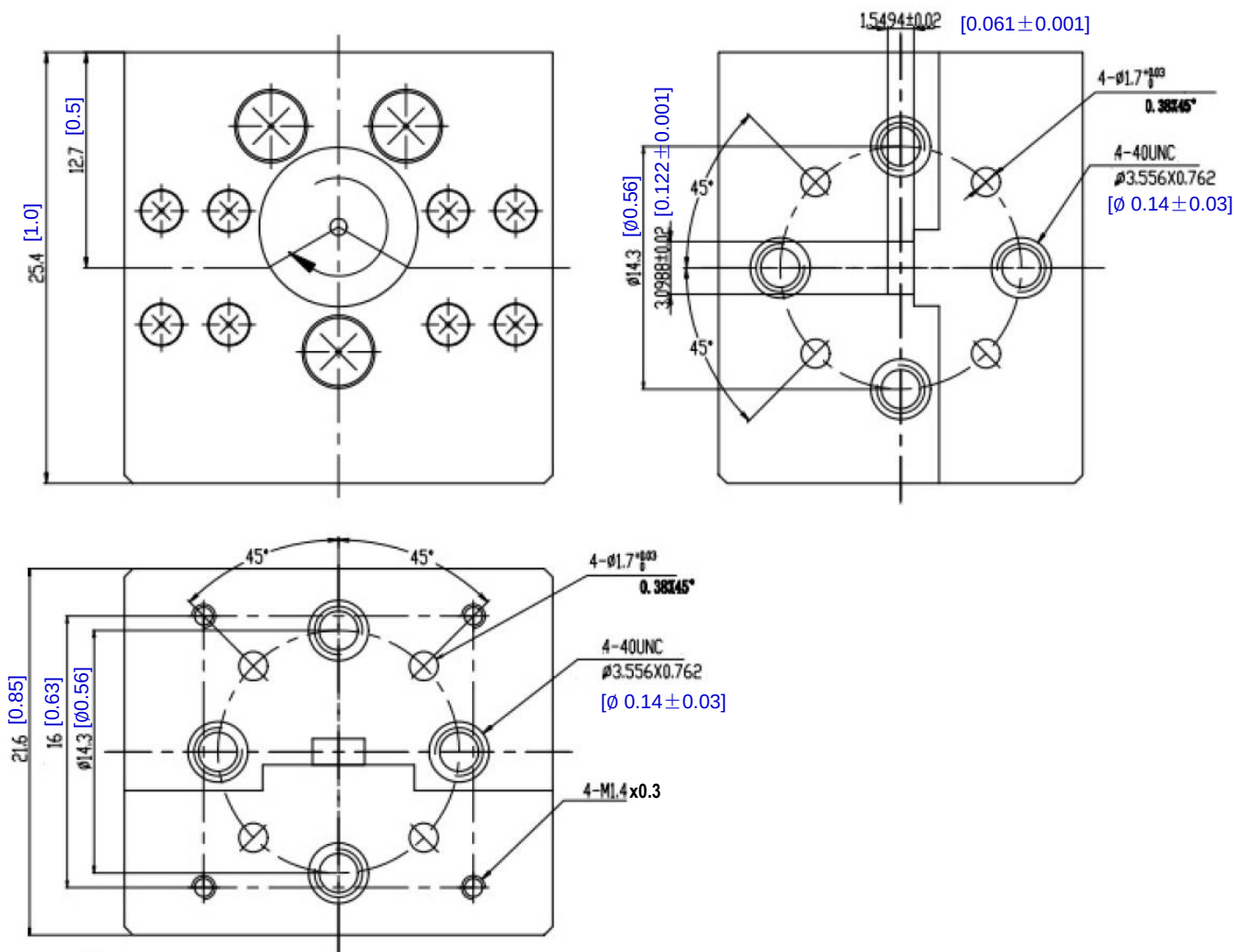
Notes:

1. Package Material: Copper/Brass
2. 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

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Webpage

Ordering Information

Part Number	Modification	Description
RFWC12A-77.2G79.2G	WR12	77.2GHz-79.2GHz Waveguide Circulator

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