

WR28 Waveguide Ultra Wide Band Isolator 26.5GHz-40GHz



Product Description

RFWI28A2 is a WR28 waveguide ultra wide band isolator with a frequency range of 26.5 to 40GHz.

The isolator has a typical isolation of 15dB. The maximum insertion loss is 0.5dB.

The isolator's interface is WR28.

Features

- High power handling up to 25W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- High peak to average handling capability
- All specifications can be modified upon request

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		26.5-40		GHz
Insertion Loss		0.40	0.50	dB
Isolation (Note 1)	14	15		dB
VSWR		1.5	1.55	:1
Forward Power (CW)			25	W
Reverse Power (CW)			10	W
Rotation		Clockwise		
Input / Output Connectors		COVER flat 4 holes		
Interface		WR28		
Flange Type		UG599/U		
Weight		0.11 Max.		lbs

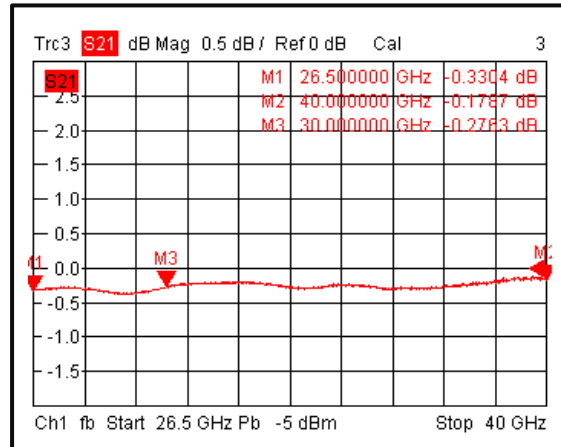
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +60°C (Case Temperature)
Storage Temperature	-40°C to +85°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)

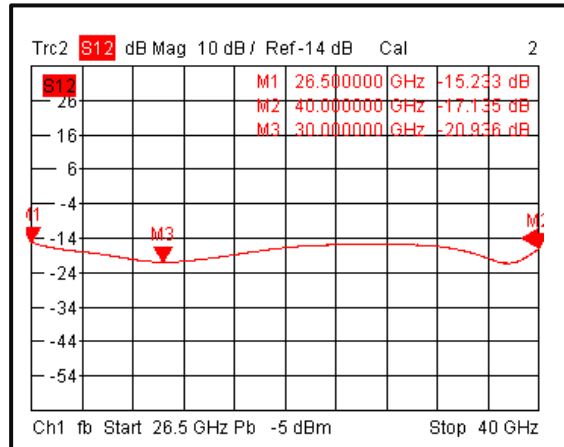
**For vibration testing details please see additional information section.

Typical Performance Plots

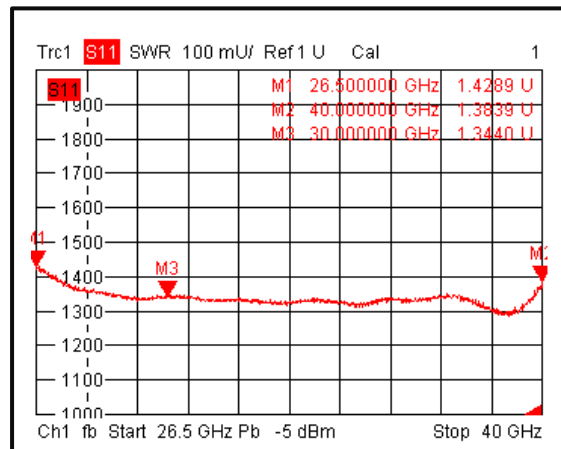
Insertion Loss



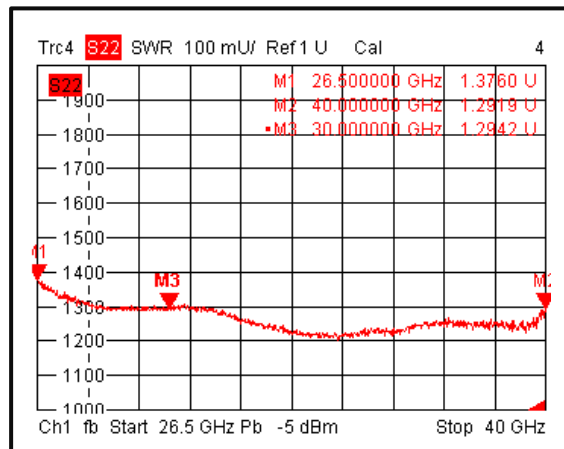
Isolation



VSWR 1

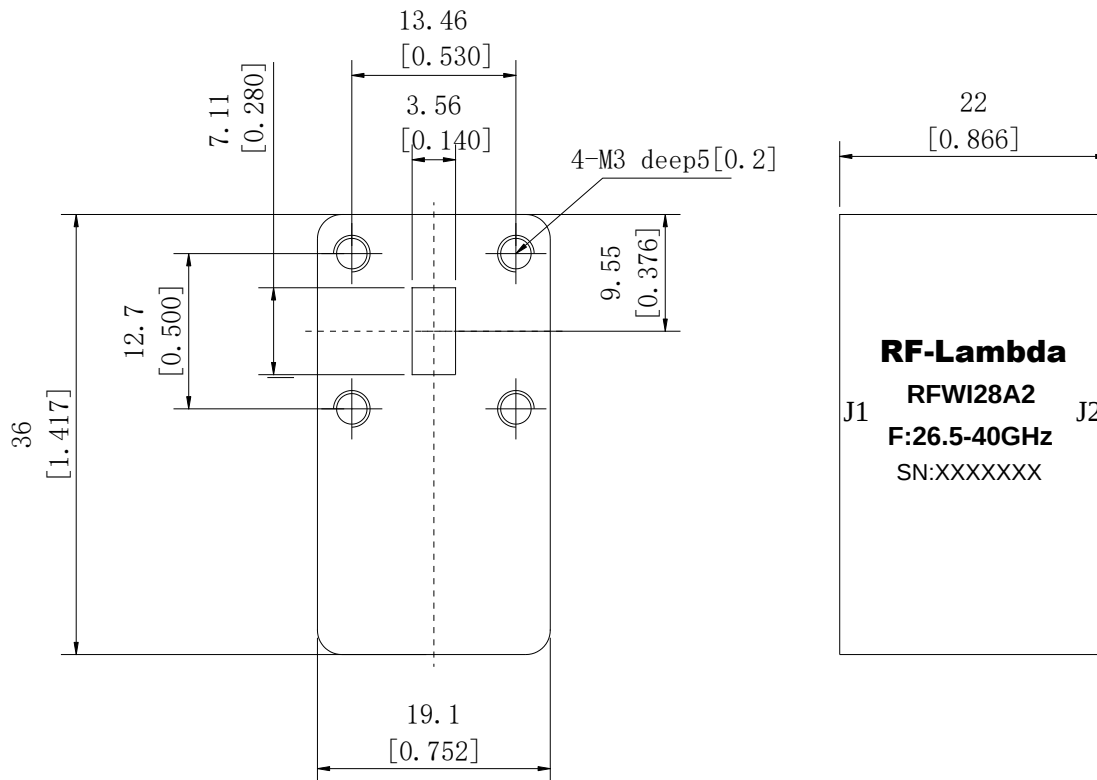
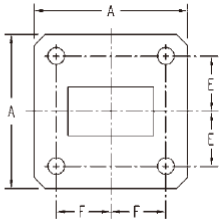


VSWR2



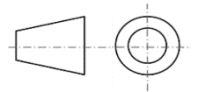
Outline Drawing

WR28	WG22	R320
UG599/U		
Dimensions	inches	mm
A	0.75	19.05
E	0.265	6.73
F	0.250	6.35
Hole Dia.	0.116	2.98



Notes:

1. Package Material: Aluminum alloy
2. Finish : Silver Plated
3. All dimensions are in millimeters [inches]
4. Outline Tolerances ± 0.5 [0.02], Mounting Hole Tolerances ± 0.2 [0.008] unless otherwise specified.



Additional Information

Documentation

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

Webpage

Ordering Information

Part Number	Modification	Description
RFWI28A2	WR28	26.5GHz-40GHz Waveguide Isolator

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