WR28 Waveguide Circulator
26.5GHz - 40GHz

Note: The photo is for illustration purposes only. Please refer to outline drawing

Product Description

RFWC28A is a WR28 waveguide Circulator with a frequency range of 26.5 to 40GHz.

The Circulator has a typical isolation of 17dB. The maximum insertion loss is 0.6dB.

The circulator waveguide type is WR28.

Features

- High power handling up to 10W
- 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=+25ºC)

Parameter	Min	Typ	Max	Units
Frequency Range		26.5 – 40		MHz
Insertion Loss		0.5	0.6	dB
Isolation (Note 1)	16	17		dB
VSWR			1.4	:1
Average Power (CW)			10	W
Peak Power		50 (5% Duty Cycle, 5us Pulse Width)		W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Flange Type		CPRG, CPRF, COVER, CHOKE available		
Waveguide type		Waveguide WR28		
Input / Output Interface		COVER flat 4 holes		

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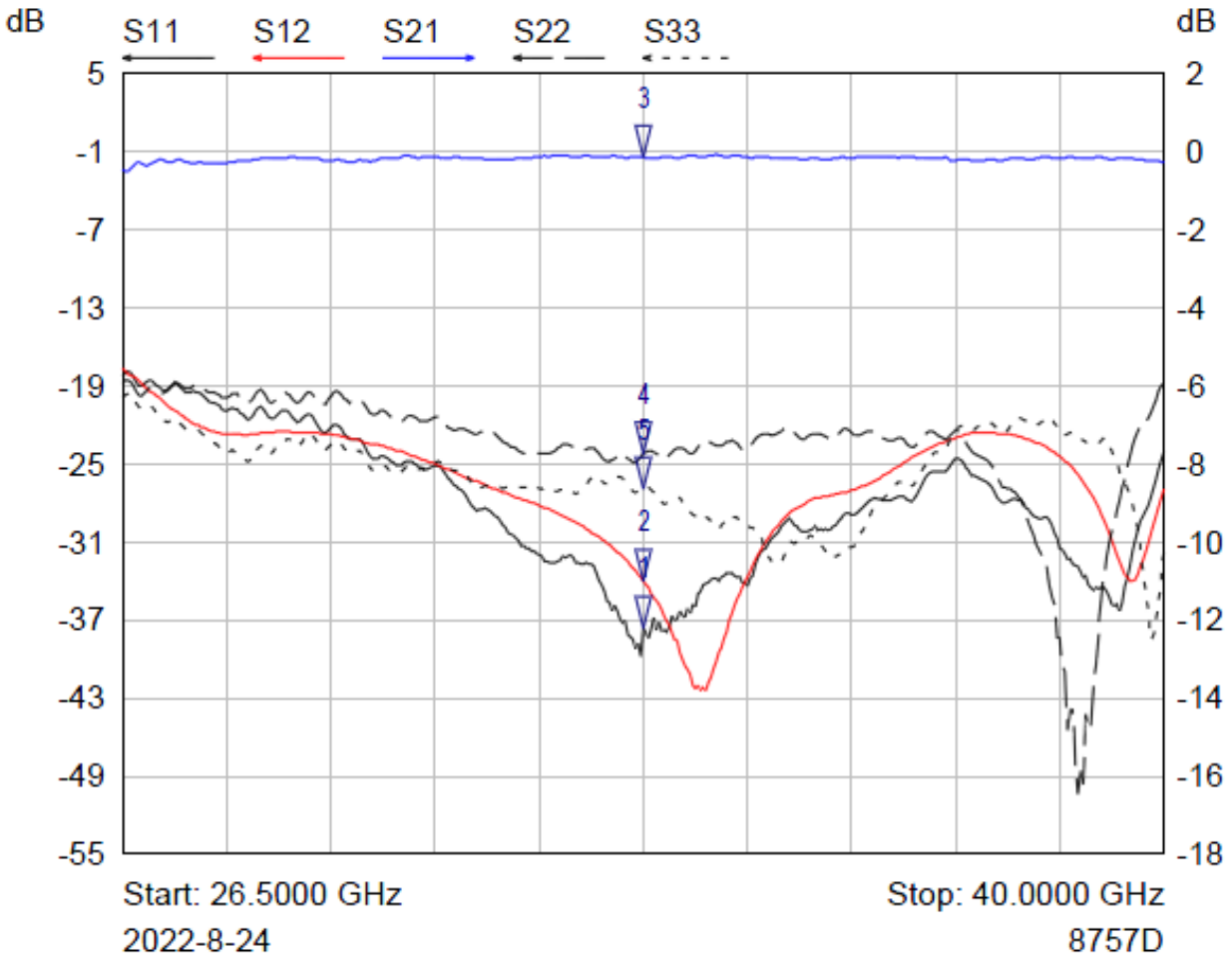
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20ºC to +60ºC (Case Temperature)
Storage Temperature	-40ºC to +85ºC
Thermal Shock	-40ºC → +85ºC (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)

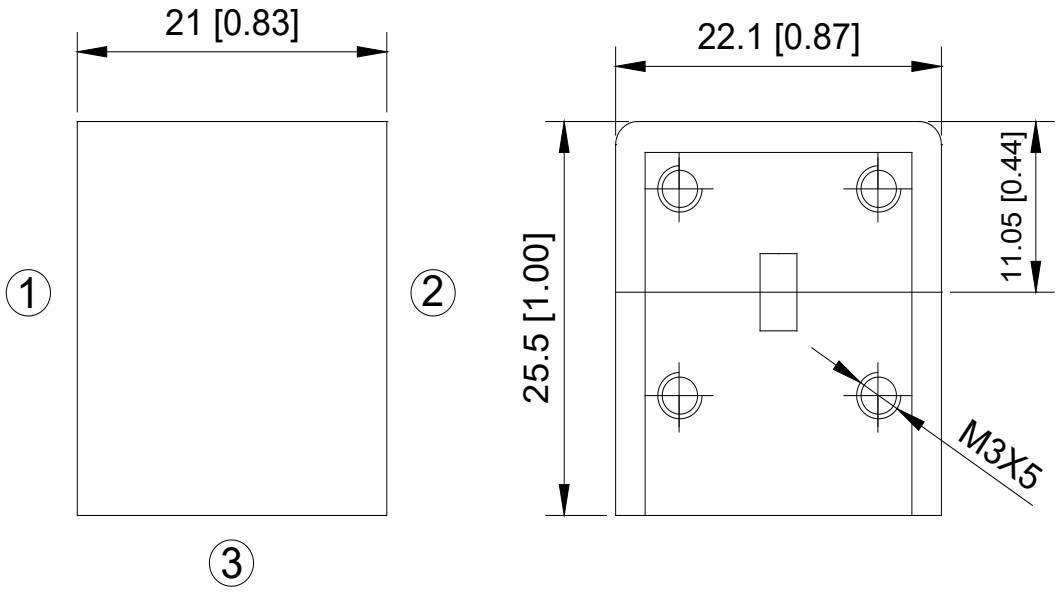
*For vibration testing details please see additional information section.

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	33.2500 GHz	-37.57 dB	
2 ▽	S12	33.2500 GHz	-34.00 dB	
3 ▽	S21	33.2500 GHz	-0.14 dB	
4 ▽	S22	33.2500 GHz	-24.22 dB	
5 ▽	S33	33.2500 GHz	-26.92 dB	

Outline Drawing



Notes:
1. Package Material: Aluminum, Brass, Stainless
2. Finish: Gray / Black Epoxy Enamel
3. All dimensions are in millimeters [inches].
4. Tolerance ±0.25 [0.01].unless otherwise specified

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
RFWC28A	Waveguide Type WR28	26.5GHz – 40GHz Waveguide Circulator

Important Notice

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