

WR284 Waveguide Circulator 2.6GHz - 3.95GHz (300MHz BW)



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

Product Description

RFWC284A is a WR284 Waveguide Circulator with a frequency range of 2.6 to 3.95GHz with a 300MHz BW (3.1 to 3.4GHz shown)

The circulator has a minimum isolation of 20dB. The maximum insertion loss is 0.3dB.

The circulator waveguide type is WR284.

Features

- High power handling up to 2KW
- 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)

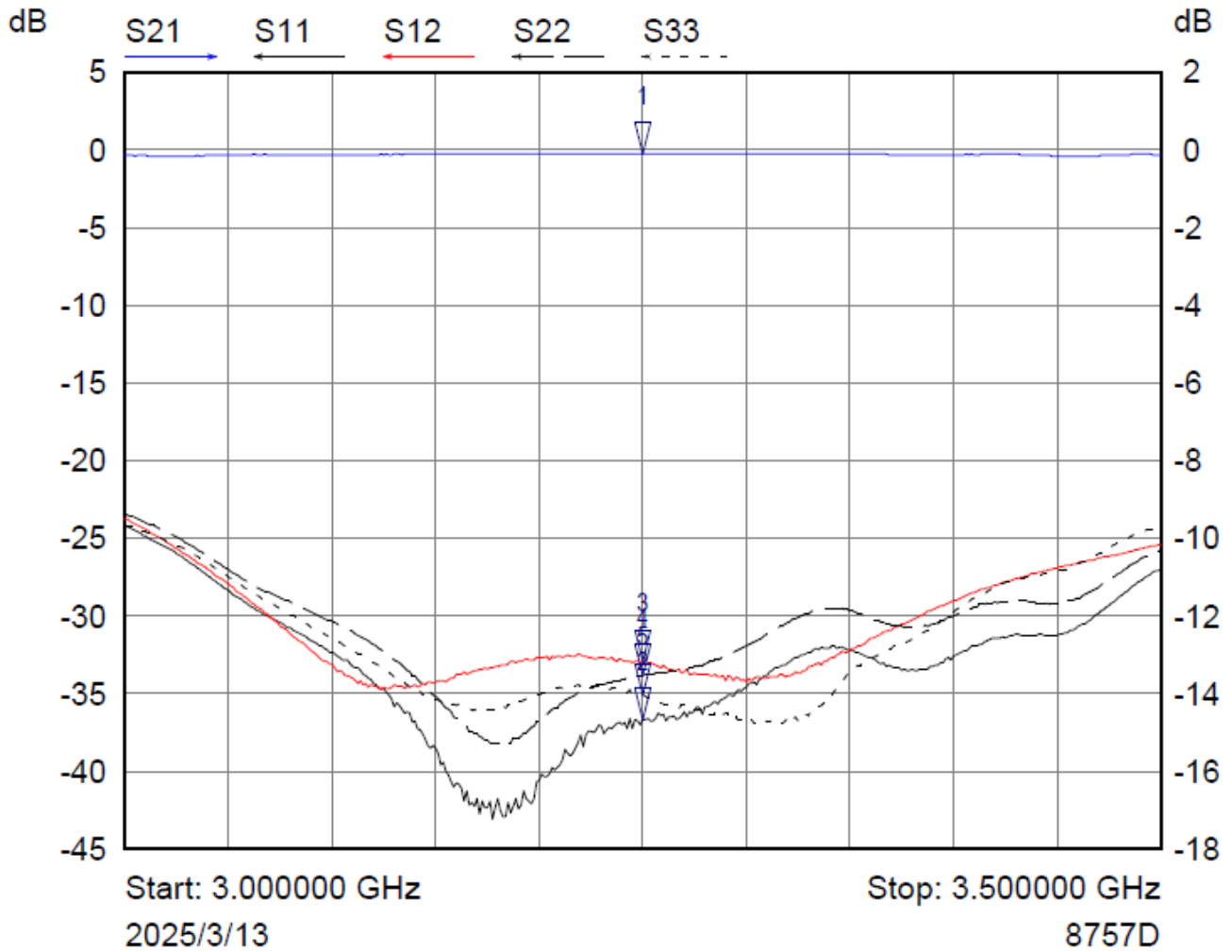
Parameter	Min	Typ	Max	Units
Frequency Range		2.6 - 3.95 with 300MHz BW (3.1 to 3.4GHz Shown)		GHz
Insertion Loss			0.3	dB
Isolation	20			dB
VSWR			1.20	:1
Power handling			2	KW
Weight		9.71 Typ.		lbs
Flange type		CPRG, CPRF, COVER, CHOKE available		
Flange Holes		Through		
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +125°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)

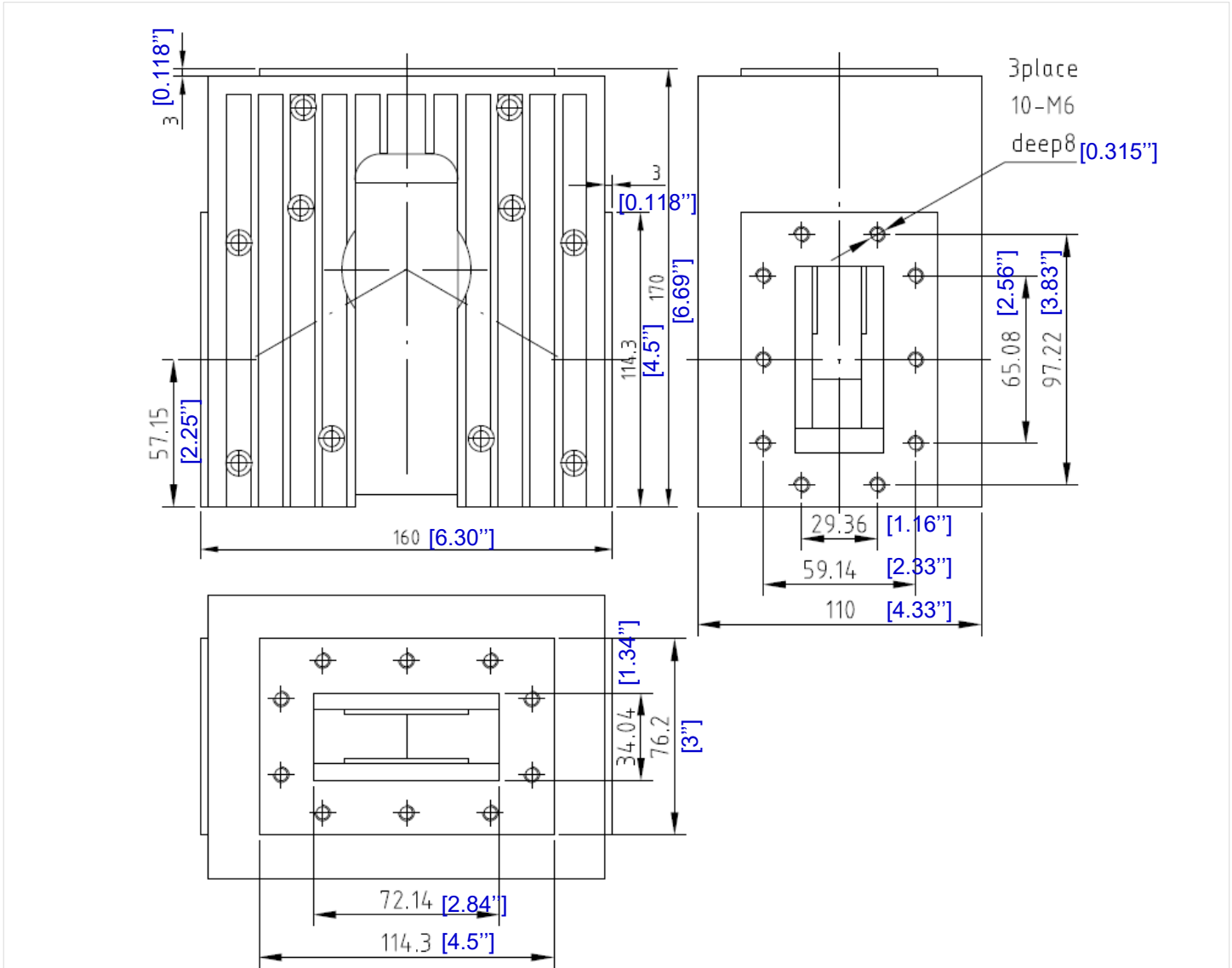
** For vibration testing details please see additional information section.

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S21	3.25000 GHz	-0.1070 dB	
2 ▾	S11	3.25000 GHz	-36.6760 dB	
3 ▾	S12	3.25000 GHz	-32.9300 dB	
4 ▾	S22	3.25000 GHz	-33.8530 dB	
5 ▾	S33	3.25000 GHz	-35.0830 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum, Brass, Alloyed Cuprum, Stainless
2. Finish: Gray / Black epoxy enamel
3. All dimensions are in millimeters [inches].
4. Standard torque wrench must be used to secure RF connectors.

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
RFWC284A	WR284	2.6GHz-3.95GHz Waveguide Circulator with 300MHz BW

Important Notice

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