

WR284 Waveguide Circulator 2.6GHz - 3.95GHz



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

Product Description

RFWC284C is a WR284 Waveguide Circulator with a frequency range of 2.6 to 3.95GHz.

The circulator has a minimum isolation of 21dB. The maximum insertion loss is 0.5dB.

The circulator waveguide type is WR284.

Features

- High power handling up to 1KW
- 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

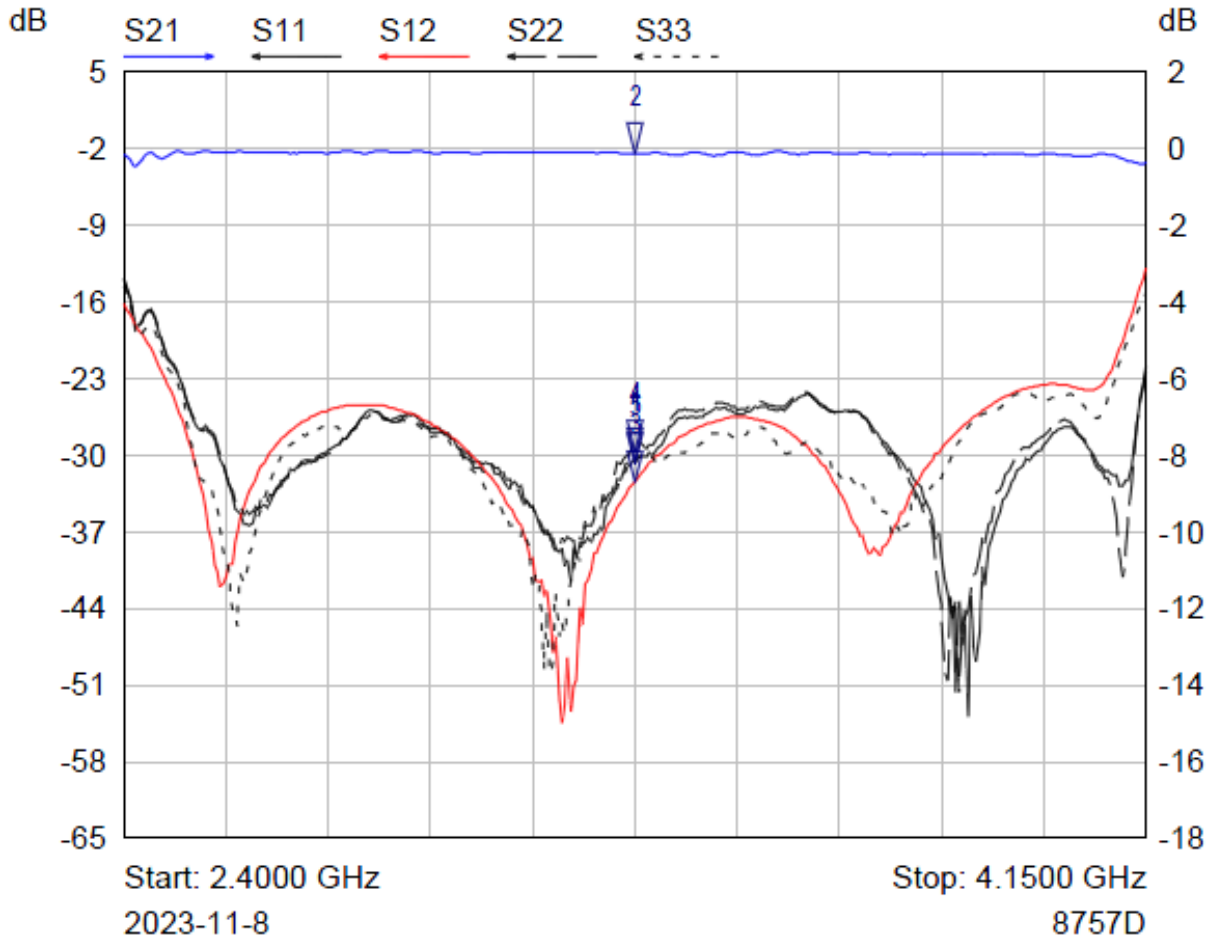
Electrical Specifications($T_A=25^\circ\text{C}$)

Parameter	Min	Typ	Max	Units
Frequency Range		2.6 - 3.95		GHz
Insertion Loss		0.45	0.50	dB
Isolation	21	22		dB
VSWR		1.15	1.20	:1
Power handling			1	KW
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input / Output Interface		CPR284F – Tapped Holes (See Drawing) Other flanges available upon request.		

Environmental Specifications and Test Standards

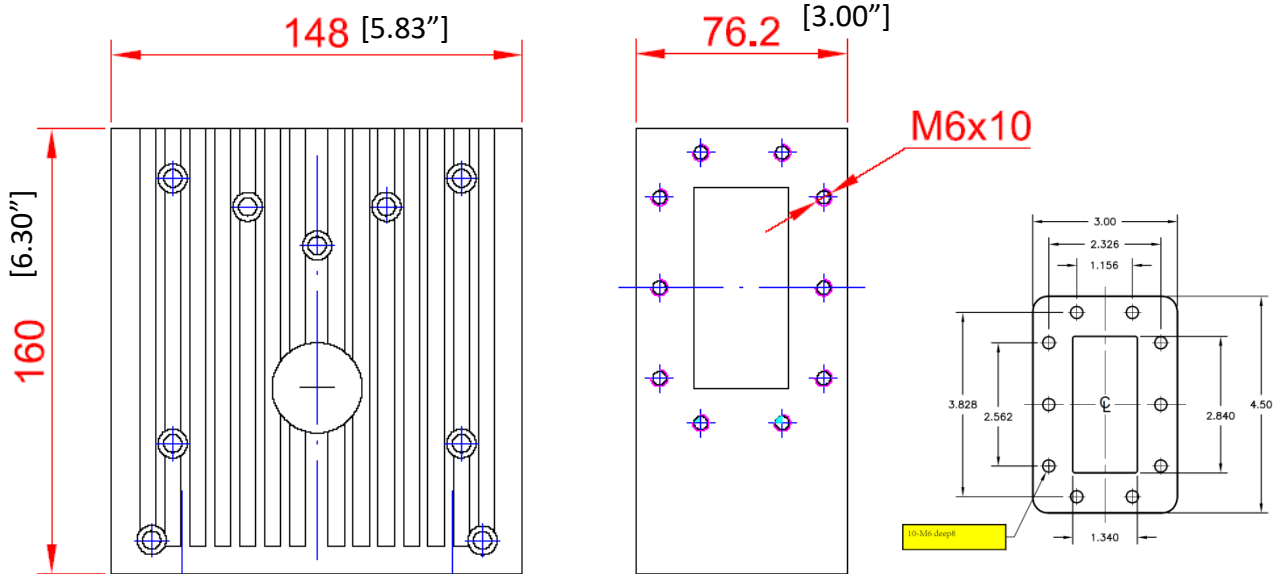
Parameter	Description
Operational Temperature	-20°C to +60°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-20°C → +60°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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)

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	3.2750 GHz	-30.32 dB	
2 ▽	S21	3.2750 GHz	-0.14 dB	
3 ▽	S12	3.2750 GHz	-32.50 dB	
4 ▽	S22	3.2750 GHz	-29.66 dB	
5 ▽	S33	3.2750 GHz	-30.76 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish:Conductive Oxide
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
RFWC284C	WR284	2.6GHz-3.95GHz Waveguide Circulator

Important Notice

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