WR430 Waveguide Circulator
1.7GHz–2.6GHz

Product Description

RFWC430C is a waveguide circulator with a frequency range of 1.7 to 2.6GHz.

The circulator has a typical isolation of 19dB. The maximum insertion loss is 0.3dB.

The circulator's waveguide type is WR430.

Features

- High power handling up to 3KW CW
- 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		1.7-2.6		GHz
Insertion Loss			0.3	dB
Isolation	19			dB
VSWR			1.25	:1
Forward Power (CW)			3	KW
Weight		-		lbs.
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Waveguide type		WR430		
Flange Type		UG1711/U		

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Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20ºC to +60ºC (Case Temperature)
Storage Temperature	-45ºC 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.

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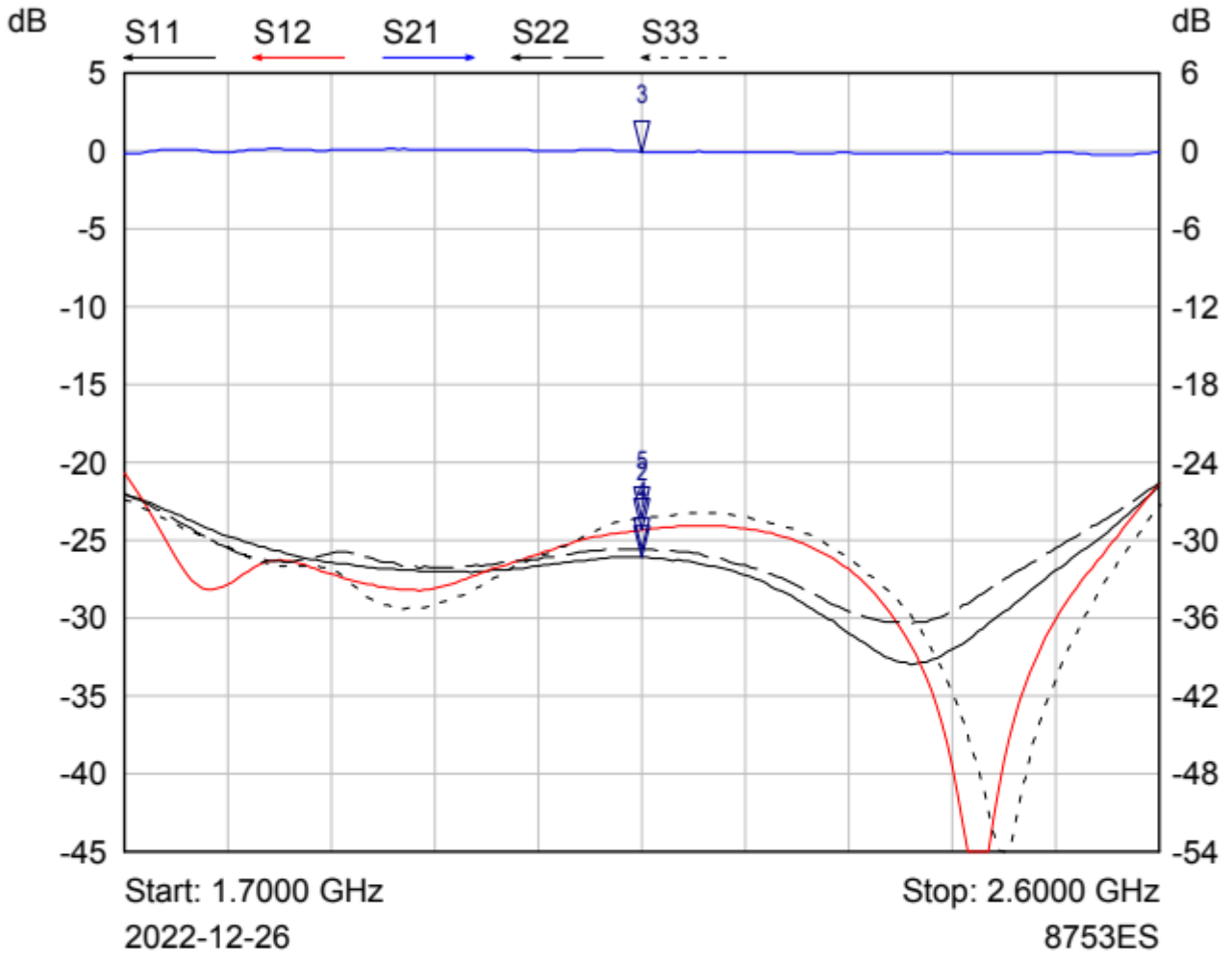
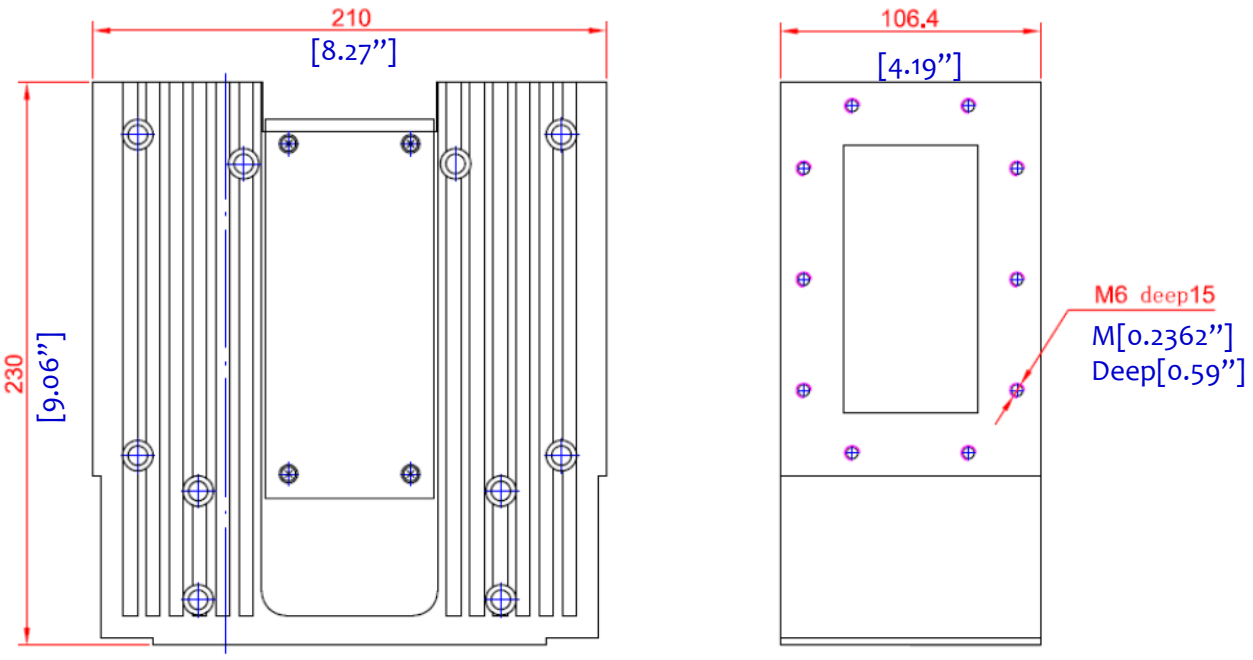
Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1	S11	2.1500 GHz	-26.10 dB	
2	S12	2.1500 GHz	-24.36 dB	
3	S21	2.1500 GHz	-0.07 dB	
4	S22	2.1500 GHz	-25.62 dB	
5	S33	2.1500 GHz	-23.60 dB	

Outline Drawing



Notes:
1. Package Material: Aluminum Alloy
2. Plating: Conductive Oxide
3. 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

Ordering Information

Part Number	Modification	Description
RFWC430C	WR430	1.7GHz-2.6GHz Waveguide Circulator

Important Notice

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