

UHF Dual Junction Circulator 600MHz-800MHz



Product Description

RFLC-216-1S-700 is a dual junction circulator with a frequency range of 600 to 800MHz.

The circulator has a minimum isolation of 19dB. The maximum insertion loss is 0.8dB.

Features

- High power handling up to 100W
- 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)

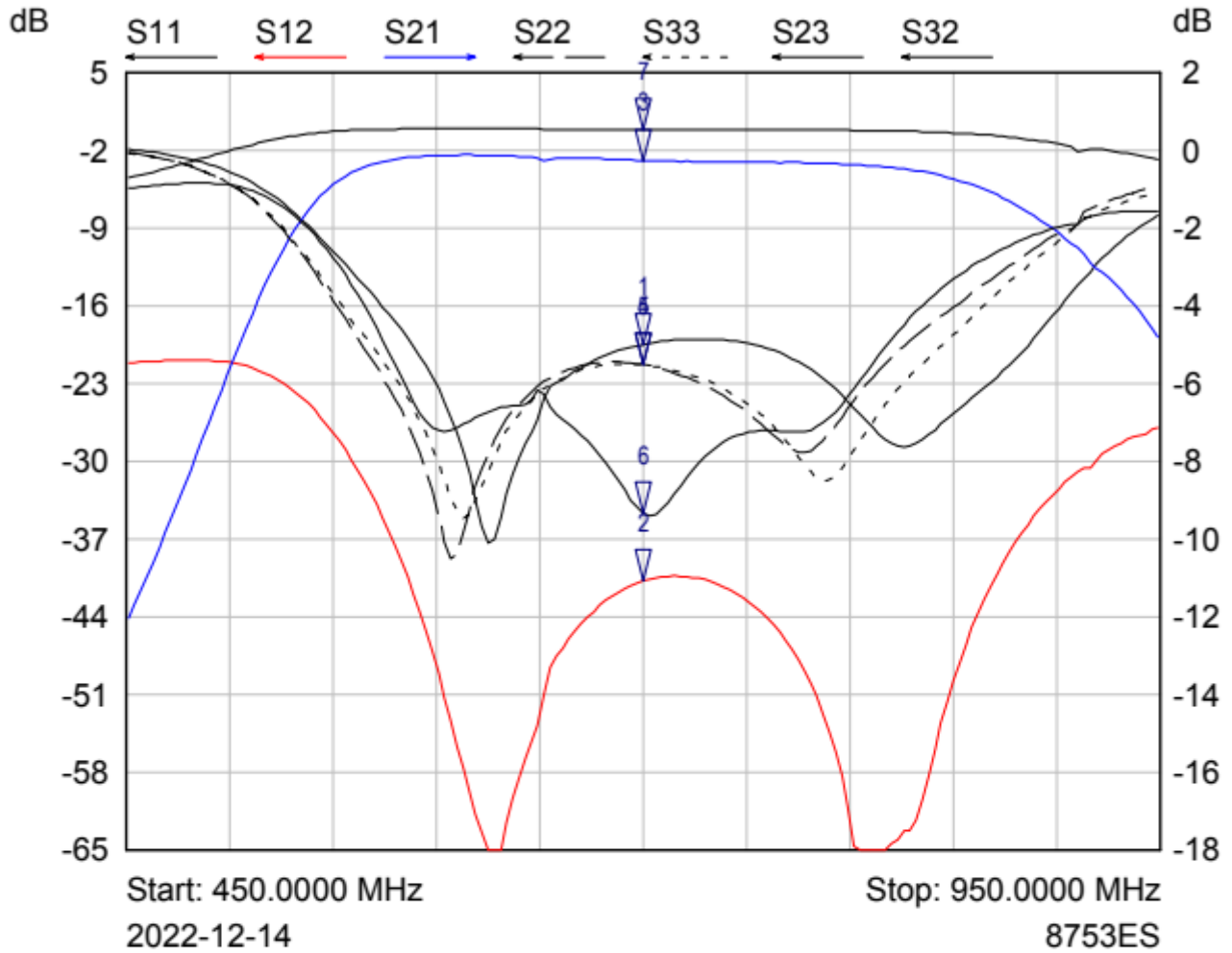
Parameter	Min.	Typ.	Max.	Units
Frequency Range		600 - 800		MHz
Insertion Loss	1-2		0.8	dB
	2-3		0.5	
Isolation	2-1	38		dB
	3-2	19		
VSWR			1.25	:1
Forward Power			100	W
Reverse Power			10	W
Rotation		Clockwise (Standard) Count Clockwise (upon request)		
Input / Output Connectors		SMA-Female		
Weight		-		lbs.
Finish		Nickel Plated		
Case Material		Aluminum Alloy / Copper		
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +60°C (Case Temperature)
Storage Temperature	-50°C to +125°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)

*For vibration testing details please see additional information section.

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	700.0000 MHz	-19.47 dB	
2 ▾	S12	700.0000 MHz	-40.75 dB	
3 ▾	S21	700.0000 MHz	-0.27 dB	
4 ▾	S22	700.0000 MHz	-21.30 dB	
5 ▾	S33	700.0000 MHz	-21.30 dB	
6 ▾	S23	700.0000 MHz	-34.68 dB	
7 ▾	S32	700.0000 MHz	-0.15 dB	

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
RFLC-216-1S-700	Standard	600MHz-800MHz Coaxial Circulator

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