500W Wide Band High Power Circulator
0.8GHz - 1GHz

Product Description

RFLC16HXD950 is a wide band high power circulator with a frequency range of 0.8 to 1GHz.

The circulator has a typical isolation of 20dB. The maximum insertion loss is 0.5dB.

The operating temperature of this product is within -20 to +70ºC

Features

- High power handling up to 500W
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature

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℃)

Parameter	Min	Typ	Max	Units
Frequency Range		0.8-1		GHz
Insertion Loss			0.5	dB
Isolation	20			dB
VSWR			1.2	:1
Forward Power (CW)			500	W
Reverse Power (CW)			500	W
Peak Power			1200	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connector Options		N-Female		
Impedance		50		Ω

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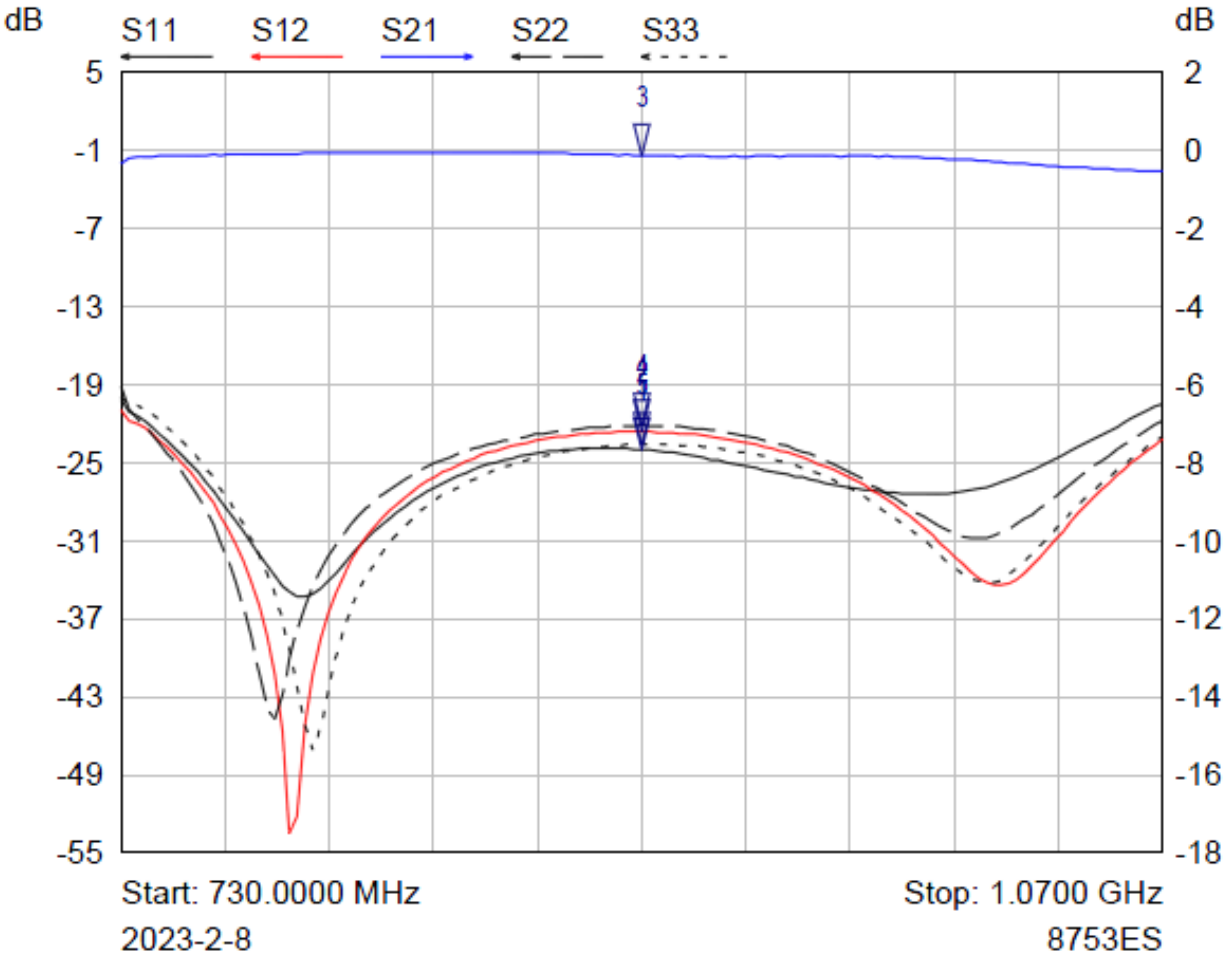
Environmental Specifications and Test Standards

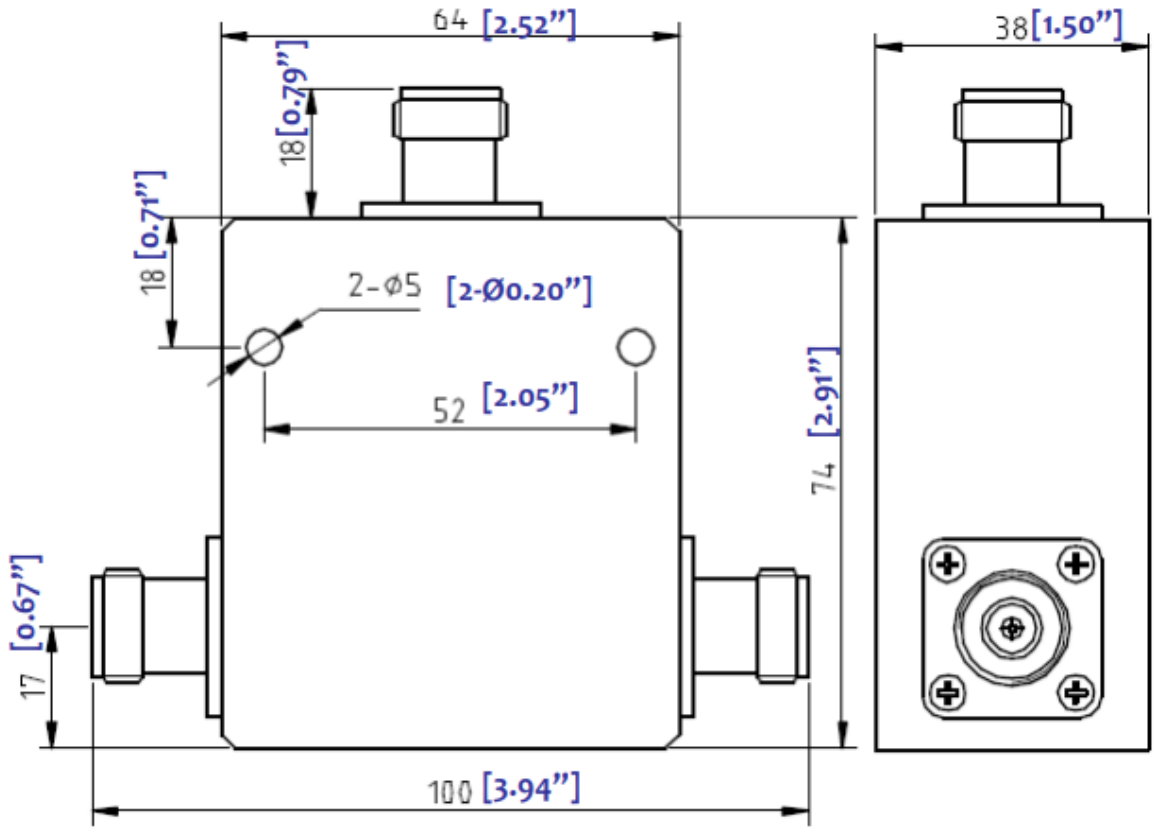
Parameter	Description
Operational Temperature	-20ºC to +70ºC (Case Temperature)
Storage Temperature	-45ºC to +85ºC
Thermal Shock	-40ºC → +85ºC (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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)

Typical Performance Plots

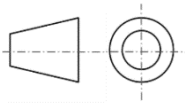


Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	900.0000 MHz	-23.98 dB	
2 ▽	S12	900.0000 MHz	-22.63 dB	
3 ▽	S21	900.0000 MHz	-0.12 dB	
4 ▽	S22	900.0000 MHz	-22.15 dB	
5 ▽	S33	900.0000 MHz	-23.61 dB	

Outline Drawing



Notes:
1. Package Material: Aluminum Alloy
2. Finish: Nickel Plated
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
RFLC16HXD950	Connectors N-Female	0.8GHz-1GHz Wide Band High Power Circulator

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