

VHF Dual Junction Isolator 225 - 400MHz



Product Description

RFLI-116-3 is VHF dual junction isolator with a frequency range of 225 to 400MHz.

The Isolator has a typical isolation of 36dB. The maximum insertion loss is 1.6dB.

The operating temperature of this product is from 0 to +55°C

Features

- High power handling up to 50W
- 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

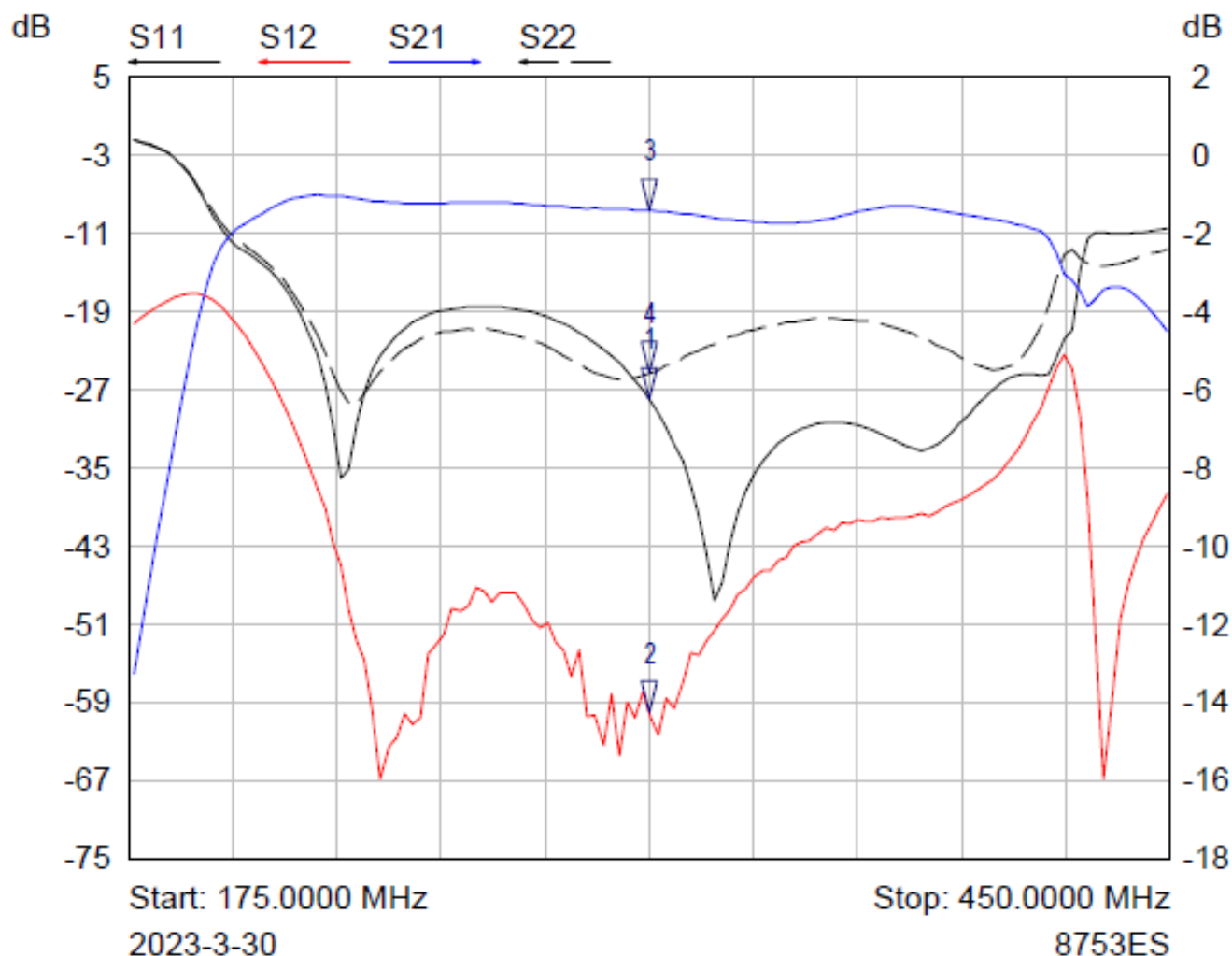
Electrical Specifications($T_A=25^\circ\text{C}$)

Parameter	Min	Type	Max	Units
Frequency Range		225-400		MHz
Insertion Loss			1.6	dB
Isolation	36			dB
VSWR			1.3	:1
Forward Power (CW)			50	W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input /Output Connectors		N-Female (RFLI-116-3N) SMA-Female (RFLI-116-3S)		
Impedance		50		Ω

Environmental Specifications and Test Standards

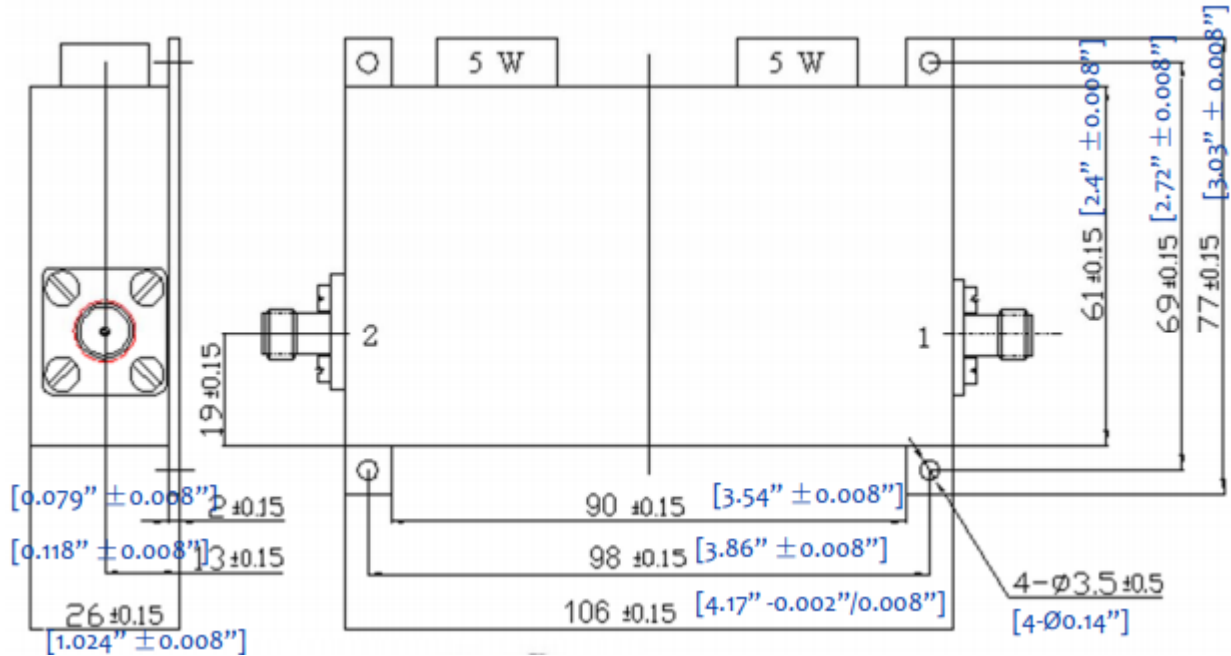
Parameter	Description
Operational Temperature	0°C to +55°C (Case Temperature)
Storage Temperature	-40°C to +100°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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)

Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	312.5000 MHz	-27.96 dB	
2 ▾	S12	312.5000 MHz	-60.10 dB	
3 ▾	S21	312.5000 MHz	-1.41 dB	
4 ▾	S22	312.5000 MHz	-25.35 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
RFLI-116-3N	N-Female	225MHz-400MHz VHF Dual Junctions Isolator N Female Connectors
RFLI-116-3S	SMA-Female	225MHz-400MHz VHF Dual Junctions Isolator SMA Female Connectors

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