

Ultra Wide Band Coaxial Isolator 12-18GHz



Product Description

The RFLI-601A-6 is an ultra wide band coaxial isolator with a frequency range of 12 to 18GHz.

The Isolator has a typical isolation of 20dB. The maximum insertion loss is 0.6dB.

The operating temperature of this product is from -20 to +70°C

Features

- High power handling up to 10W
- 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

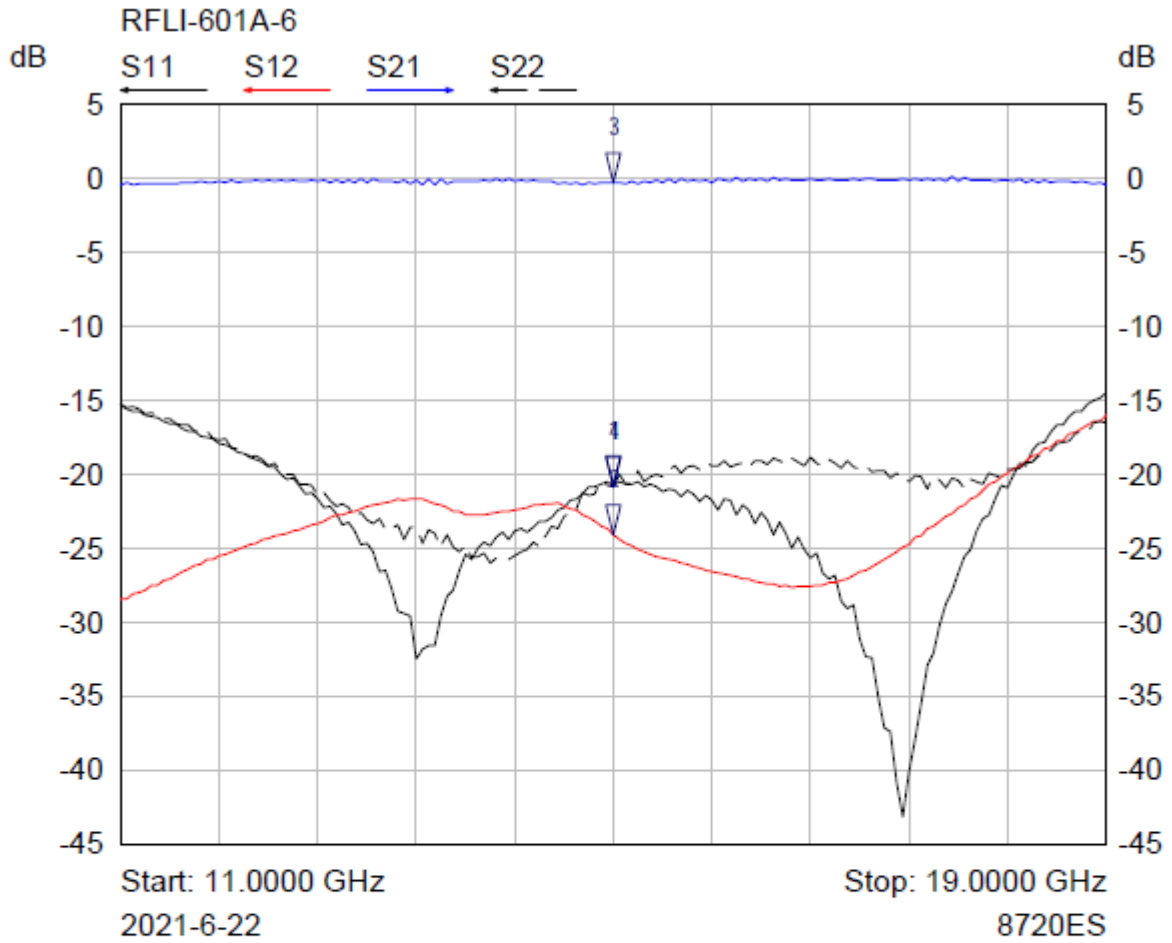
Electrical Specifications(T_A=25°C)

Parameter	Min	Type	Max	Units
Frequency Range		12-18		GHz
Insertion Loss		0.50	0.60	dB
Isolation (Note 1)	20	21		dB
VSWR		1.30	1.40	:1
Forward Power (CW)			10	W
Reverse Power (CW)			1	W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input /Output Connectors		SMA-Female		
Weight		0.044		lbs.
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°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)

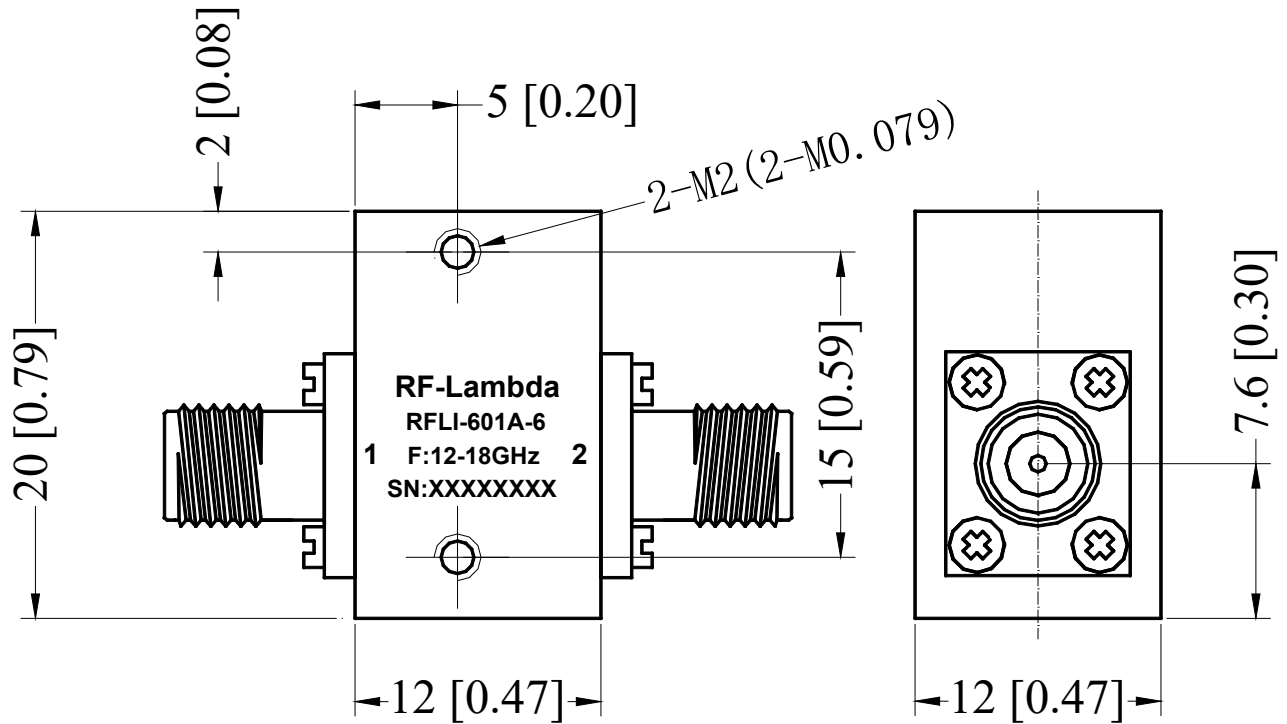
Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	15.0000 GHz	-20.72 dB	
2 ▾	S12	15.0000 GHz	-24.12 dB	
3 ▾	S21	15.0000 GHz	-0.23 dB	
4 ▾	S22	15.0000 GHz	-20.86 dB	

SN:210605

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Plating: Nickel
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-601A-6	SMA Female Connectors	12GHz-18GHz Coaxial Isolator

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