

Ultra Wide Band Coaxial Isolator 6GHz - 18GHz



Note: The photo is for illustration purposes only.
Please refer to the outline drawing

Product Description

RFLI601G06G18 is an ultra wide band coaxial isolator with a frequency range of 6 to 18GHz.

The isolator has a typical isolation of 12dB. The maximum insertion loss is only 2dB.

The input and output connectors are SMA-Female.

Features

- High power handling up to 10W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- Aerospace and military applications
- LMDS multi-carrier operation

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

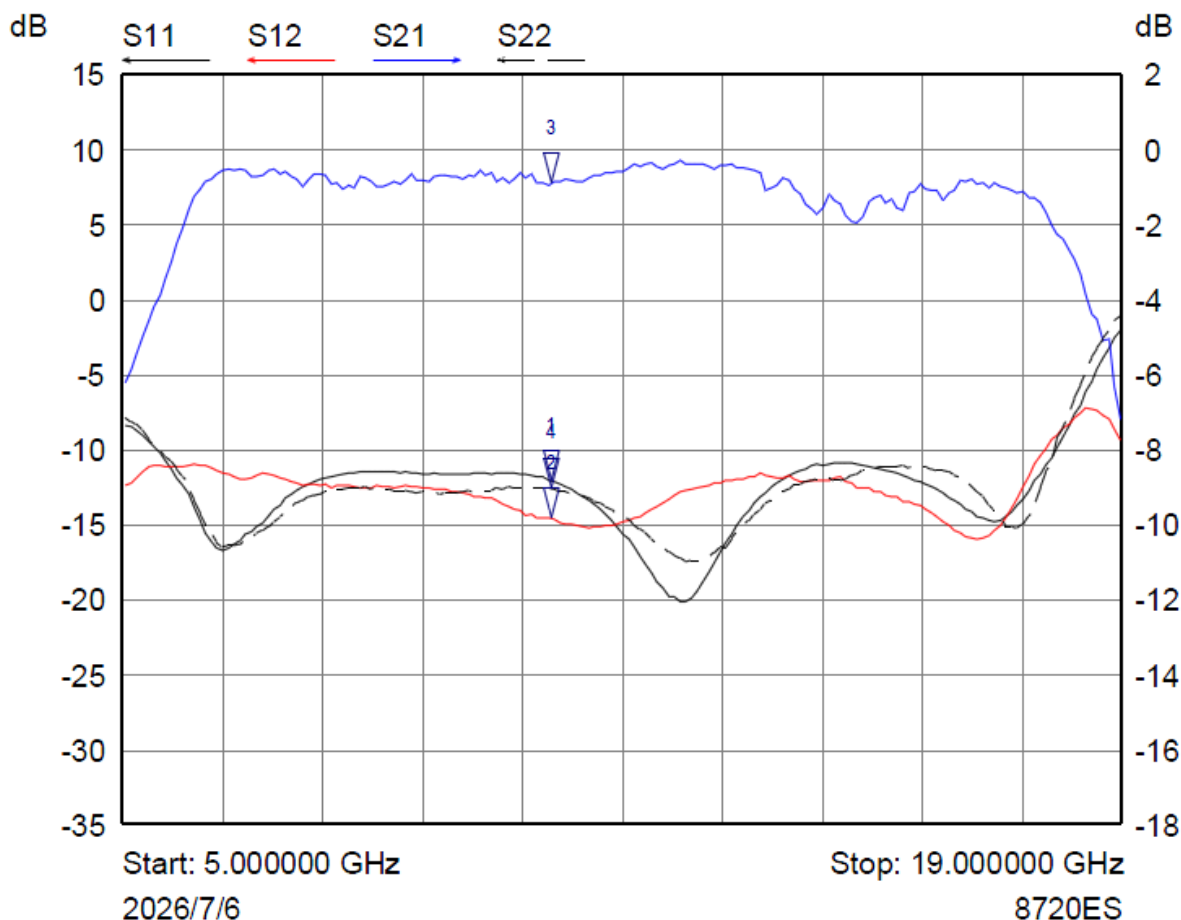
Electrical Specifications (T_A=+25°C)

Parameter	Min	Typ	Max	Units
Frequency Range	6		18	GHz
Insertion Loss		1.4	2.0	dB
Isolation	9	12		dB
VSWR		1.9	2.1	:1
Forward Power Handling (CW)			10	W
Reverse Power Handling (CW)			1	W
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input / Output Connectors		SMA-Female		
Impedance		50		Ω

Environmental Specifications and Test Standards

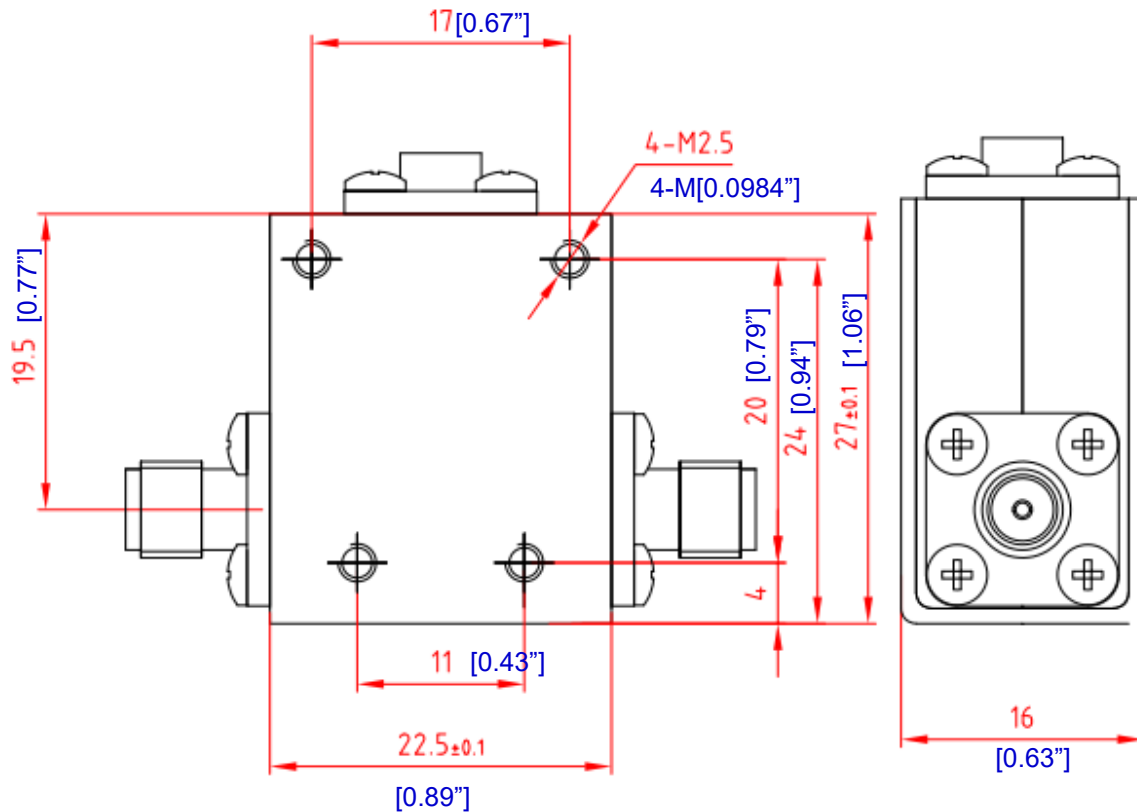
Parameter	Description
Operational Temperature	-20°C~+70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-20°C~+70°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
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



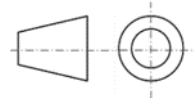
Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	11.000000 GHz	-12.0226 dB	
2 ▽	S12	11.000000 GHz	-14.5716 dB	
3 ▽	S21	11.000000 GHz	-0.8768 dB	
4 ▽	S22	11.000000 GHz	-12.5478 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Nickel Plated
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ± 0.5 [0.02], Mounting Hole Tolerances ± 0.2 [0.008] unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors.



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
RFLI601G06G18	Standard	6GHz-18GHz Coaxial Isolator

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