

Ultra Wide Band Coaxial Circulator 600MHz – 850MHz



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

Product Description

RFLC101M60M85 is an ultra wide band coaxial circulator with a frequency range of 600 to 850MHz.

The circulator has a minimum isolation of 17dB. The maximum insertion loss is 1.0dB.

The operating temperature of this product is within -40 to +85°C

Features

- High power handling up to 50W
- 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

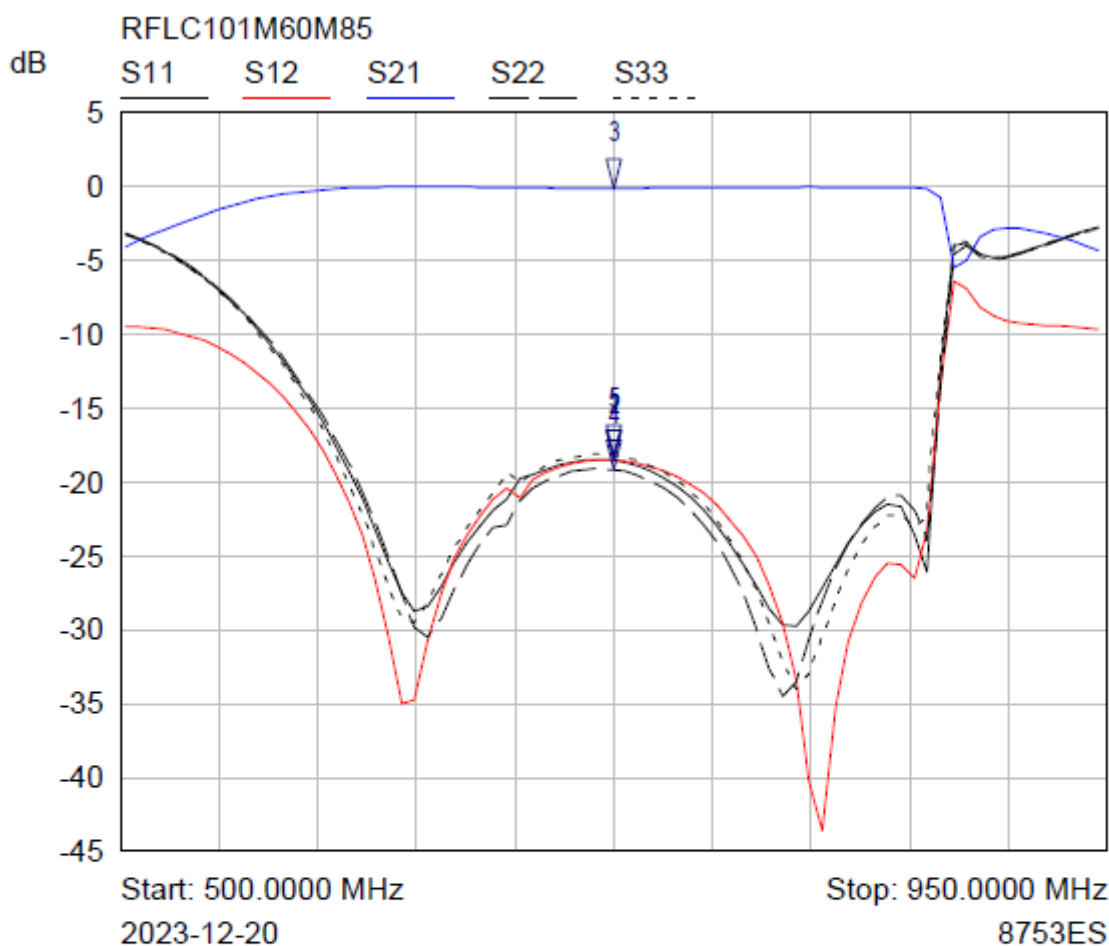
Electrical Specifications($T_A=25^\circ\text{C}$)

Parameter	Min	Typ	Max	Units
Frequency Range		600 - 850		MHz
Insertion Loss			1.0	dB
Isolation	17			dB
VSWR			1.33	:1
Forward Power			50	W
Rotation		Clockwise		
Input / Output Connectors		SMA–Female		
Impedance		50		Ω

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C to +85°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)

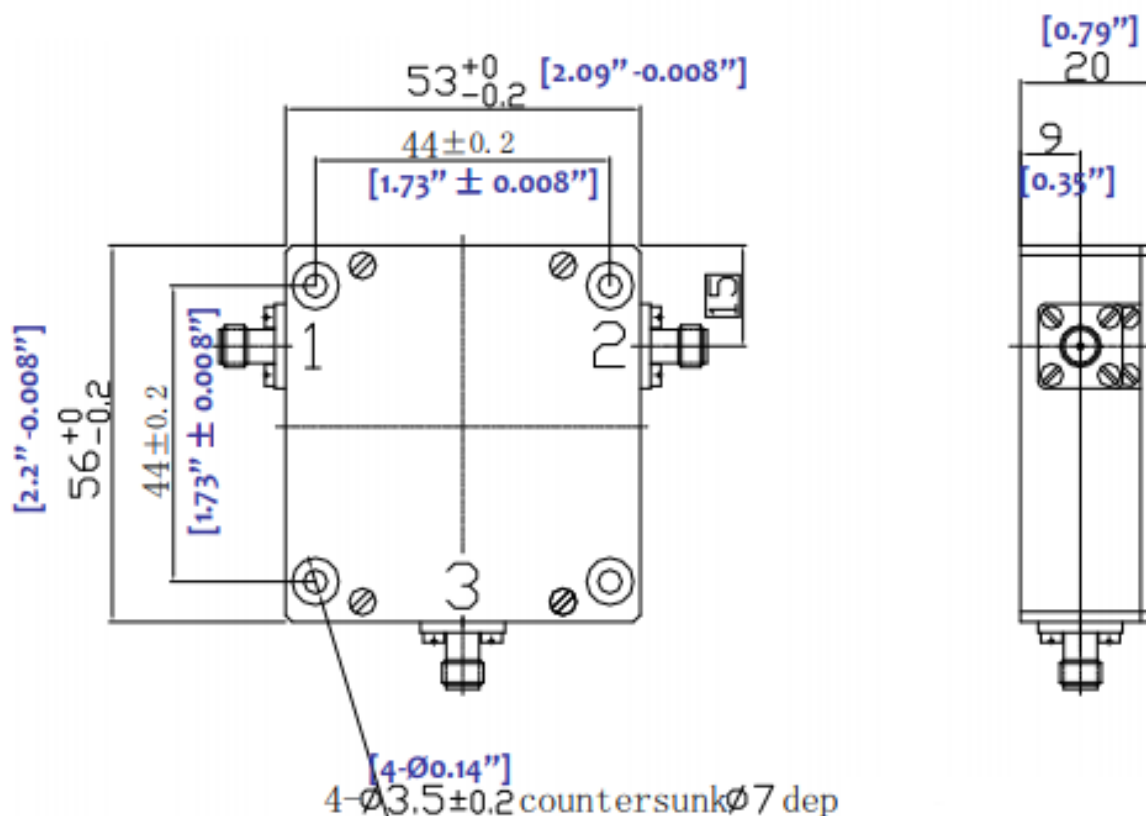
Typical Performance Plots



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	725.0000 MHz	-18.53 dB	
2 ▾	S12	725.0000 MHz	-18.55 dB	
3 ▾	S21	725.0000 MHz	-0.15 dB	
4 ▾	S22	725.0000 MHz	-19.16 dB	
5 ▾	S33	725.0000 MHz	-18.17 dB	

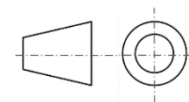
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Outline Drawing



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
RFLC101M60M85	Standard	600MHz-850MHz Coaxial Circulator

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