



Ultra Wide Band Coaxial Circulator 400~500MHz



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

Features

- High power handling up to 50W
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature

Typical Applications

- Aerospace and military applications
- Test and Measurement
- Wireless infrastructure

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

Parameter	Min.	Typ.	Max.	Units
Frequency Range	400 – 500			MHz
Insertion Loss		0.40	0.50	dB
Isolation (Note 1)	20	21		dB
VSWR		1.20	1.25	:1
Power Handling (CW)			50	W
Rotation	Clockwise (Standard) Counter Clockwise (Upon Request)			
Input / Output Connectors	RFLC101M40M50S(SMA-Female) RFLC101M40M50N(N-Female)			
Finish	Nickel Plated			
Case Material	Copper			
Impedance	50			Ω
Note 1: Units which have a narrower frequency bandwidth can achieve higher isolation & lower insertion loss Bandwidth (5 ~10) % x Center Frequency (Isolation >22dB) Bandwidth (20~30) % x Center Frequency (Isolation >21dB) Bandwidth (40~60) % x Center Frequency (Isolation >20dB) Ask manufacturer for details				

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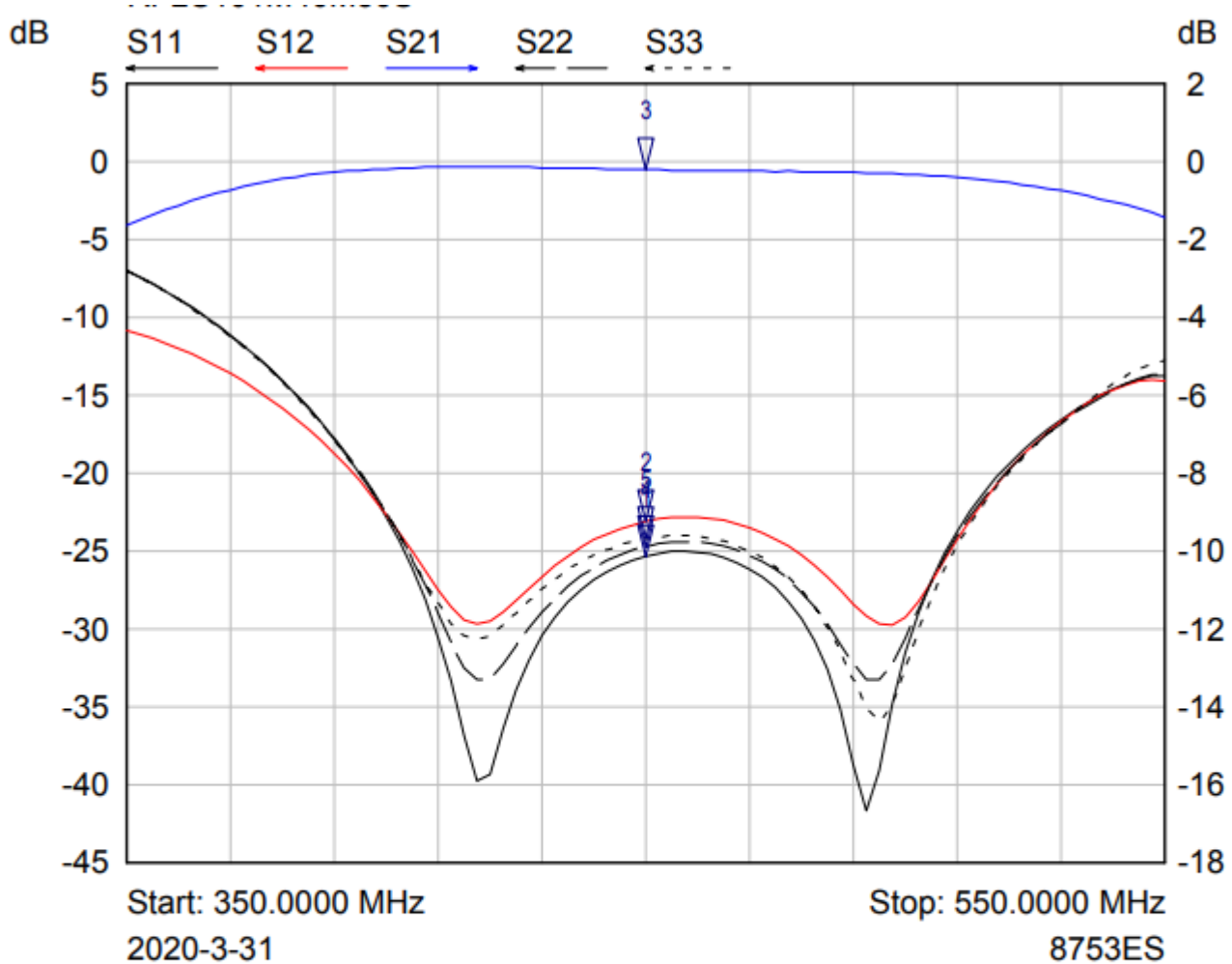
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-40°C~+85°C
Storage Temperature		-40°C~+85°C
Thermal Shock		1 Hour@ -40°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & 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

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Typical Performance Plots



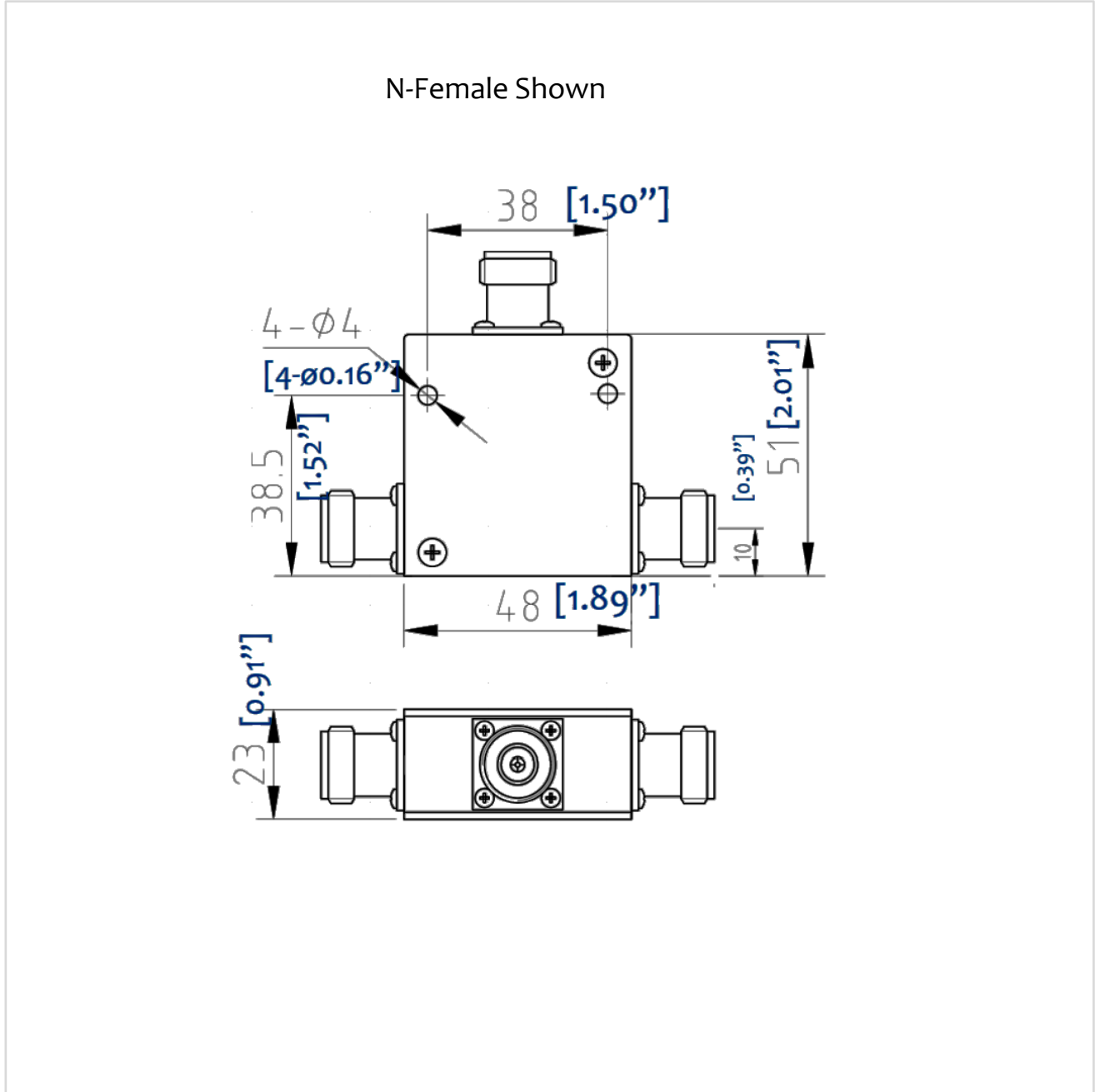
Mkr	Trace	X-Axis	Value	Notes
1 ▽	S11	450.0000 MHz	-25.32 dB	
2 ▽	S12	450.0000 MHz	-23.09 dB	
3 ▽	S21	450.0000 MHz	-0.21 dB	
4 ▽	S22	450.0000 MHz	-24.71 dB	
5 ▽	S33	450.0000 MHz	-24.18 dB	

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Outline Drawing:

All Dimensions in mm [inches]



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