



WR159 Ultra Wide Band Waveguide Circulator 4.9-7.05GHz



Features

- High power handling up to 400W CW.
- Wide band operation
- High isolation within operational band
- Low Insertion Loss

Typical Applications

- Test and Measurement
- Military and Aerospace

Electrical Specifications, T_A=25 °C

Parameter	Min.	Typ.	Max.	Units
Frequency Range	4.9-7.05			GHz
Insertion Loss		0.40	0.50	dB
Isolation	21	22		dB
VSWR		1.15	1.20	:1
Power Handling (CW)			400	W
Rotation	Clockwise (Standard) Counter Clockwise (Upon Request)			
Flange Type	UDR58 (UG 1731/U)			
Case Material	Aluminum Alloy			

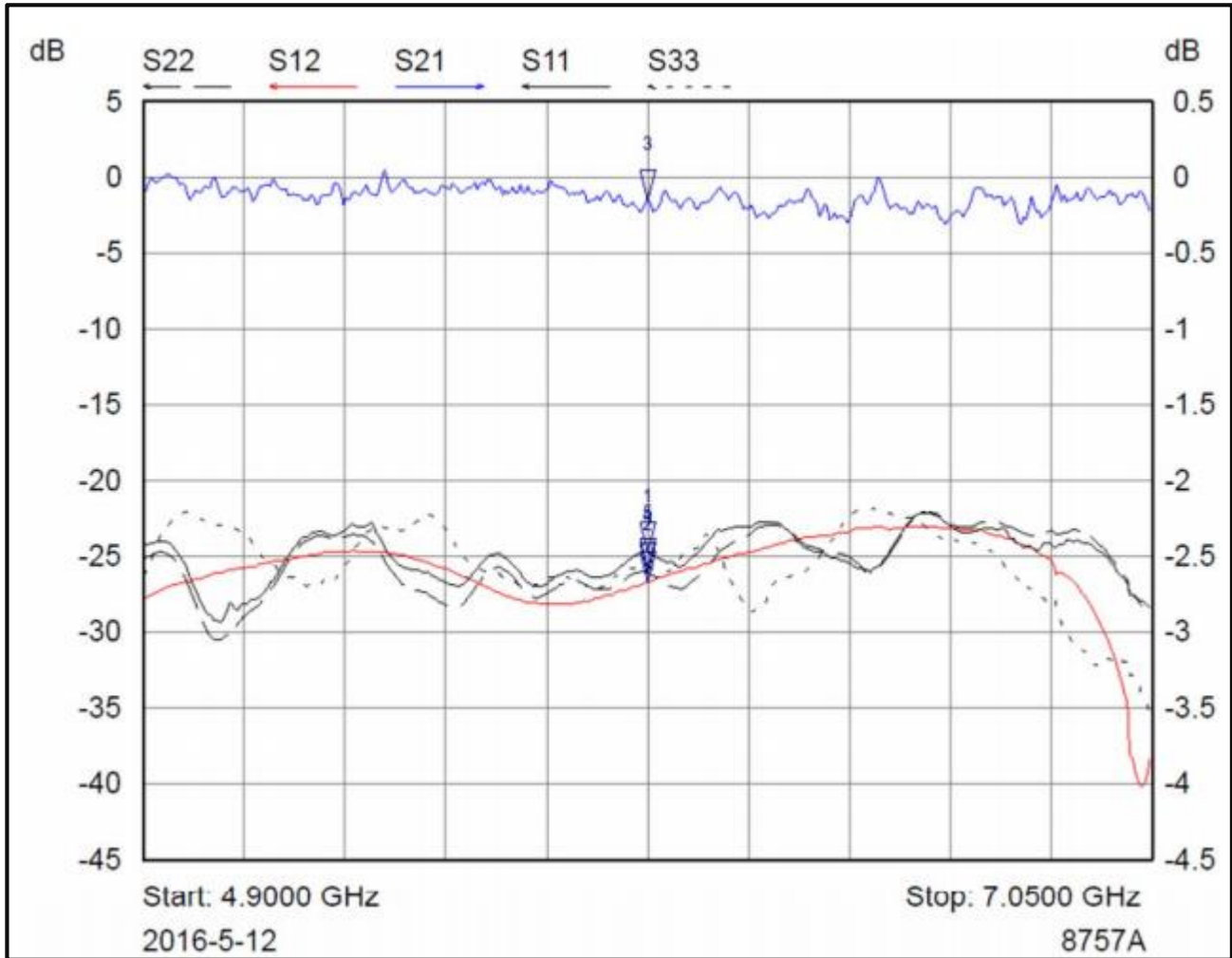
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-20°C~+60°C
Storage Temperature		-40°C~+85°C
Thermal Shock		1 Hour@ -45°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



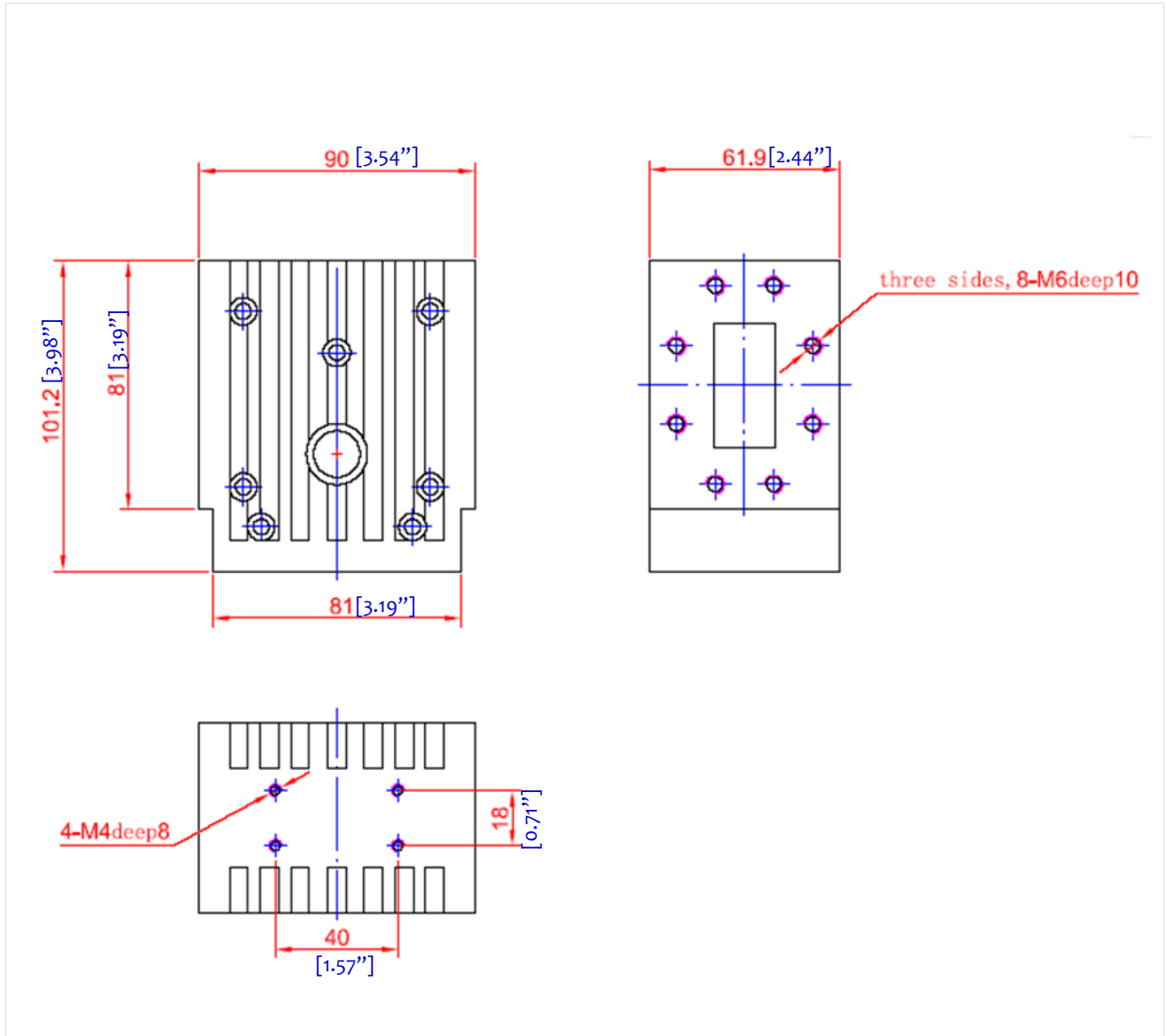
Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	5.9750 GHz	-24.76 dB	
2 ▾	S12	5.9750 GHz	-26.65 dB	
3 ▾	S21	5.9750 GHz	-0.15 dB	
4 ▾	S22	5.9750 GHz	-26.09 dB	
5 ▾	S33	5.9750 GHz	-25.78 dB	

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Outline Drawing:

All Dimensions in mm [inches]



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