



WR650 Waveguide Circulator 1.12-1.7GHz



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



Features

- High power handling up to 1KW CW.
- Wide band operation
- High isolation
- Low Insertion Loss

Typical Applications

- Test and Measurement
- Military and Aerospace

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

Parameter	Min.	Typ.	Max.	Units
Frequency Range	1.12-1.7			GHz
Insertion Loss			0.50	dB
Reverse Isolation	18			dB
VSWR			1.30	:1
Power Handling (CW)			1	KW
Rotation	Clockwise (Standard) Counter Clockwise (Upon Request)			
Flange Type	UG1720 / U			
Finish	Conductive Oxide			
Case Material	Aluminum Alloy			
Note 1: Units which have a narrower frequency bandwidth can achieve higher isolation & lower insertion loss Bandwidth (5 ~ 10) % x Center Frequency (Isolation >21dB) Bandwidth (20 ~ 30) % x Center Frequency (Isolation >20dB) Bandwidth (40 ~ 60) % x Center Frequency (Isolation >19dB) Ask manufacturer for details				

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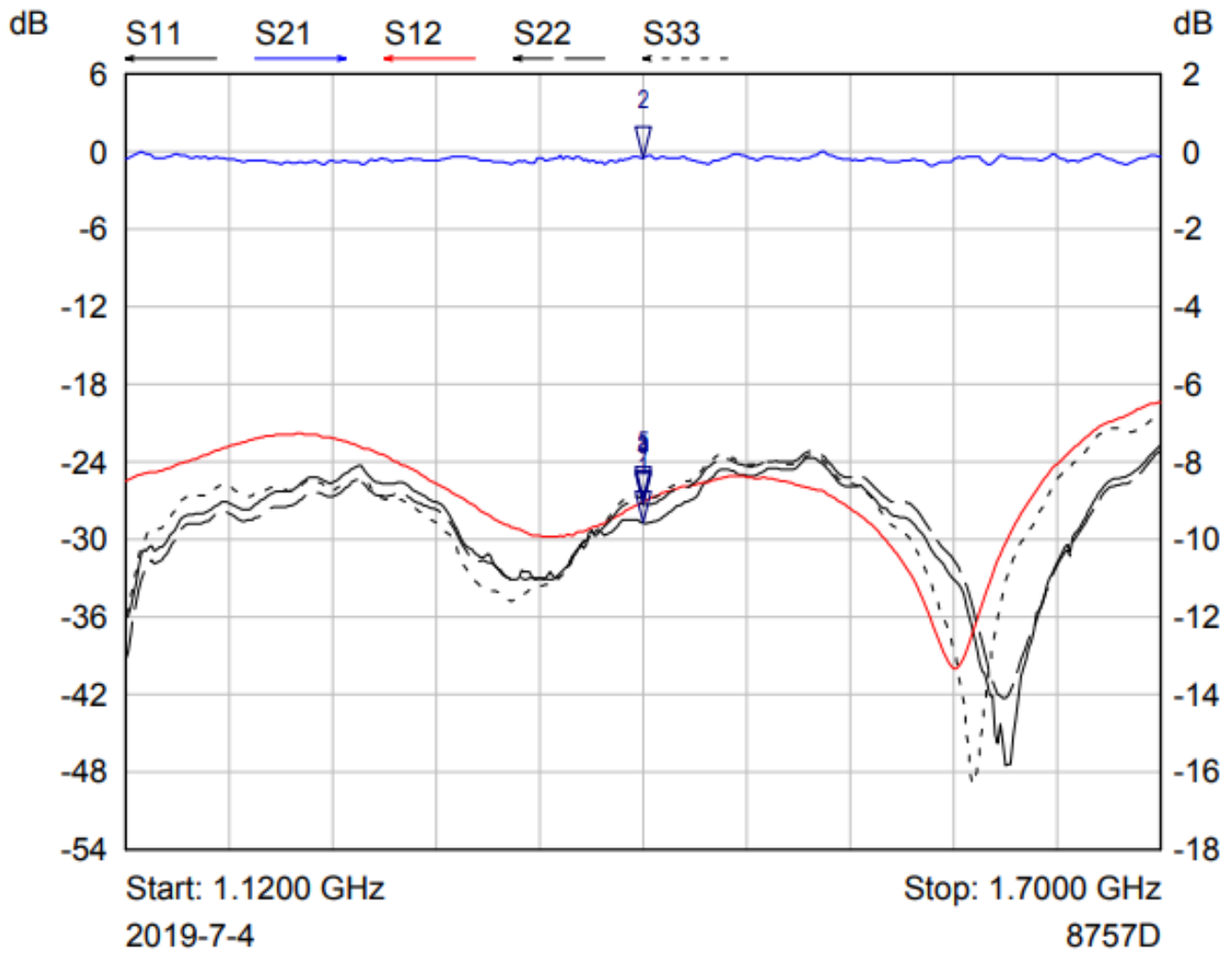
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-10°C~+50°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



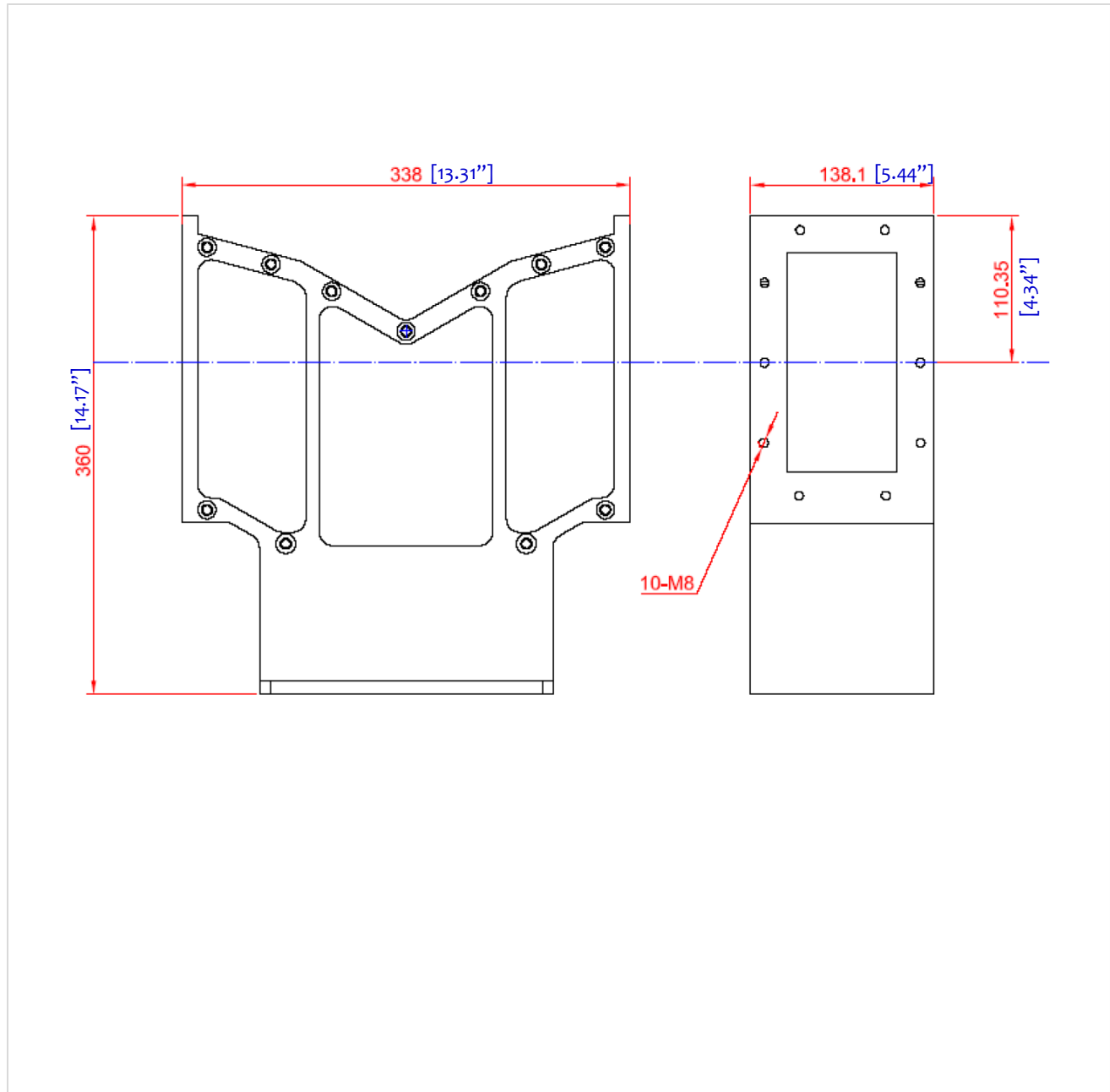
Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	1.4100 GHz	-28.75 dB	
2 ▾	S21	1.4100 GHz	-0.15 dB	
3 ▾	S12	1.4100 GHz	-27.12 dB	
4 ▾	S22	1.4100 GHz	-27.25 dB	
5 ▾	S33	1.4100 GHz	-26.82 dB	

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Outline Drawing:

All Dimensions in mm [inches]



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