



250W High Power Circulator 2.7~3.1GHz

Features

- High power handling up to 250W
- 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	2.7- 3.1			GHz
Insertion Loss			0.3	dB
Isolation (Note 1)	20			dB
VSWR			1.2	:1
Power Handling (CW)			250	W
Rotation	Clockwise (Standard) Counter Clockwise (Upon Request)			
Input / Output Connectors	-			
Finish	Nickel Plated			
Case Material	Aluminum Alloy / Copper			
Impedance	50			Ω
<p>Note 1: Units which have a narrower frequency bandwidth can achieve higher isolation & lower insertion loss</p> <p>Bandwidth (5 ~10)% x Center Frequency (Isolation >22dB)</p> <p>Bandwidth (20~30)% x Center Frequency (Isolation >21dB)</p> <p>Bandwidth (40~60)% x Center Frequency (Isolation >20dB)</p> <p>Ask manufacturer for details</p>				

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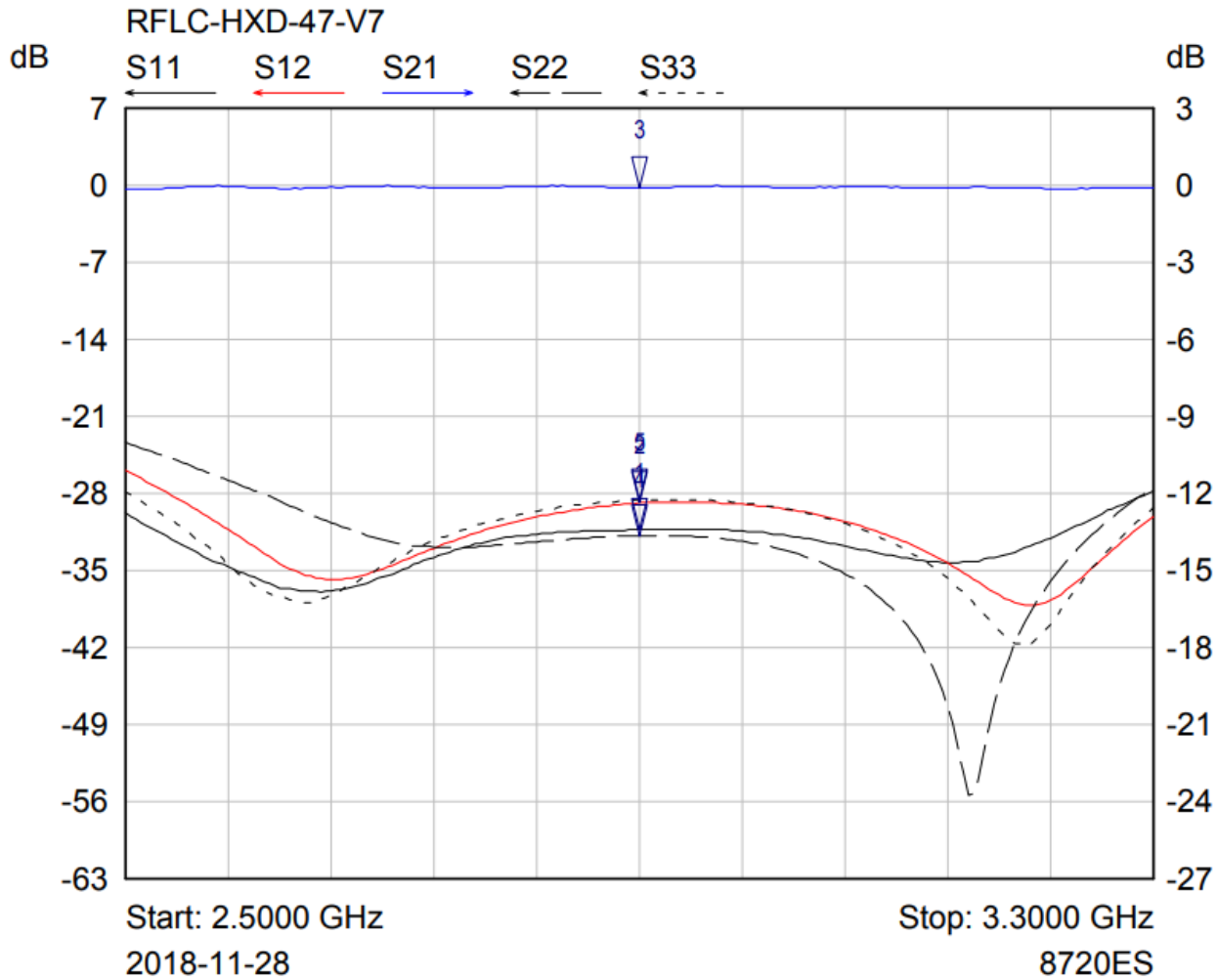
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-20°C~+75°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	2.9000 GHz	-31.28 dB	
2	S12	2.9000 GHz	-28.87 dB	
3	S21	2.9000 GHz	-0.09 dB	
4	S22	2.9000 GHz	-31.85 dB	
5	S33	2.9000 GHz	-28.62 dB	

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