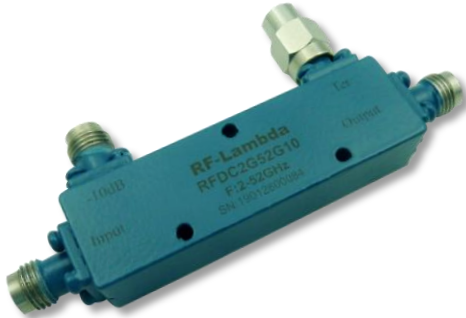




Coaxial 20W 10dB Directional Coupler 2 - 52GHz



Features

- High power handling up to 20W
- Ultra Wide band operation
- High directivity within operational band
- Low Insertion Loss
- High peak to average handling capability

Typical Applications

- Stable performance over temperature
- Aerospace and military applications
- LMDS multi-carrier operation

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

Parameter	Min.	Typ.	Max.	Units
Frequency Range	2		52	GHz
Nominal Coupling	9	10.5	12	dB
Frequency Sensitivity		± 0.7	± 1.25	dB
Directivity	10	12		dB
Insertion Loss (Excl. Coupling)			2.0	dB
Insertion Loss (True)		2.5	3.0	dB
VSWR Primary		1.6	1.8	:1
VSWR Secondary		1.6	1.8	:1
Power Rating	Average	20		W
	Peak	300		W
Impedance		50		Ohms
Weight		1.3 Max.		Ounces
Input / Output Connectors		2.4mm - Female		
Material		Aluminum		
Finish		Blue Paint		

Coaxial 20W 10dB Directional Coupler 2-52GHz



Environmental Specifications and Test Standards

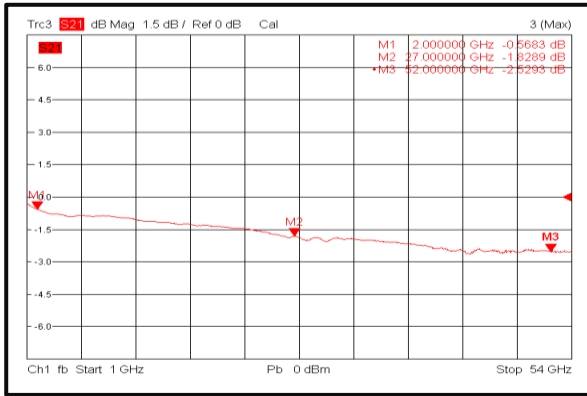
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 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	MIL-STD-883 (For Hermetically Sealed Units)

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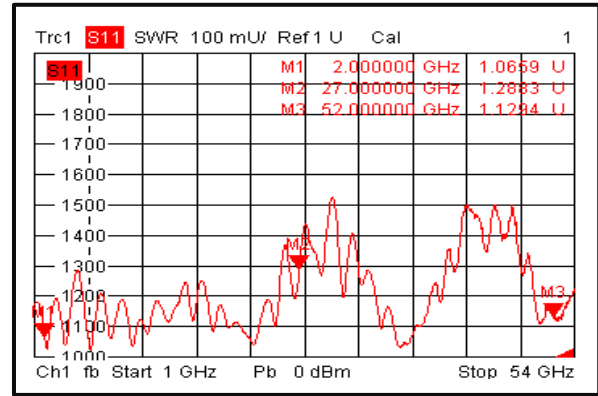


Typical Performance Plots

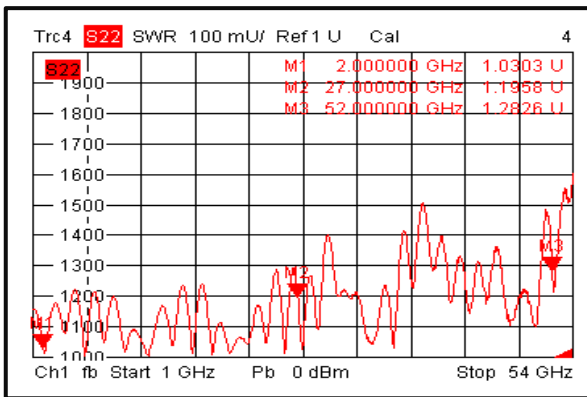
Insertion Loss



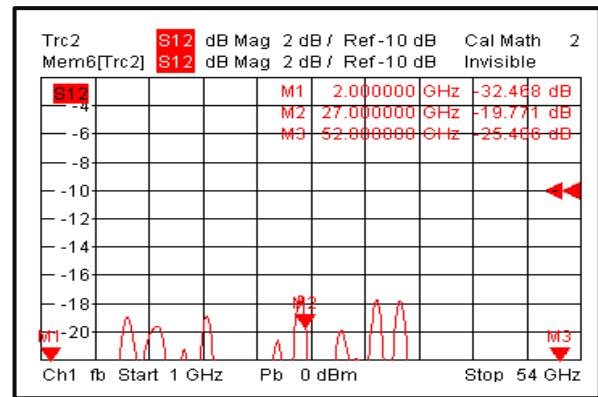
Primary VSWR



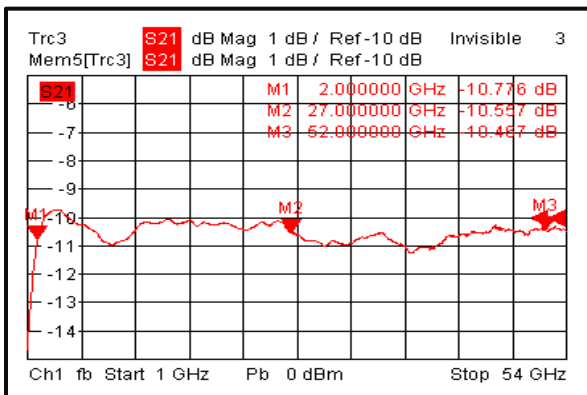
Secondary VSWR



Directivity



Nominal Coupling



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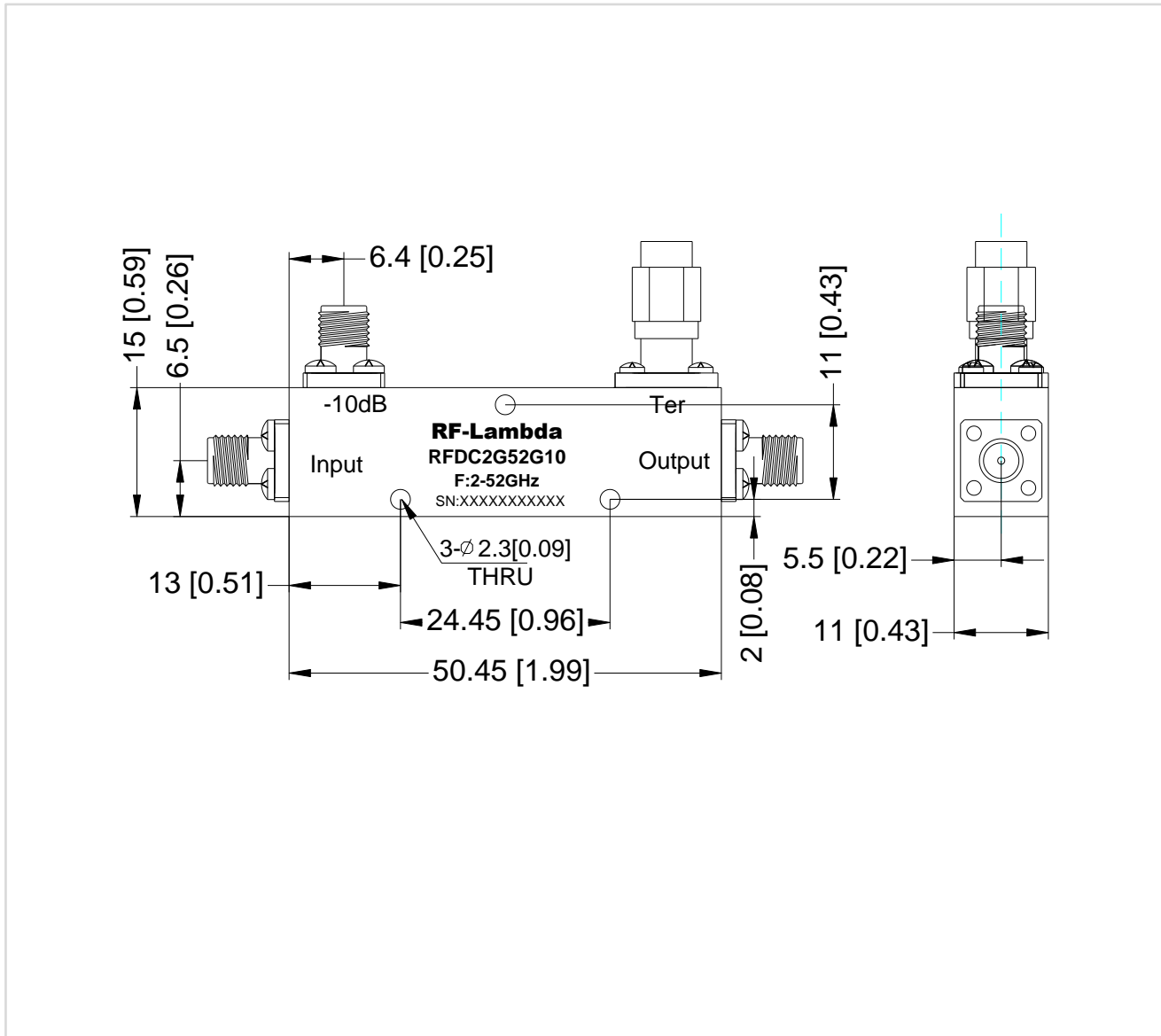


Outline Drawing:

All Dimensions in mm (inches)

Outline Tolerances $\pm 0.5(0.02)$

Mounting Holes Tolerances $\pm 0.2(0.008)$



Important Notice

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