



### Coaxial 50W 20dB Directional Coupler 2 - 8GHz



#### Features

- High power handling up to 50W
- Wide band operation
- High isolation 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

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

Parameters		Min.	Typ.	Max.	Units
Frequency Range		2		8	GHz
Nominal Coupling		19	20	21	dB
Frequency Sensitivity			$\pm 0.5$	$\pm 0.7$	dB
Directivity		20	22		dB
Insertion Loss (Excl Coupling)				0.4	dB
Insertion Loss (true)			0.3	0.45	dB
VSWR Primary			1.25	1.3	:1
VSWR Secondary			1.25	1.3	:1
Power Rating	Average	50			W
	Peak	2			KW
Impedance		50			Ohms
Weight		3.17			Ounces
Input / Output Connectors		N-Female			
Material		Aluminum			
Finishing		Blue Paint			



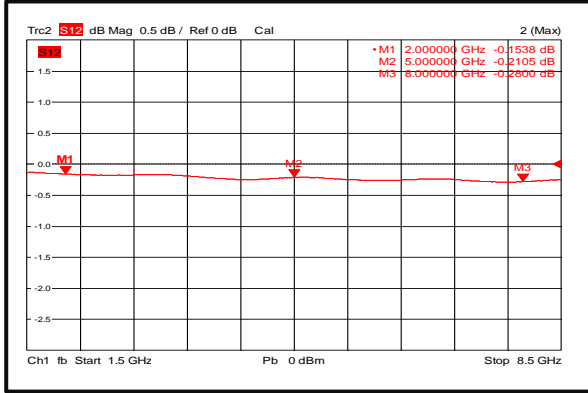
**Environmental Specifications and Test Standards**

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)

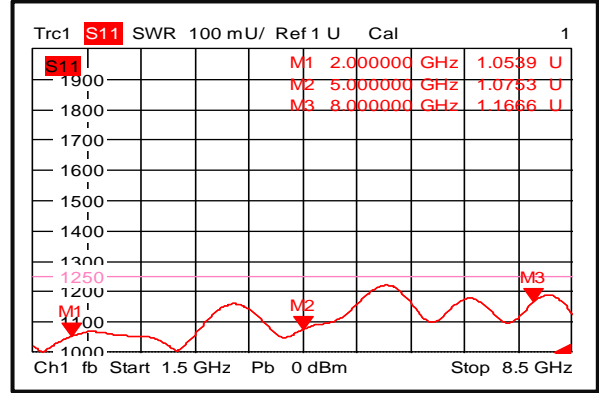


**Typical Performance Plots**

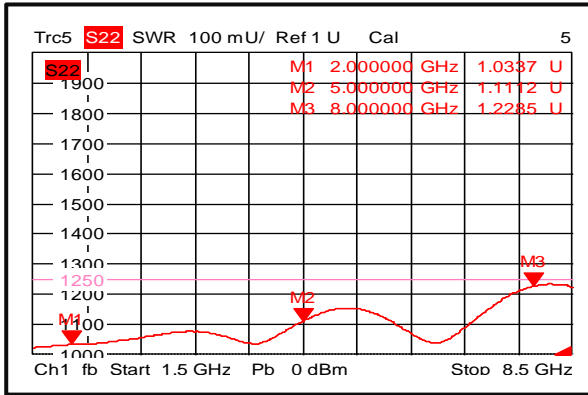
**Insertion Loss**



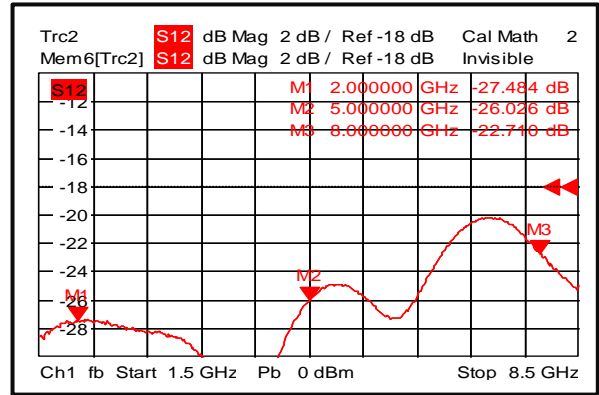
**Primary VSWR**



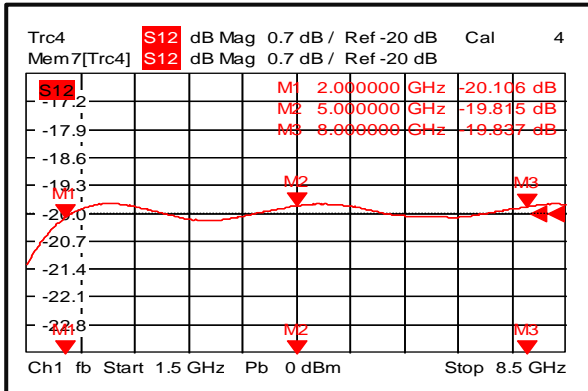
**Secondary VSWR**



**Directivity**



**Nominal Coupling**

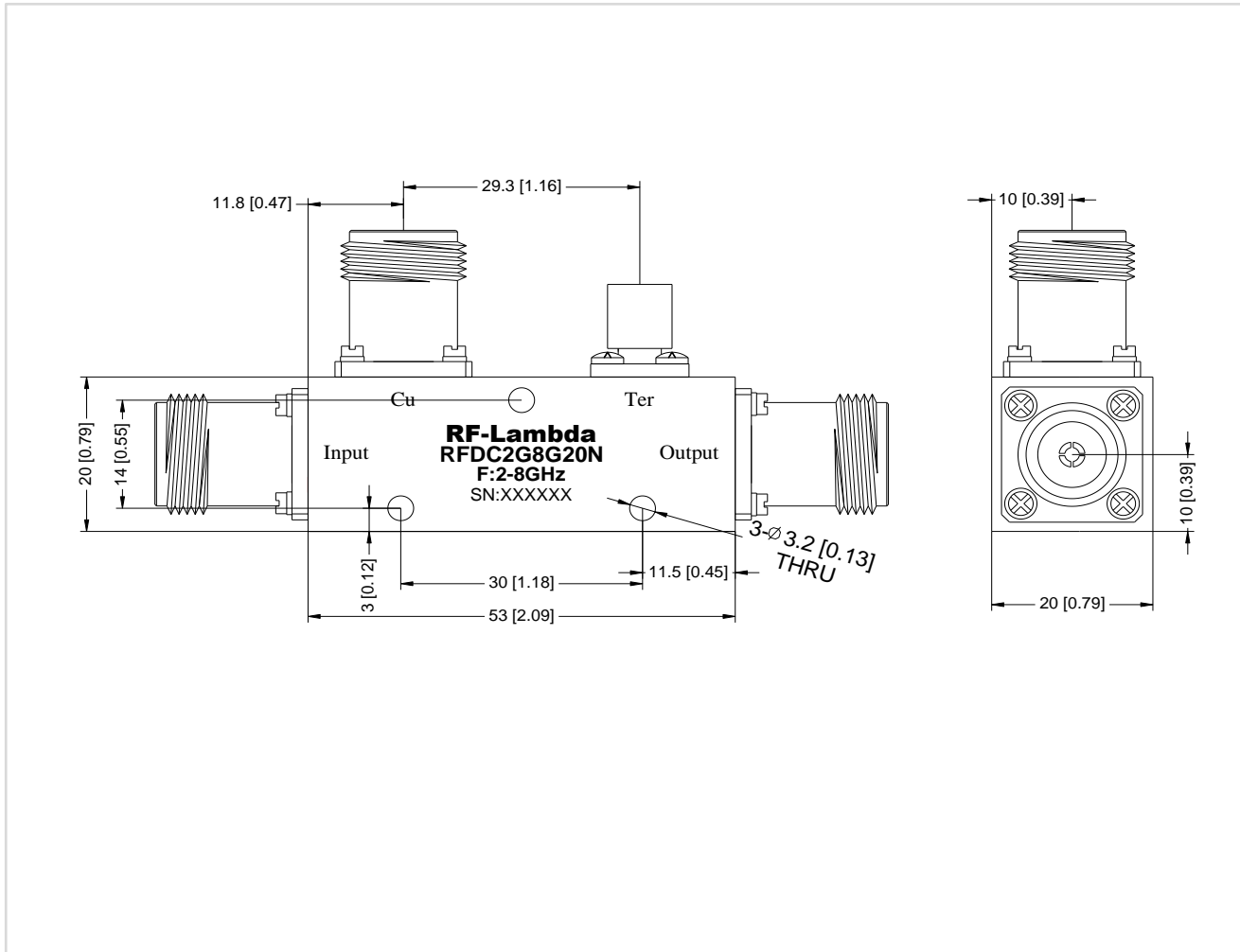




**Outline Drawing:**

All Dimensions in mm [inches]

Tolerance  $\pm 0.25$  [0.01]



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**Important Notice**

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