



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



#### Features

- High power handling up to 50W
- Ultra 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



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			$\pm 0.7$	$\pm 1.0$	dB
Directivity		20	22		dB
Insertion Loss (Excl Coupling)				0.4	dB
Insertion Loss (true)			0.25	0.4	dB
VSWR Primary			1.15	1.2	:1
VSWR Secondary			1.15	1.2	:1
Power Rating	Average	50			W
	Peak	1			kW
Impedance		50			Ohms
Weight		1.25			ounces
Input / Output Connectors		SMA-Female			
Material		Aluminum			
Finishing		Blue Paint			

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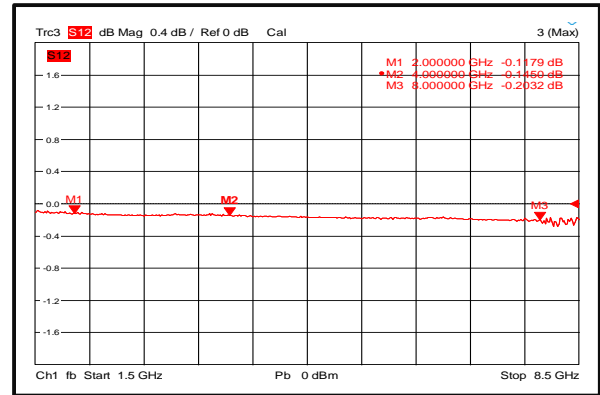


### Environmental Specifications

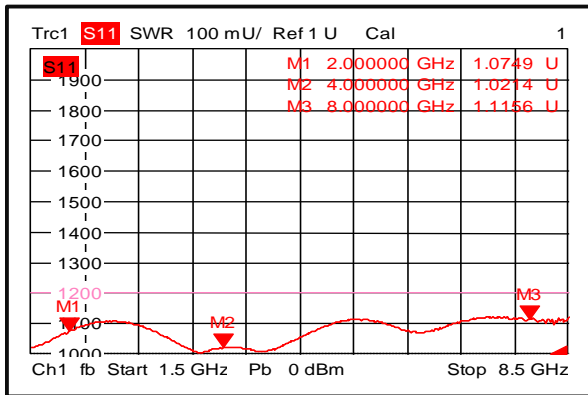
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-55 ~ +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40 °C
Shock	20G for 11msec half sine wave, 3 axis both directions

### Typical Performance Plots

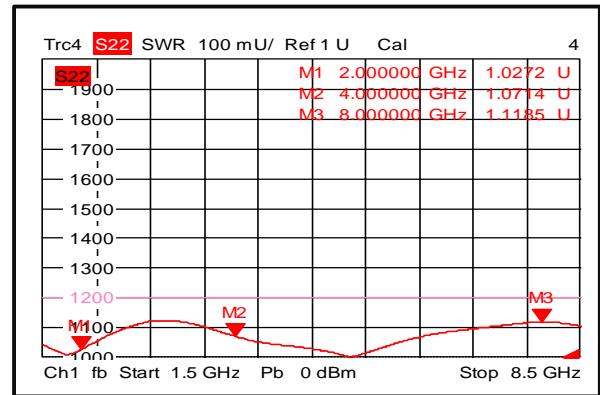
#### Insertion Loss



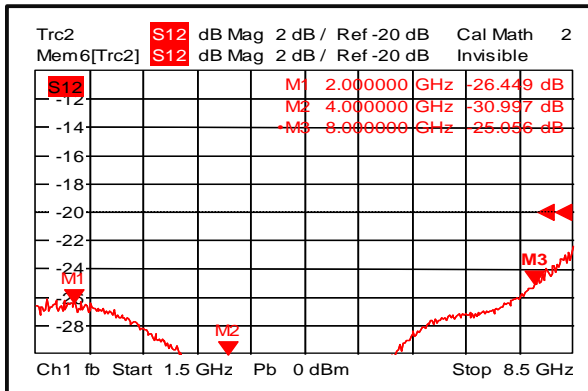
### Primary VSWR



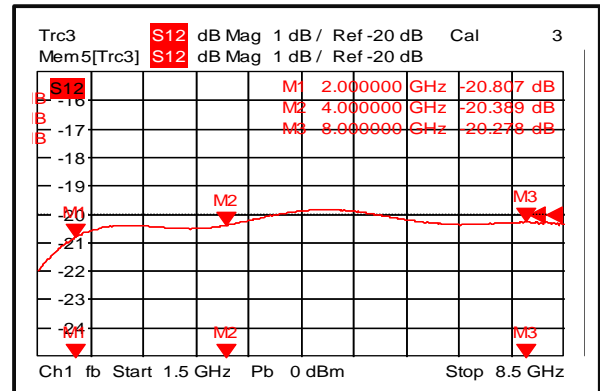
### Secondary VSWR



### Directivity



### Nominal Coupling





# RF-LAMBDA

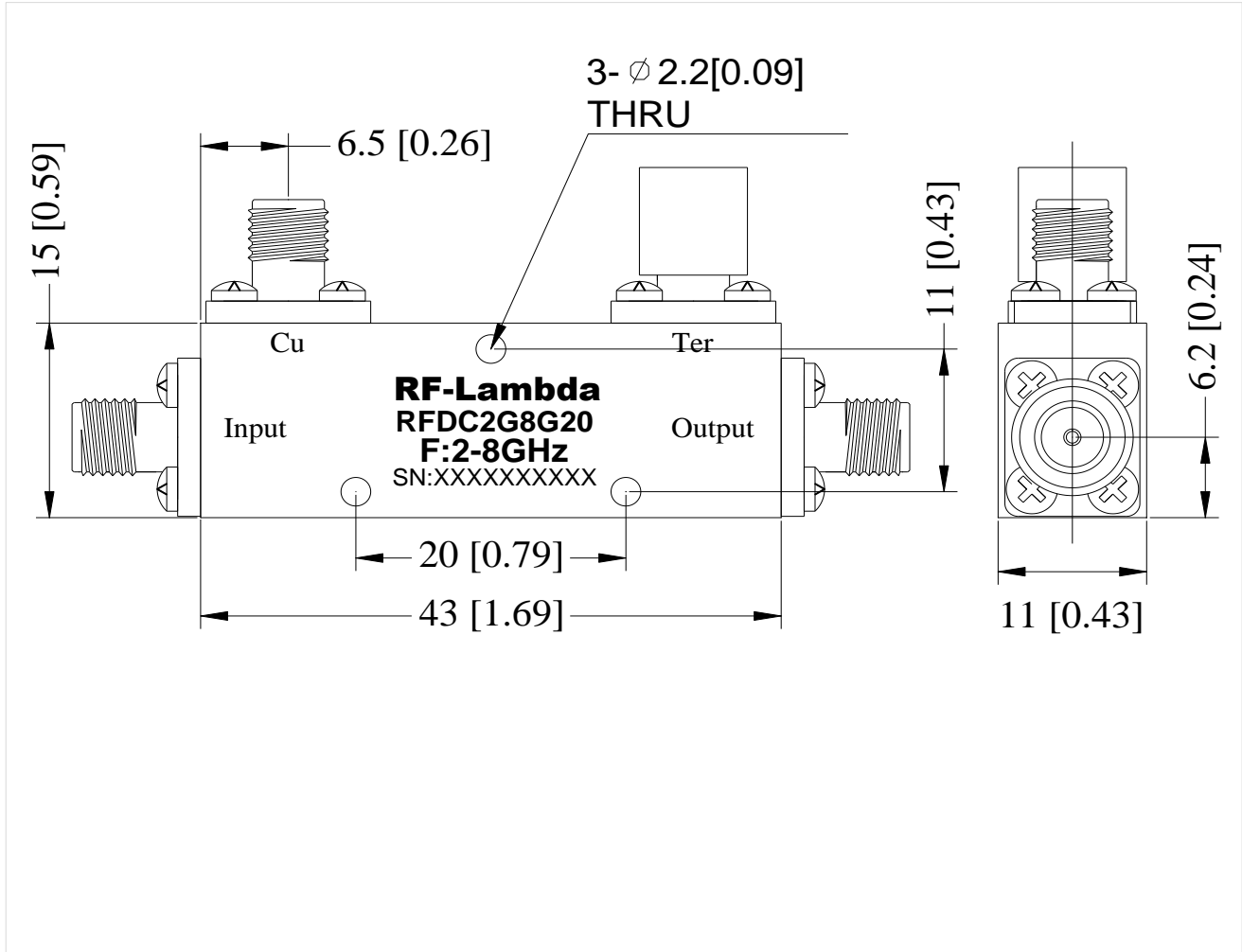
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## RFDC2G8G20

### Outline Drawing:

All Dimensions in mm [inches]

Tolerance  $\pm 0.2$  [0.008]



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