



### Coaxial 50W 1-4GHz 20dB Directional Coupler



#### Features

- High power handling capability up to 50W
- Wide band operation
- High isolation within operational band
- Low Insertion loss
- Stable over temperature performance.
- Aerospace and military application
- LMDS multi-carrier operation
- High peak to average handling capability
- All specifications can be modified upon request

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#### Electrical Specifications

Parameters		Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		1		2	2		4	GHz
Nominal Coupling		19	20	21	19	20	21	dB
Frequency Sensitivity			±0.5	±0.7		±0.5	±0.7	dB
Directivity		20	25		20	22		dB
Insertion Loss (Excl Coupling)			0.2	0.3		0.3	0.4	dB
VSWR Primary			1.1	1.2		1.15	1.2	:1
VSWR Secondary			1.1	1.2		1.15	1.2	:1
Power Rating	Average	50						W
	Peak	500						W
Impedance		50						Ohms
Operating Temperature		-45 to +85						°C
Weight		2.12						ounces
Input / Output Connector		SMA-Female						
Material		Aluminum						
Finishing		Blue Paint						

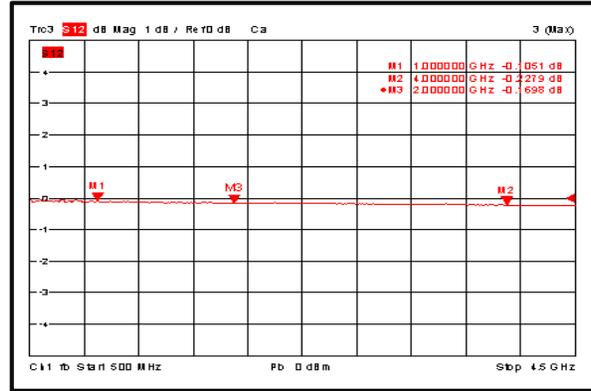


### Environmental Specifications

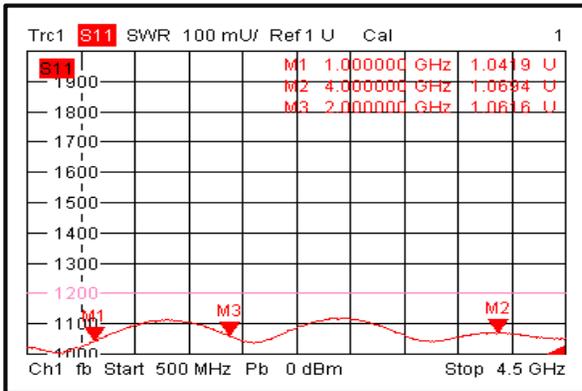
Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH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

### Typical Performance Plots

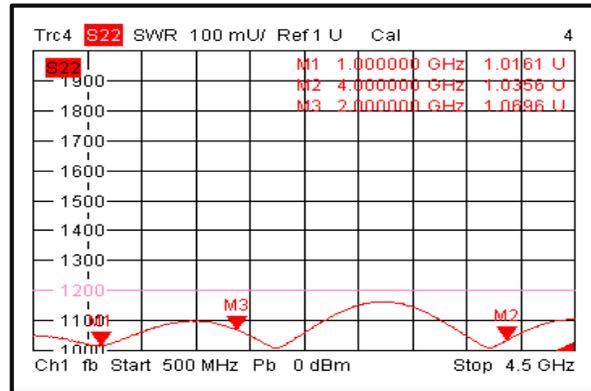
#### Insertion Loss



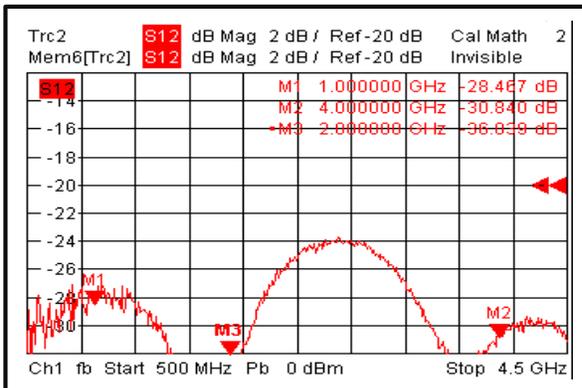
### Primary VSWR



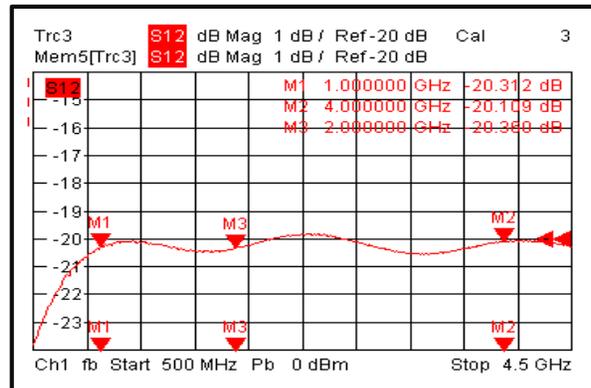
### Secondary VSWR



### Directivity



### Nominal Coupling

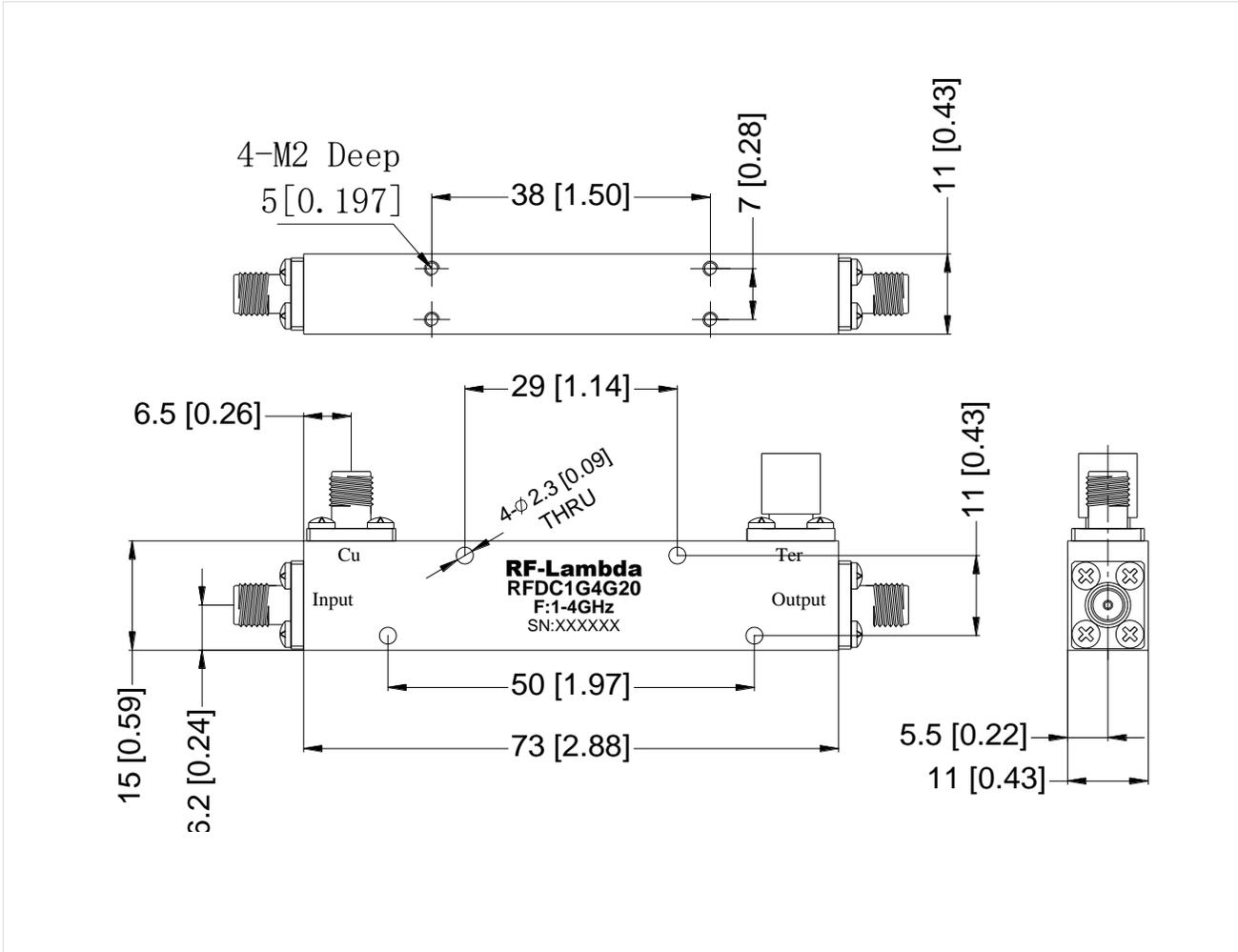




### Outline Drawing:

All Dimensions in mm [inches]

Tolerance  $\pm 0.2$  [0.008]



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