



Coaxial 50W 1-4GHz 20dB Directional Coupler



- High power handle capability up to 50W
- Wide band operation
- High isolation within operational band
- Low Insertion loss
- Low temperature coefficient material offer stable performance over temperature
- Aerospace and military application
- LMDS multi-carrier operation
- High peak to average handle 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	
VSWR Secondary		1.1	1.2		1.15	1.2	
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						

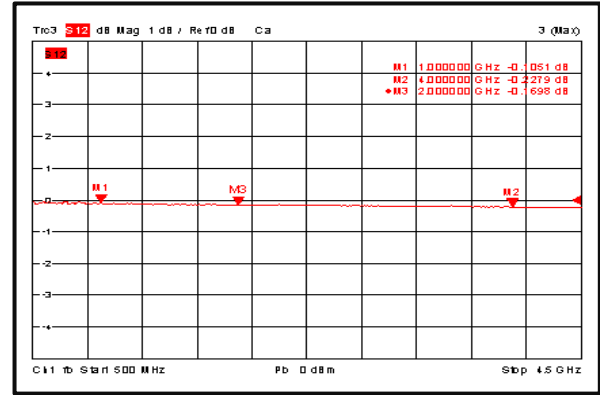


Environment specifications

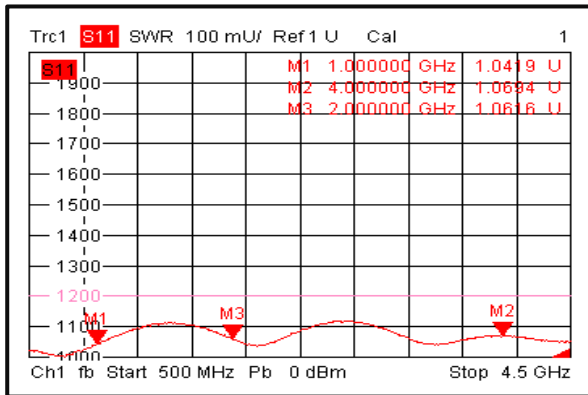
Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH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

Typical Performance Plots

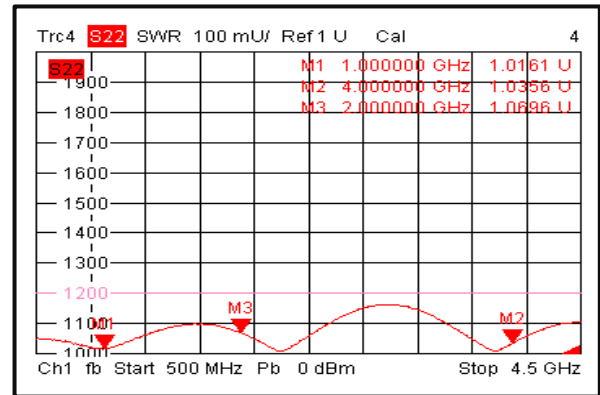
Insertion Loss



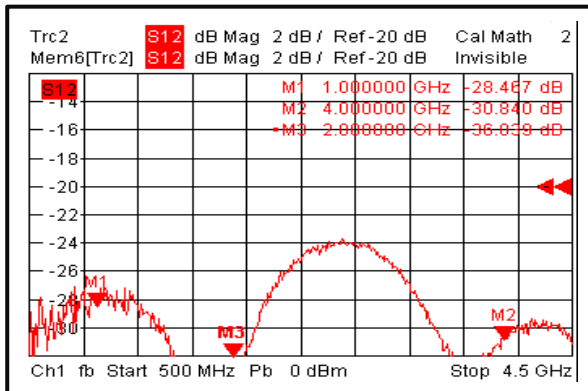
Primary VSWR



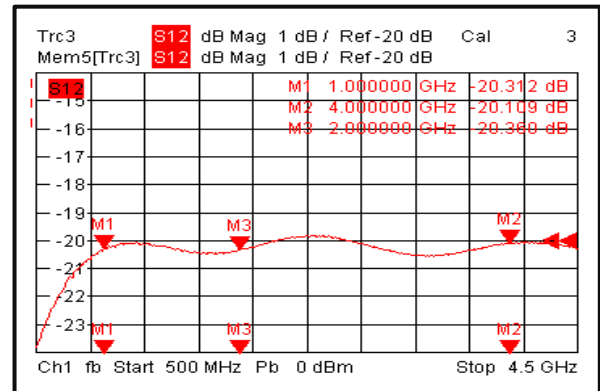
Secondary VSWR



Directivity



Nominal Coupling

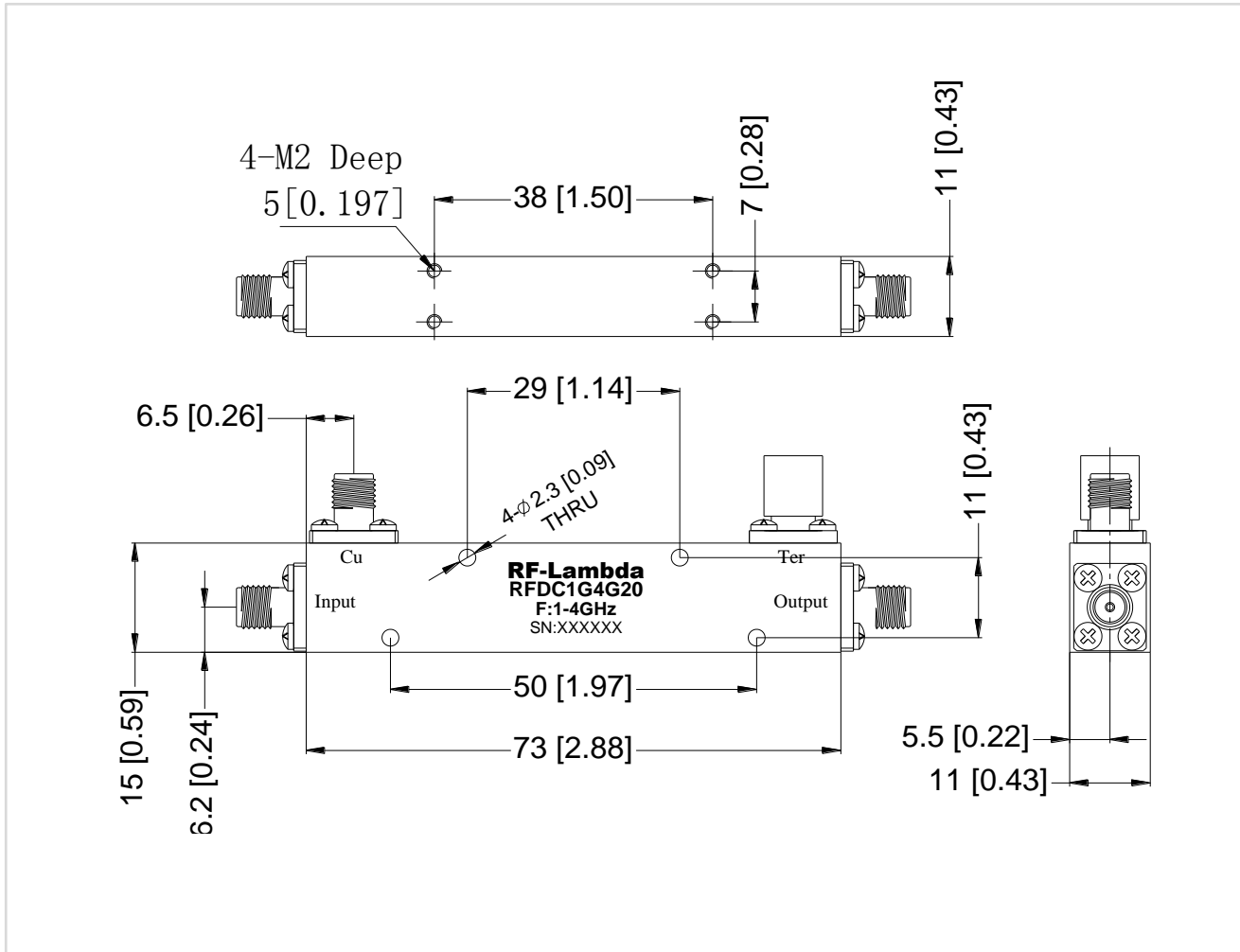




Outline Drawing:

All Dimensions in mm (inches)

Tolerance ± 0.2 (0.008)



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