



Coaxial 50W 10dB Directional Coupler 2 - 8GHz



Features

- High power handling up to 50 W
- 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

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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		9	10	11	dB
Frequency Sensitivity			± 0.7	± 1.0	dB
Directivity		20	22		dB
Insertion Loss (Excl Coupling)				0.5	dB
Insertion Loss (true)			0.7	0.9	dB
VSWR Primary			1.15	1.2	: 1
VSWR Secondary			1.15	1.2	: 1
Power Rating	Average	50			W
	Peak	500			W
Impedance		50			Ohms
Weight		1.06			ounces
Input / Output Connectors		SMA-Female			
Material		Aluminum			
Finishing		Blue Paint			



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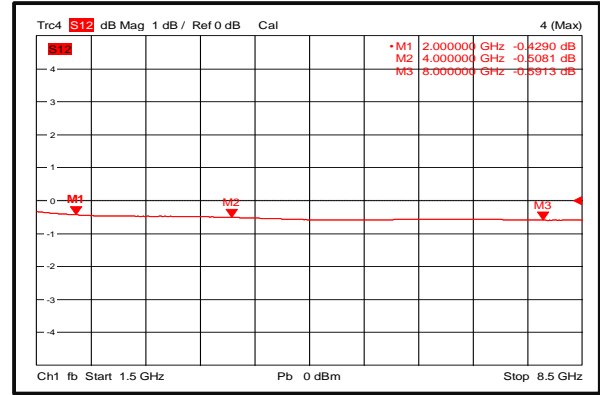
RFDC2G8G10

Environmental Specifications

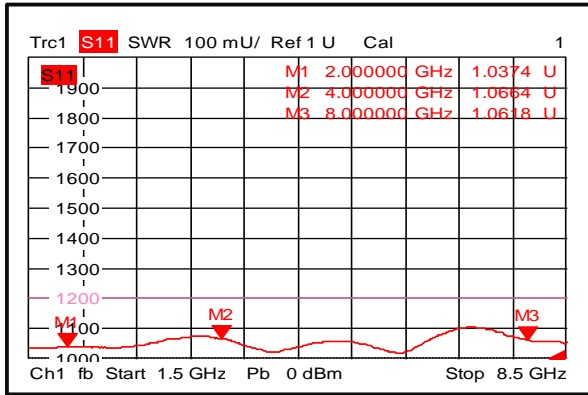
Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c,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

Typical Performance Plots

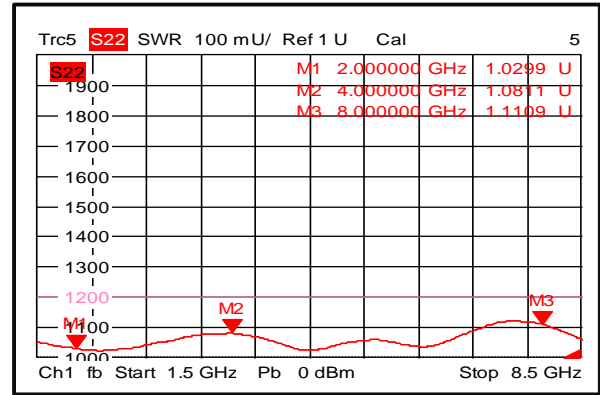
Insertion Loss



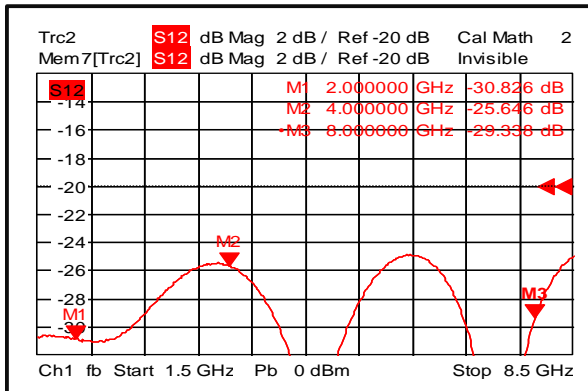
Primary VSWR



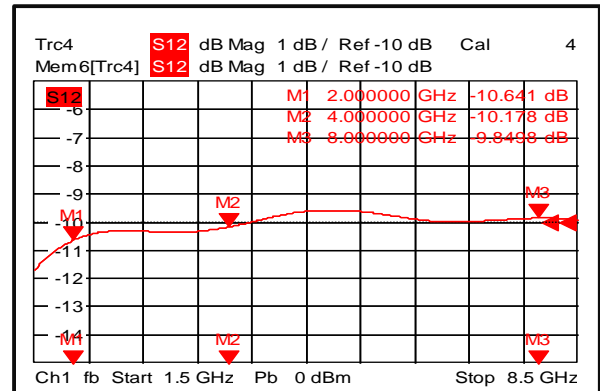
Secondary VSWR



Directivity



Nominal Coupling



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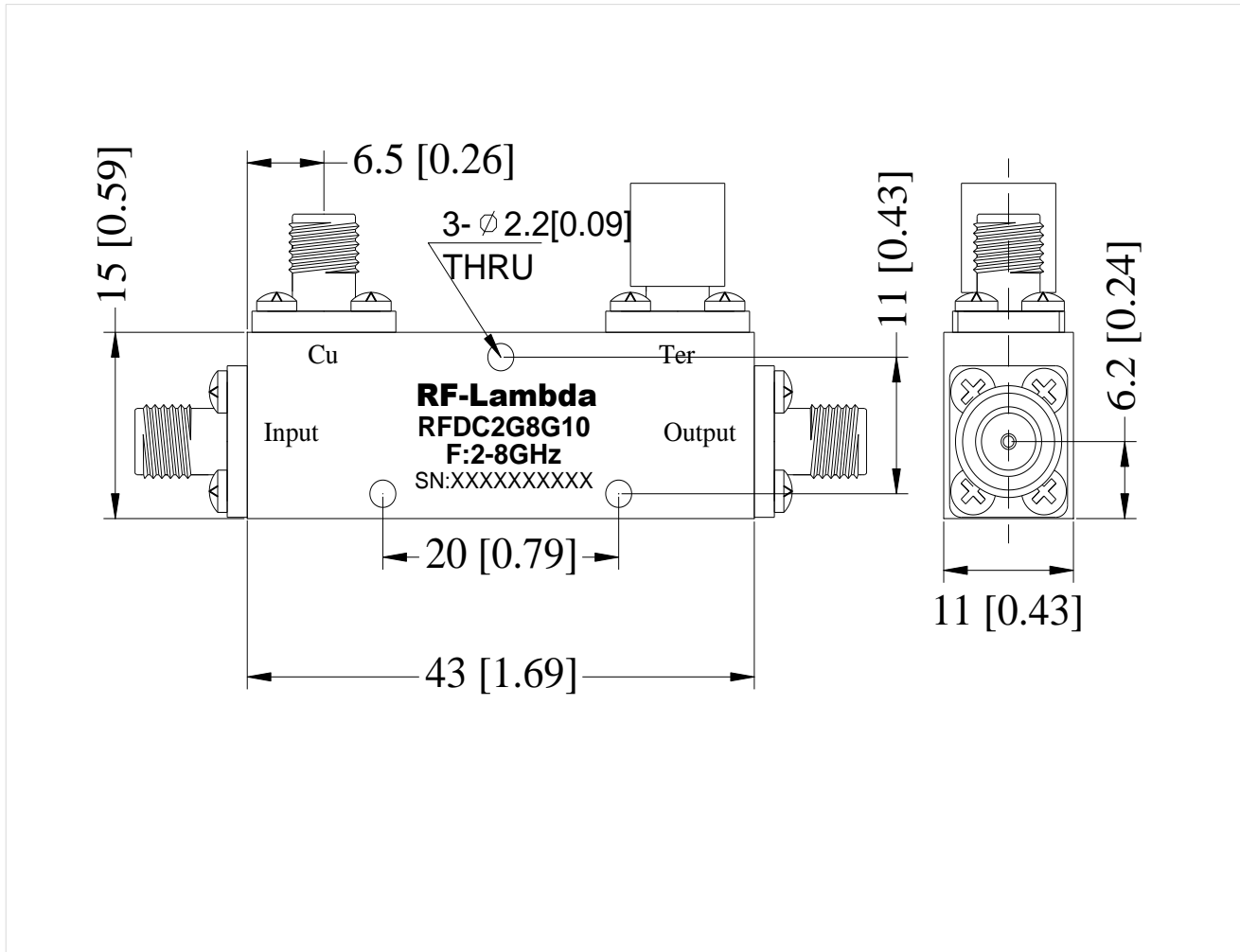
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Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.2 [0.008]



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