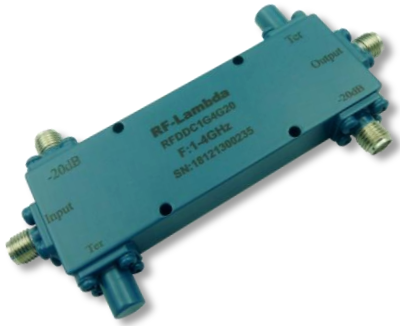




Coaxial 50W 20dB Dual Directional Coupler 1 - 4GHz



Note: The photo is for illustration purposes only. Please refer to the outline drawing.



Features

- High power handling up to 50W
- Wide band operation
- High directivity within operational band
- Low Insertion Loss
- High peak to average handling capability

Typical Applications

- Test and Measurement
- Aerospace and military applications
- LMDS multi-carrier operation

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

Parameter		Min.	Typ.	Max.	Units
Frequency Range		1		4	GHz
Nominal Coupling		19	20	21	dB
Frequency Sensitivity			± 0.7	± 1.0	dB
Directivity		18	22		dB
Insertion Loss (Excl Coupling)				0.4	dB
Insertion Loss (True)			0.3	0.5	dB
VSWR Primary			1.25	1.3	: 1
VSWR Secondary			1.25	1.3	: 1
Power Rating	Average	50			W
	Peak	1			kW
Impedance		50			Ohms
Weight		/			ounces
Input / Output Connectors		N-Female			
Material		Aluminum			
Finish		Blue Paint			

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



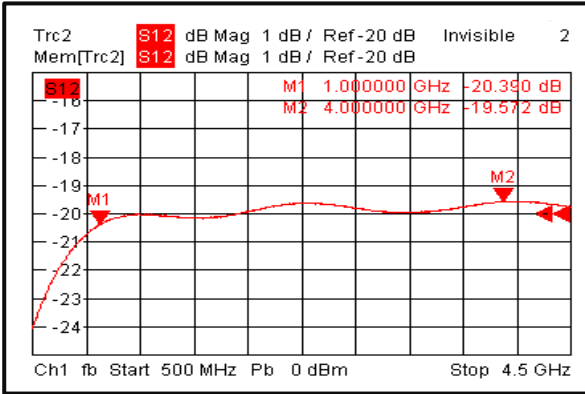
Environmental Specifications and Test Standards

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

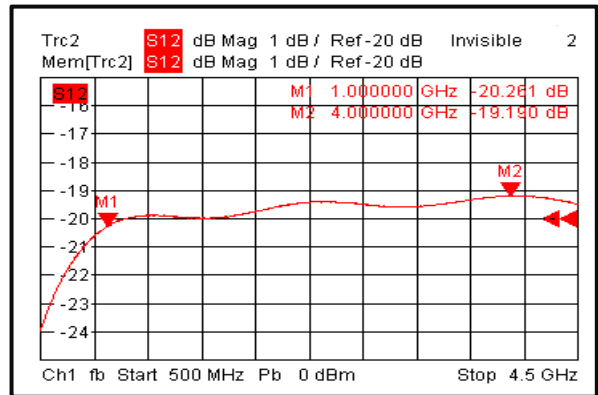


Typical Performance Plots

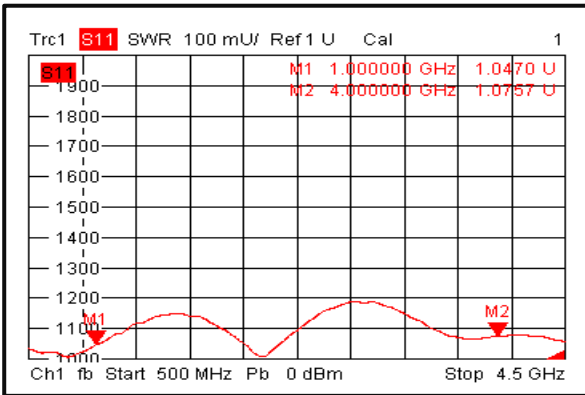
Nominal Coupling 1



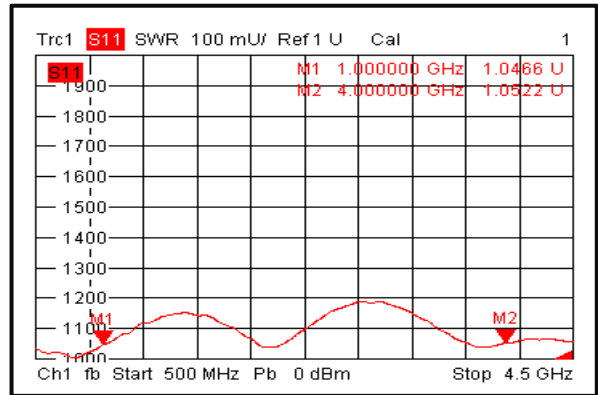
Nominal Coupling 2



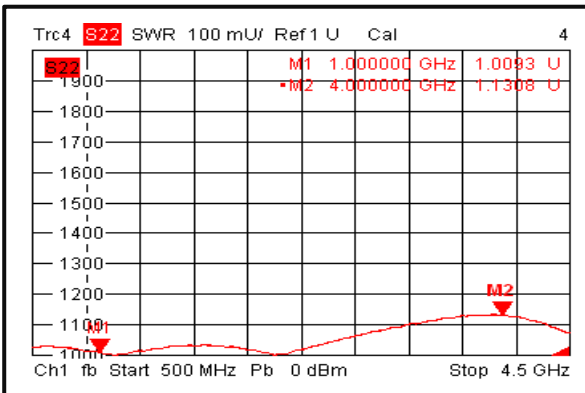
Primary VSWR 1



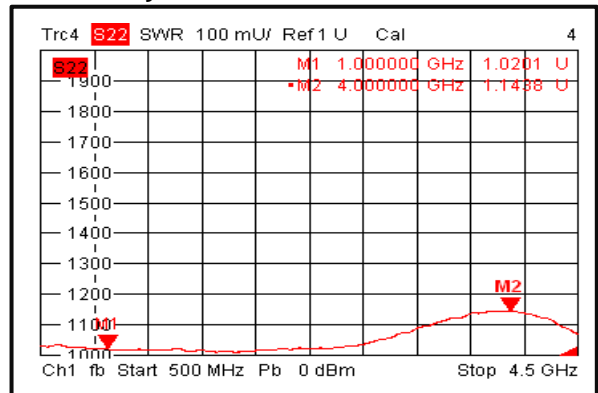
Primary VSWR 2



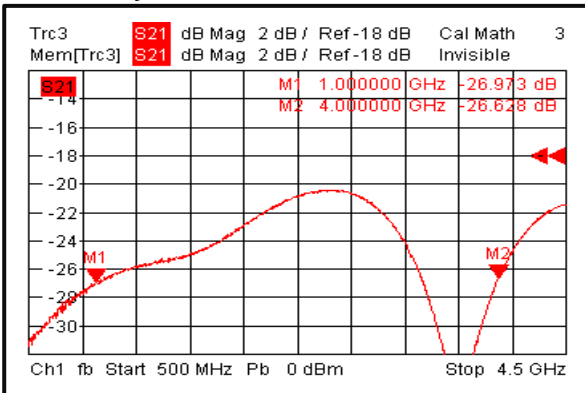
Secondary VSWR 1



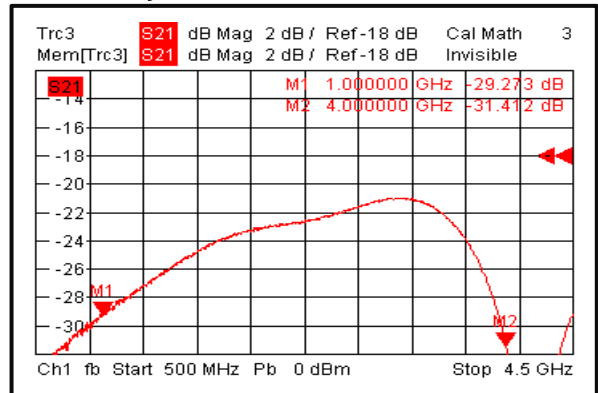
Secondary VSWR 2



Directivity 1

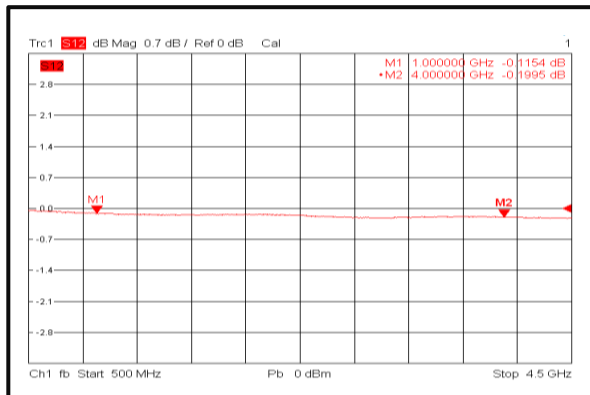


Directivity 2





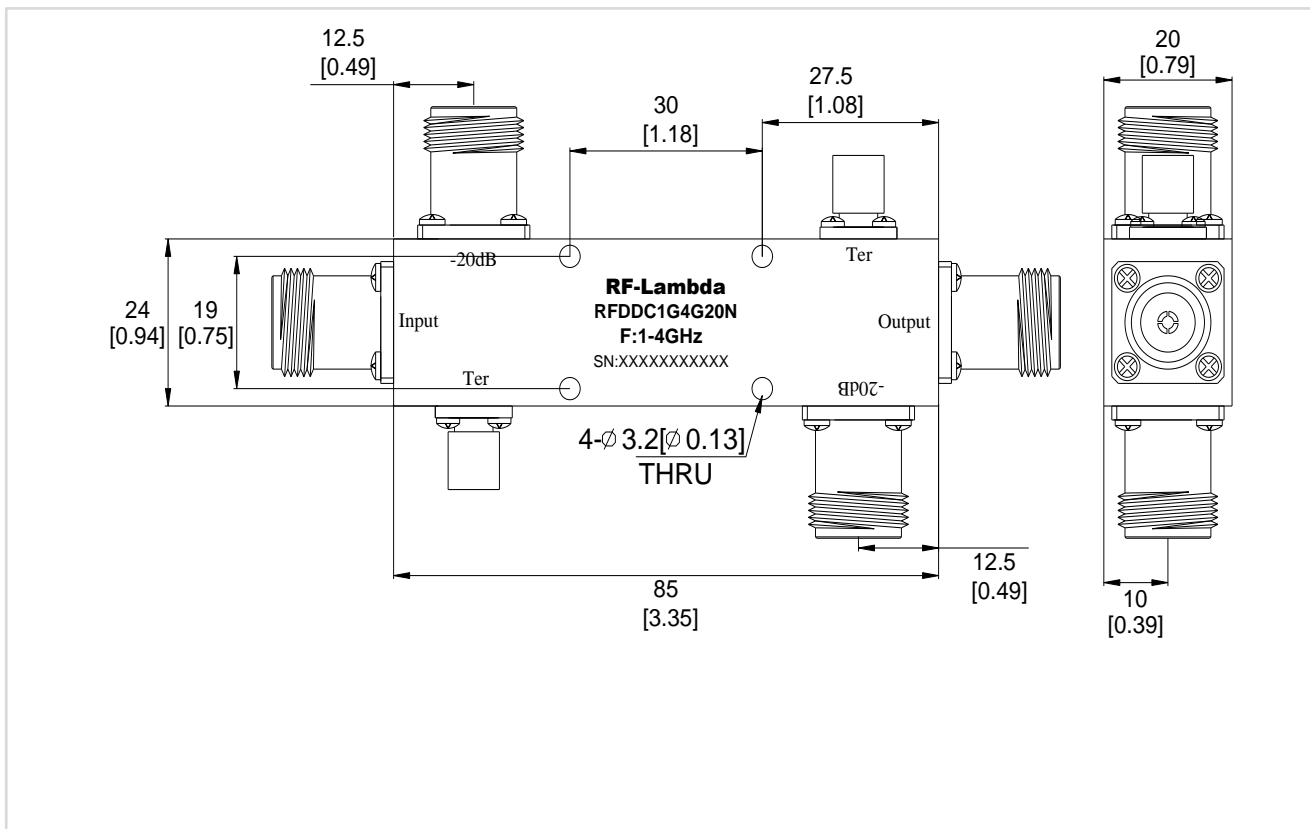
Insertion Loss



Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.3 [0.012]



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

Important Notice

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