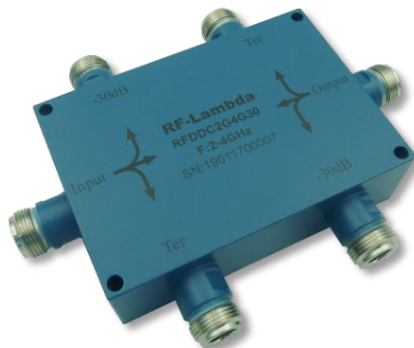


## Coaxial 500W 30dB Dual Directional Coupler 2 - 4GHz



### Features

- High power handling up to 500W
- Wide band operation
- High Directivity within operational band
- Low Insertion Loss
- High peak to average handling capability
- Stable performance over temperature

### Typical Applications

- Aerospace and military applications
- Test and Measurement
- Wireless Infrastructure

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

Parameter		Min.	Typ.	Max.	Units
Frequency Range		2		4	GHz
Nominal Coupling		29.2	30	30.8	dB
Frequency Sensitivity			$\pm 0.3$	$\pm 0.5$	dB
Directivity		18	22		dB
Insertion Loss (Excl. Coupling)				0.3	dB
Insertion Loss (true)			0.15	0.3	dB
VSWR Primary			1.15	1.2	:1
VSWR Secondary			1.15	1.2	:1
Power Rating	Average	500			W
	Peak	3 (10% Duty Cycle, 10us Pulse Width) 1.7 (20% Duty Cycle, 20us Pulse Width)			KW
Impedance		50			Ohms
Weight		19 Max.			ounces
Input / Output Connectors		N-Female			
Material		Aluminum			
Finish		Blue Paint			

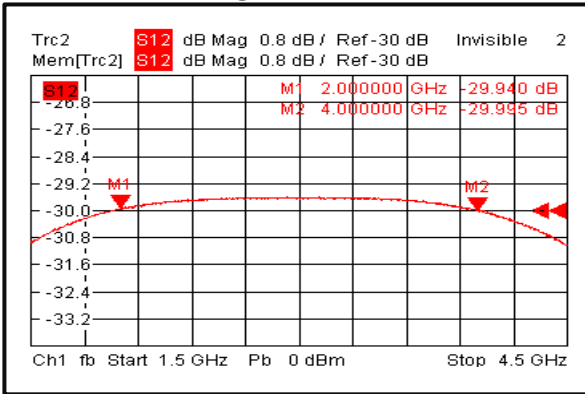
**Coaxial 500W 30dB Dual Directional Coupler 2 - 4GHz**

**Environmental Specifications and Test Standards**

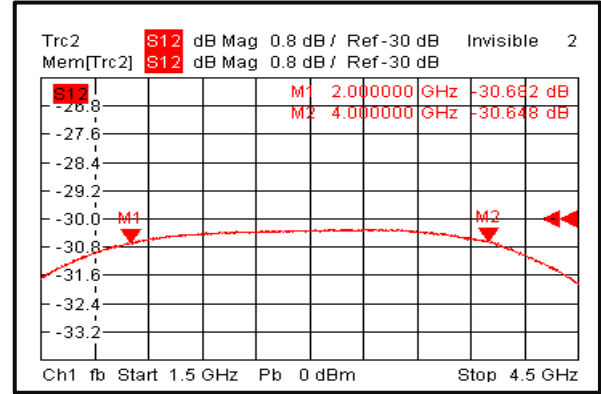
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
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 (For Hermetically Sealed Units)

*Typical Performance Plots*

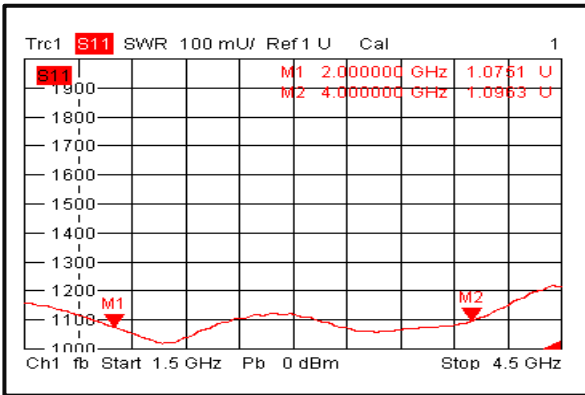
**Nominal Coupling 1**



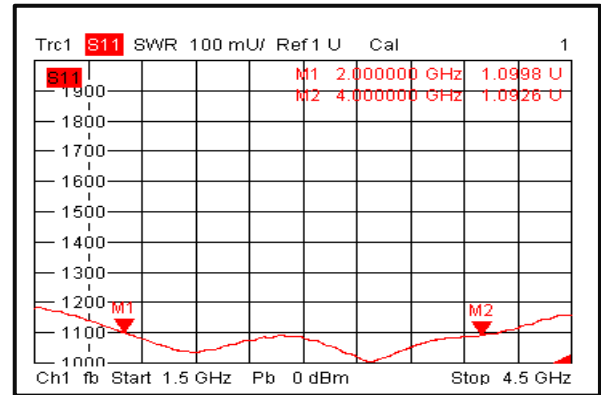
**Nominal Coupling 2**



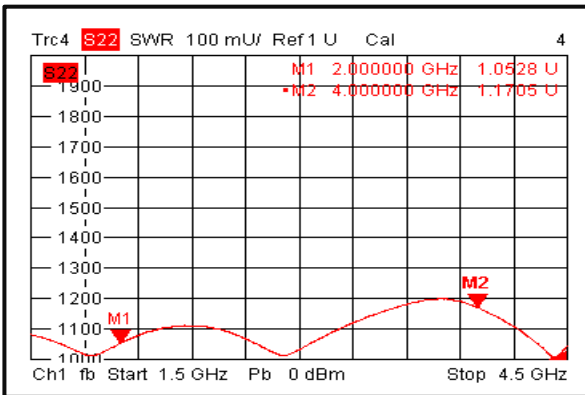
**Primary VSWR 1**



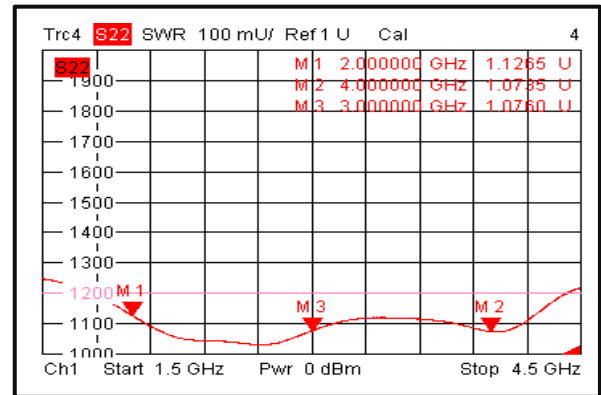
**Primary VSWR 2**



**Secondary VSWR 1**

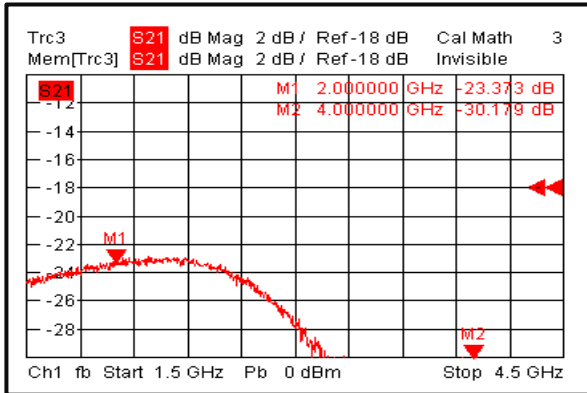


**Secondary VSWR 2**

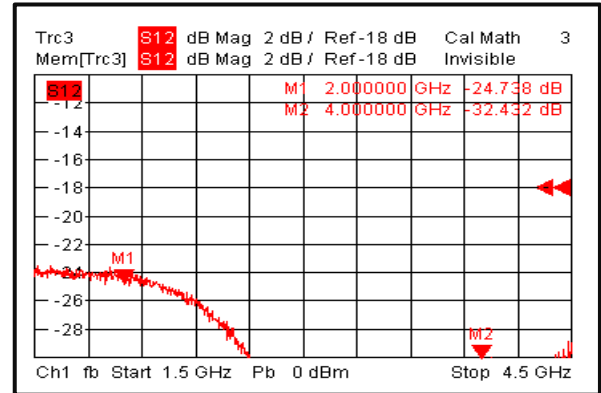


**Coaxial 500W/30dB Dual Directional Coupler 2 - 4GHz**

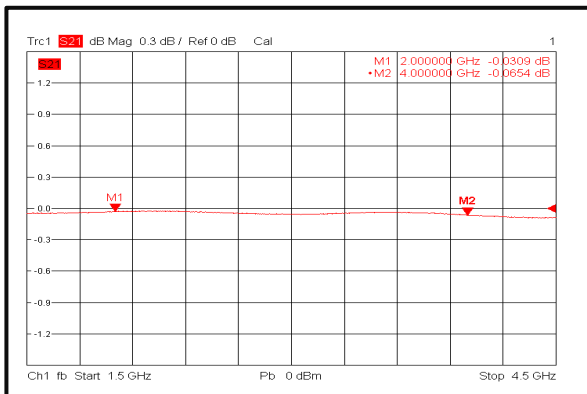
**Directivity 1**



**Directivity 2**



**Insertion Loss**

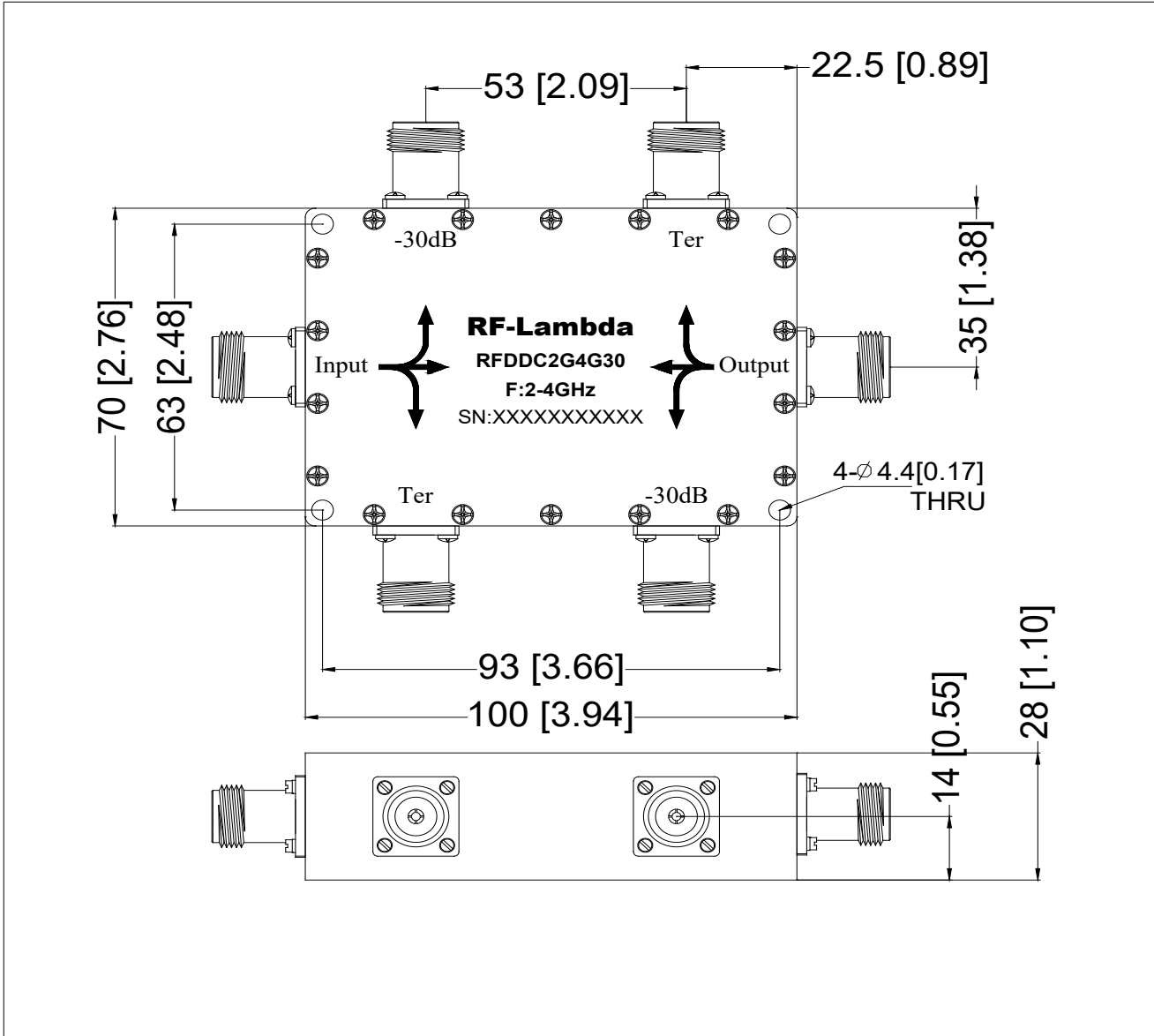


**Outline Drawing:**

All Dimensions in mm [inches]

Outline Tolerances  $\pm 0.5$  [0.02]

Mounting Hole Tolerances  $\pm 0.2$  [0.008]



**Coaxial 500W 30dB Dual Directional Coupler 2 - 4GHz**

**Important Notice**

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