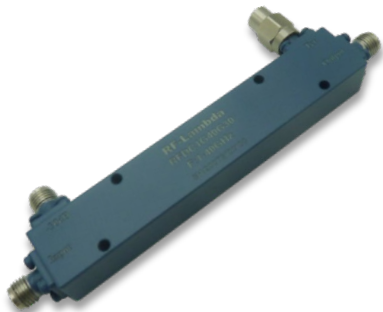


## Coaxial 30W 30dB Directional Coupler 1 - 40GHz



### Features

- High power handling up to 30 W
- Ultra Wide band operation
- High directivity within operational band
- Low Insertion Loss

### Typical Applications

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

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

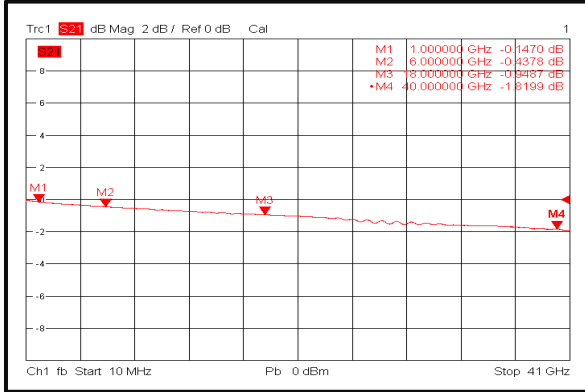
Parameter		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		1		6	6		18	18		40	GHz
Nominal Coupling		29	30	31.5	29	30	31.5	29	30	31.5	dB
Frequency Sensitivity			$\pm 0.8$	$\pm 1.0$		$\pm 0.6$	$\pm 1.0$		$\pm 0.6$	$\pm 1.0$	dB
Directivity		15	18		12	14		10	12		dB
Insertion Loss (Excl. Coupling)				1.0			1.2			2.0	dB
Insertion Loss (True)			0.6	1.0		0.9	1.2		1.6	2.0	dB
VSWR Primary			1.25	1.3		1.3	1.5		1.4	1.6	: 1
VSWR Secondary			1.25	1.3		1.3	1.5		1.4	1.6	: 1
Power Rating	Average	30									W
	Peak	500									W
Impedance		50									Ohms
Weight		2.0 Max.									Ounces
Input / Output Connectors		2.92mm - Female									
Material		Aluminum									
Finish		Blue Paint									

**Environmental Specifications and Test Standards**

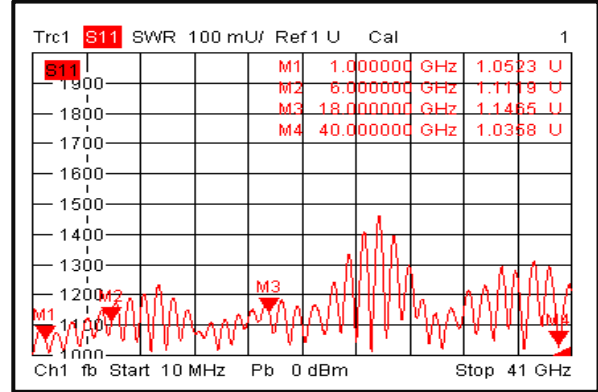
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours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

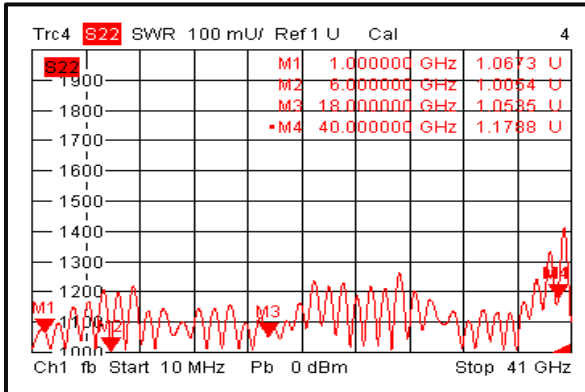
Insertion Loss



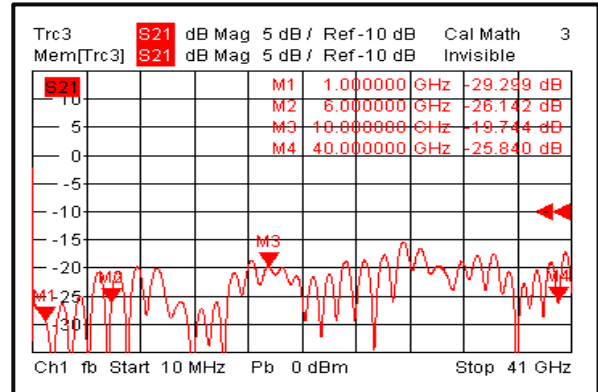
Primary VSWR



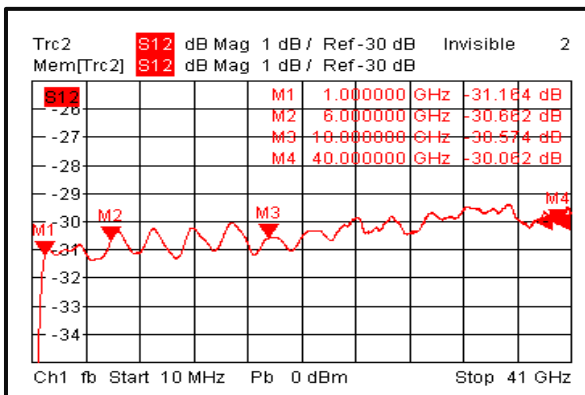
Secondary VSWR



Directivity



Nominal Coupling

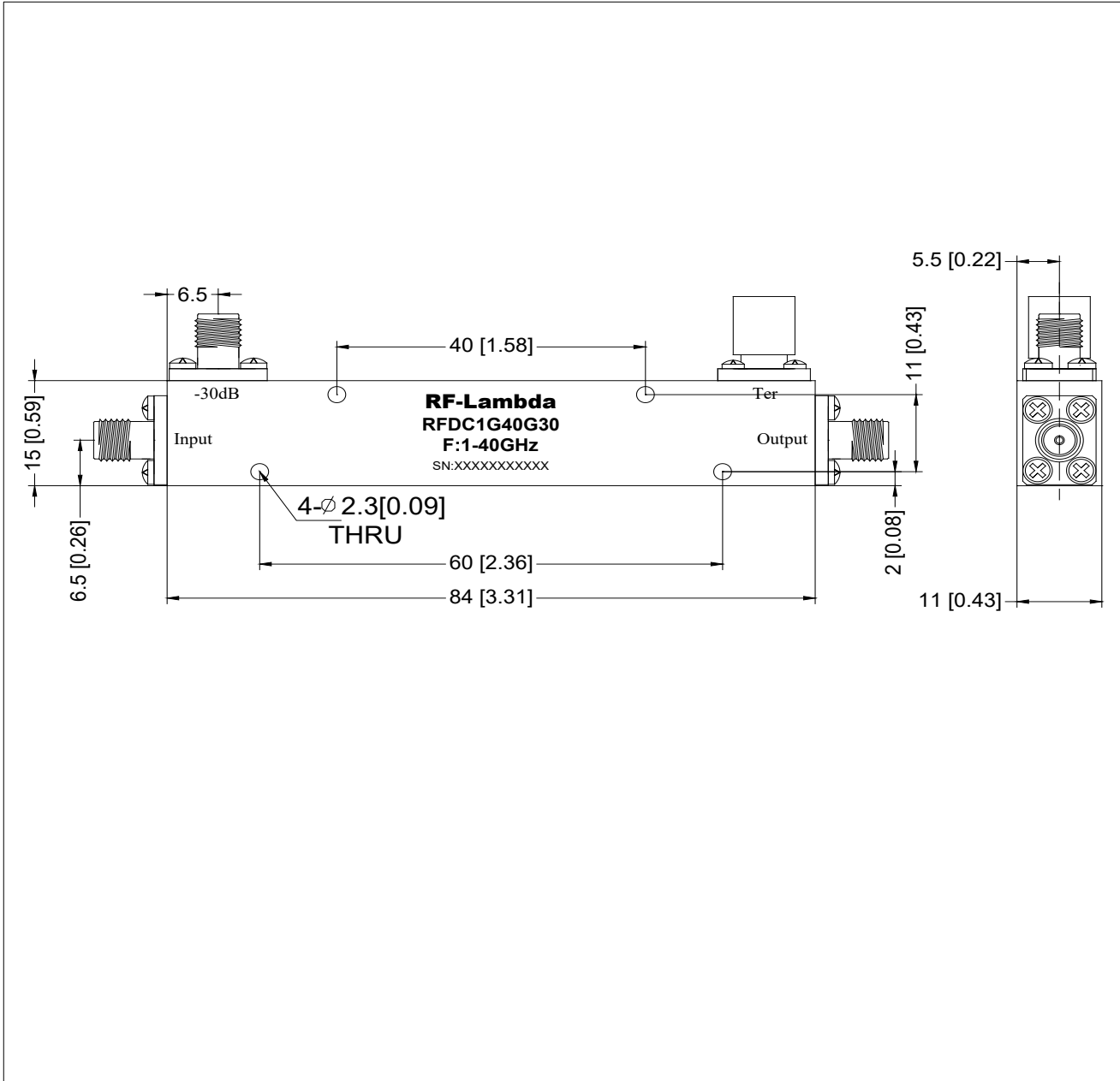


**Outline Drawing:**

All Dimensions in mm [inches]

Outline Tolerances  $\pm 0.5$  [0.02]

Mounting Hole Tolerances  $\pm 0.2$  [0.008]



**Coaxial 30W 30dB Directional Coupler 1 - 40 GHz**

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