

## Coaxial 30W 10dB Directional Coupler 8-40 GHz



### Features

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

### Typical Applications

- Aerospace and Military
- Wireless Infrastructure
- Test and Measurement

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

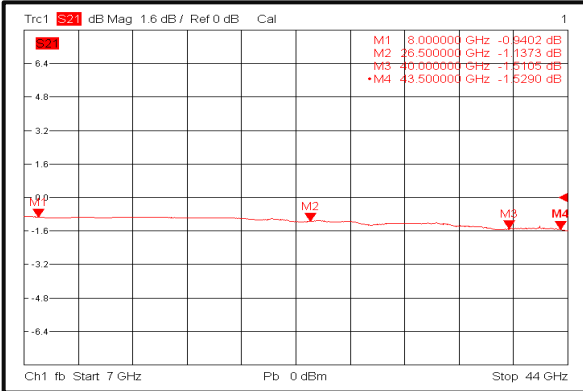
Parameters		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		8		26.5	26.5		40	40		43.5	GHz
Nominal Coupling		9	10	11	9	10	11		10		dB
Frequency Sensitivity			$\pm 0.3$	$\pm 0.7$		$\pm 0.3$	$\pm 0.6$		$\pm 0.3$		dB
Directivity		12	15		10	12			10		dB
Insertion Loss (Excl. Coupling)				1.1			1.1		1.2		dB
Insertion Loss (True)			1.5	1.6		1.5	1.6		1.6		dB
VSWR Primary			1.4	1.6		1.4	1.6		1.5		:1
VSWR Secondary			1.5	1.6		1.5	1.6		1.5		:1
Power Rating	Average	30									W
	Peak	500									W
Impedance		50									Ohms
Weight		1 Max.									ounces
Input / Output Connectors		2.92mm-Female (Stainless Steel)									
Material		Aluminum									
Finish		Blue Paint									

**Environmental Specifications and Test Standards**

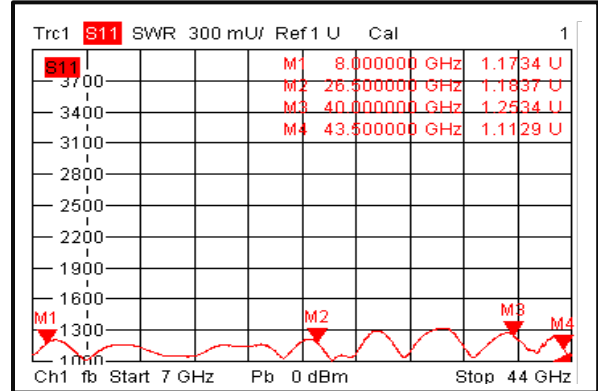
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours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

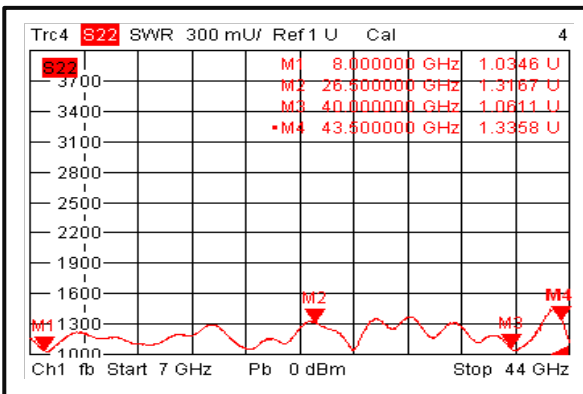
Insertion Loss



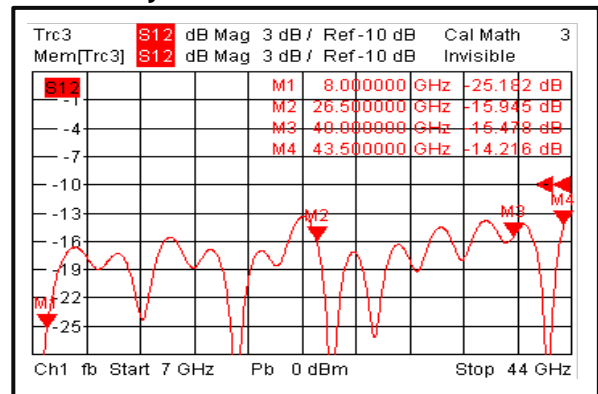
Primary VSWR



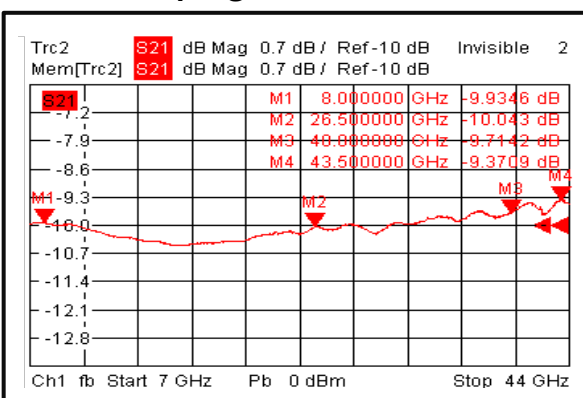
Secondary VSWR



Directivity



Nominal Coupling

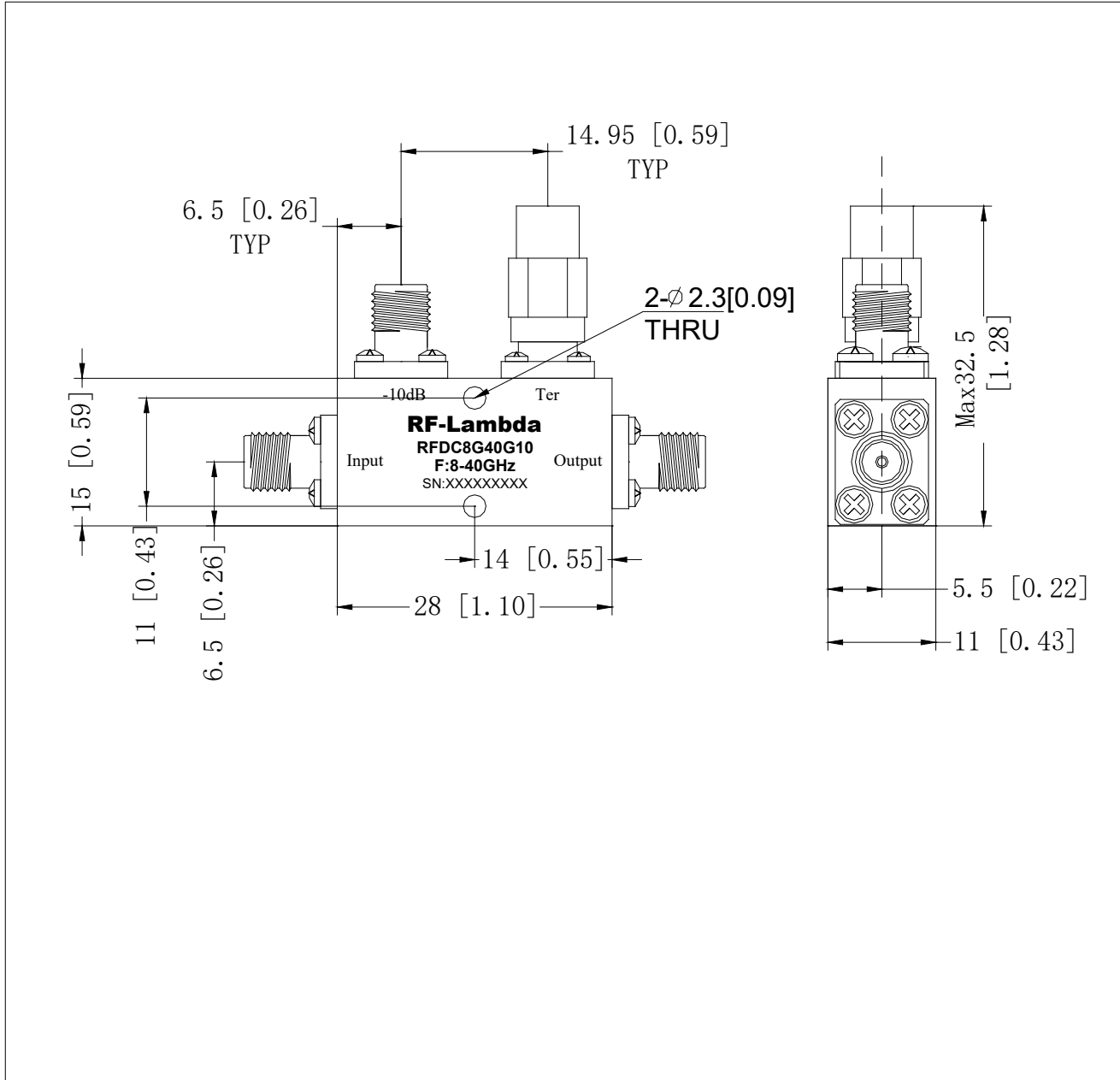


**Outline Drawing:**

All Dimensions in mm [inches]

Outline Tolerances  $\pm 0.5$  [0.02]

Mounting Hole Tolerances  $\pm 0.2$  [0.008]



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