



Coaxial 30W 30dB 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		29	30	31	29	30	31		30		dB
Frequency Sensitivity			± 0.5	± 0.7		± 0.4	± 0.6		± 0.3		dB
Directivity		12	15		10	12			10		dB
Insertion Loss(Excl Coupling)				0.8			1.0		1.0		dB
Insertion Loss (True)			0.6	0.8		0.9	1.0		1.0		dB
VSWR Primary			1.3	1.5		1.4	1.6		1.5		: 1
VSWR Secondary			1.3	1.5		1.4	1.6		1.5		: 1
Power Rating	Average	30									W
	Peak	500									W
Impedance		50									Ohms
Weight		0.9 Max.									ounces
Input / Output Connectors		2.92mm-Female (Stainless Steel)									
Material		Aluminum									
Finish		Blue Paint									

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Environmental Specifications and Test Standards

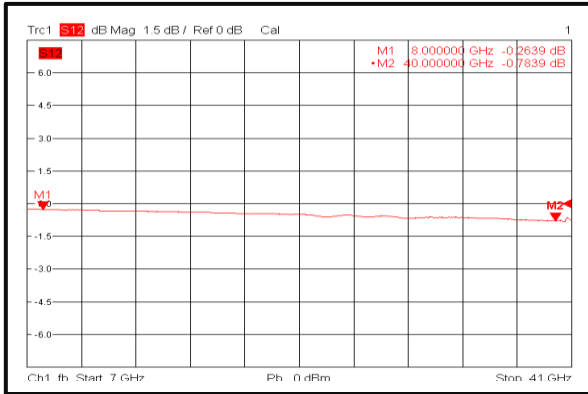
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-40°C~+85°C
Storage Temperature		-50°C~+105°C
Thermal Shock		1 Hour@ -40°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 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	MIL-STD-883 (For Hermetically Sealed Units)

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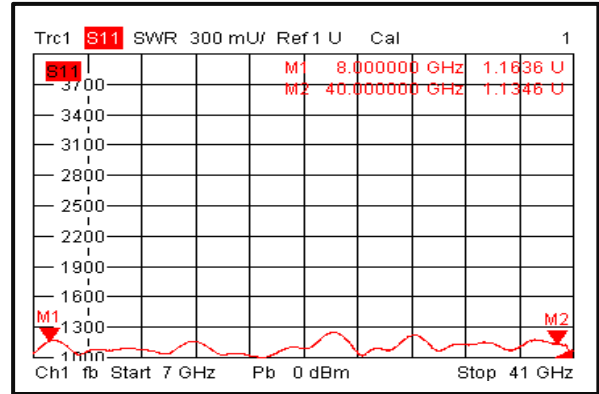


Typical Performance Plots

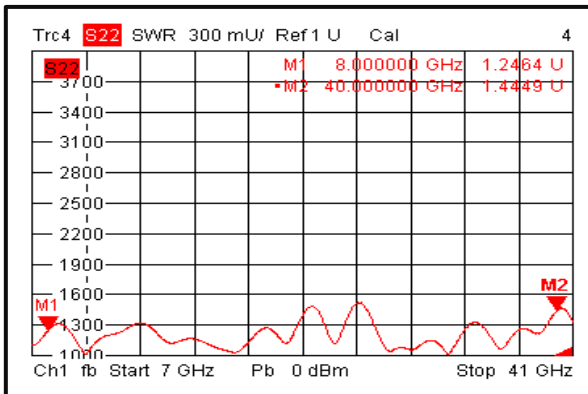
Insertion Loss



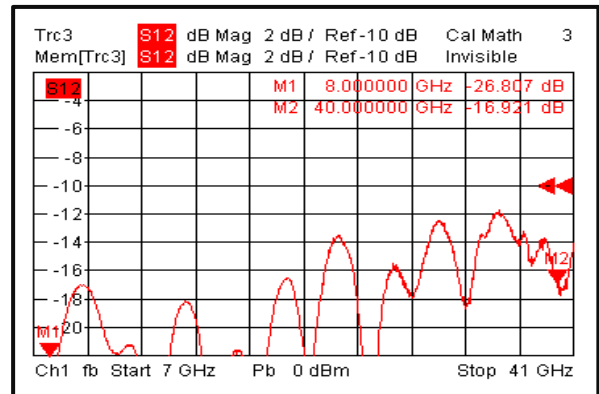
Primary VSWR



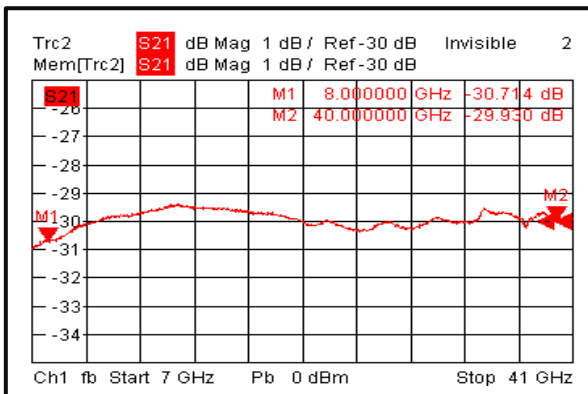
Secondary VSWR



Directivity



Nominal Coupling



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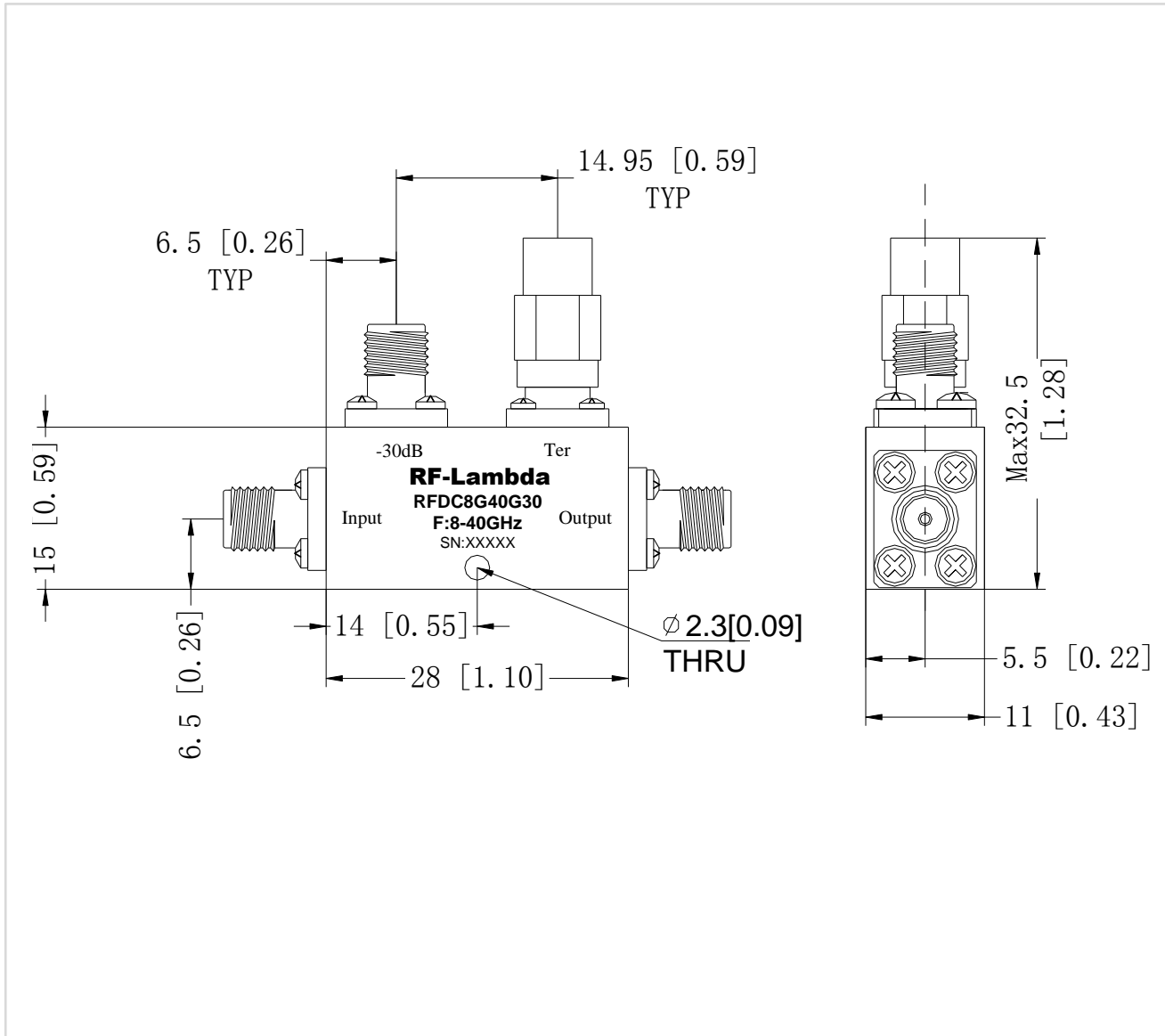


Outline Drawing:

All Dimensions in mm [inches]

Outline Tolerances ± 0.5 (0.02)

Mounting Holes Tolerances ± 0.2 (0.008)



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