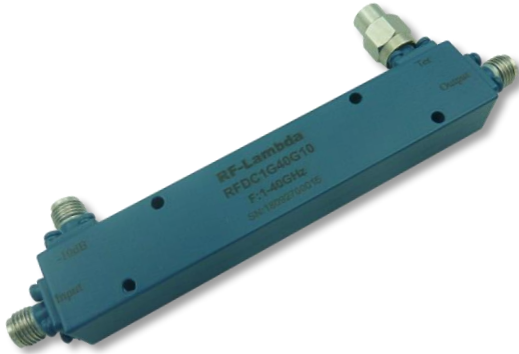




Coaxial 20W 10dB Directional Coupler 1 - 40GHz



Features

- High power handling up to 20W
- Ultra Wide band operation
- Functional Bandwidth : 0.5GHz to 43.5 GHz
- 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.	Min.	Typ.	Max.	Units
Frequency Range	1		18	18		40	GHz
Nominal Coupling	8.5	10	11.5	8.5	10	11.5	dB
Frequency Sensitivity		± 0.7	± 1.0		± 0.7	± 1.0	dB
Directivity	12	14		10	12		dB
Insertion Loss (Excl Coupling)			1.5			2.5	dB
Insertion Loss (True)		1.7	2.0		2.5	3.0	dB
VSWR Primary		1.4	1.5		1.6	1.7	:1
VSWR Secondary		1.4	1.5		1.6	1.7	:1
Power Rating	Average	20					W
	Peak	300					W
Impedance	50					Ohms	
Weight	1.76					Ounces	
Input / Output Connectors	2.92mm - Female						
Material	Aluminum						
Finish	Blue Paint						

Coaxial 20W 10dB Directional Coupler 1 - 40GHz



Environmental Specifications and Test Standards

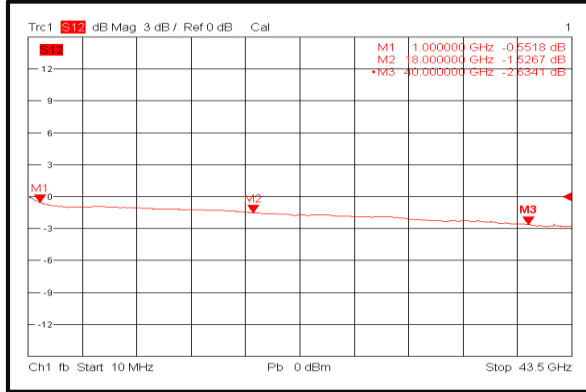
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 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	MIL-STD-883 (For Hermetically Sealed Units)

COAXIAL 20W 10dB DIRECTIONAL COUPLER 1 - 40GHz

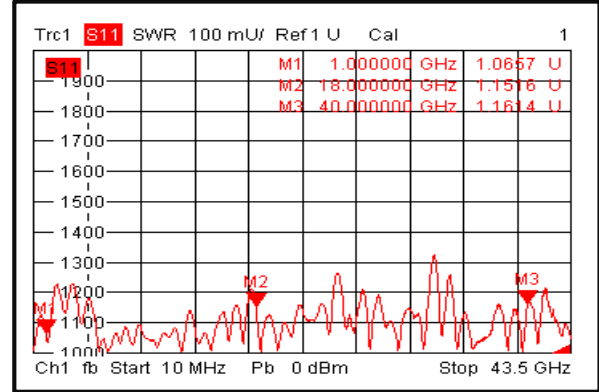


Typical Performance Plots

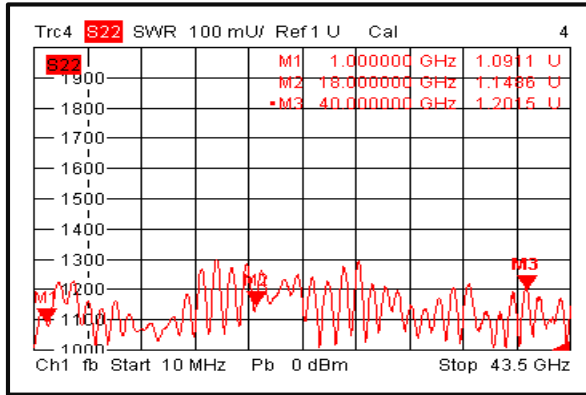
Insertion Loss



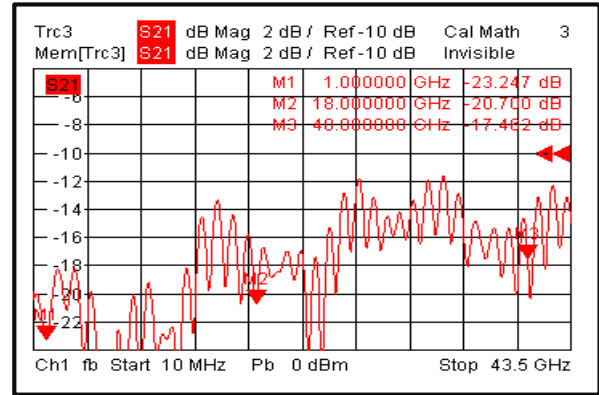
Primary VSWR



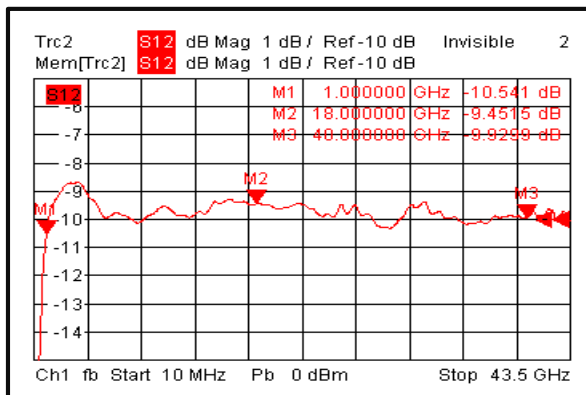
Secondary VSWR



Directivity



Nominal Coupling

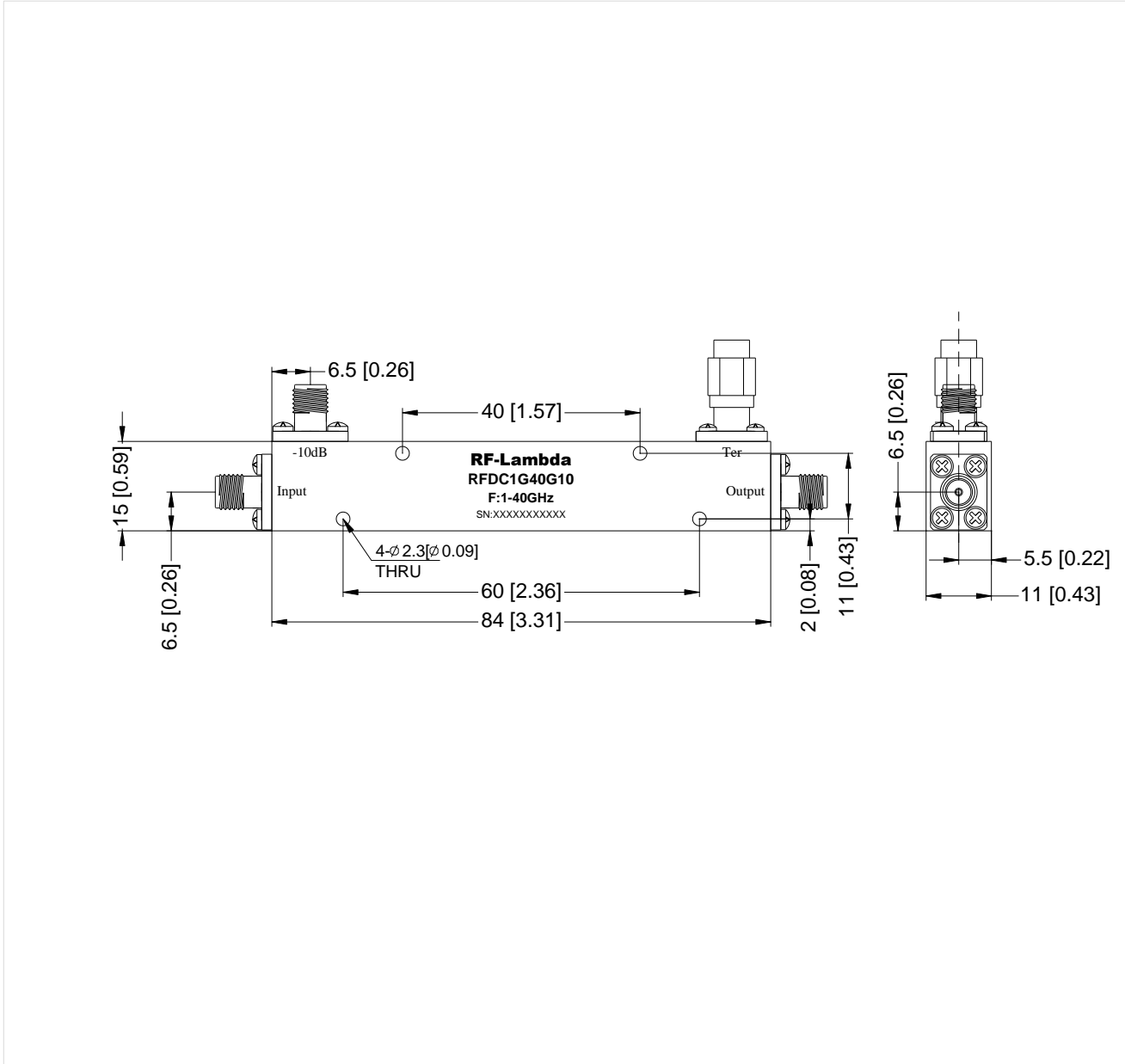




Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.25 [0.01]



COAXIAL 20W 10dB DIRECTIONAL COUPLER 1 - 40GHz

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