



Coaxial 30W 20dB Directional Coupler 1 - 40GHz



Features

- High power handling up to 30W
- Ultra Wide band operation
- Functional Bandwidth : 0.5GHz to 43.5 GHz
- High isolation within operational band
- Low Insertion Loss
- High peak to average handling capability

Typical Applications

- Stable performance over temperature
- Aerospace and military applications
- LMDS multi-carrier operation

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

Parameters		Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		1		18	18		40	GHz
Nominal Coupling		19	20	21.5	19	20	21.5	dB
Frequency Sensitivity			± 0.7	± 1.0		± 0.7	± 1.0	dB
Directivity		12	14		10	12		dB
Insertion Loss (Excl Coupling)				1.2			2.0	dB
Insertion Loss (true)			1.2	1.5		2.0	2.2	dB
VSWR Primary			1.3	1.5		1.4	1.6	: 1
VSWR Secondary			1.3	1.5		1.4	1.6	: 1
Power Rating	Average	30						W
	Peak	500						W
Impedance		50						Ohms
Weight		2.12						Ounces
Input / Output Connectors		2.92 - Female						
Material		Aluminum						
Finishing		Blue Paint						

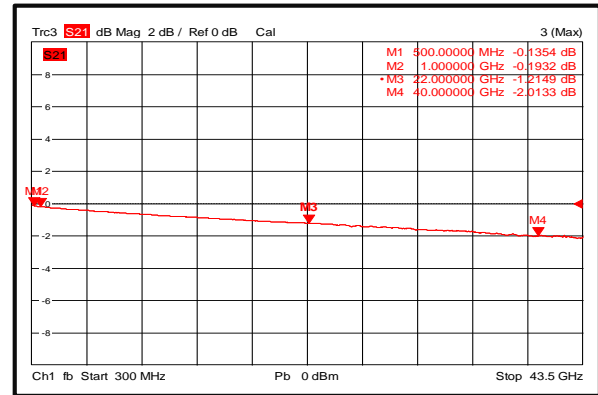


Environmental Specifications

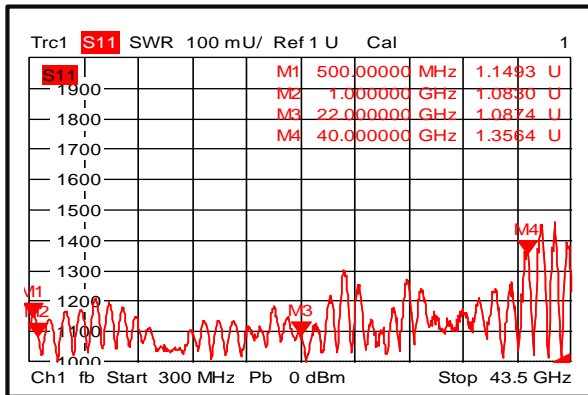
Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Uncontrolled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40 deg c
Shock	20G for 11msec half sine wave, 3 axis both directions

Typical Performance Plots

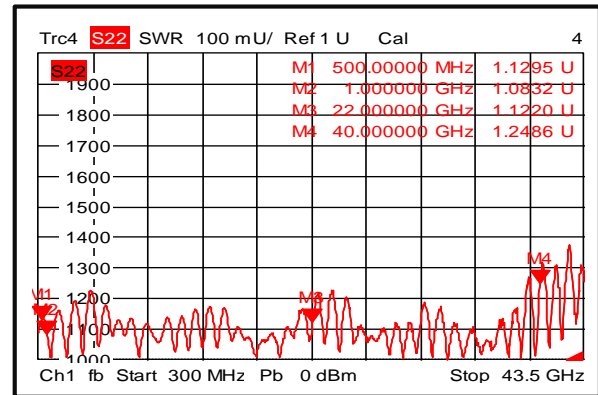
Insertion Loss



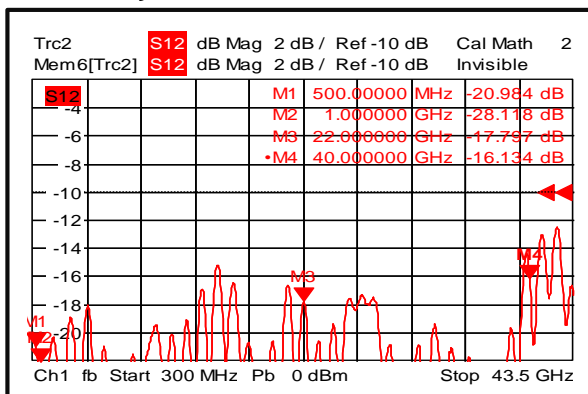
Primary VSWR



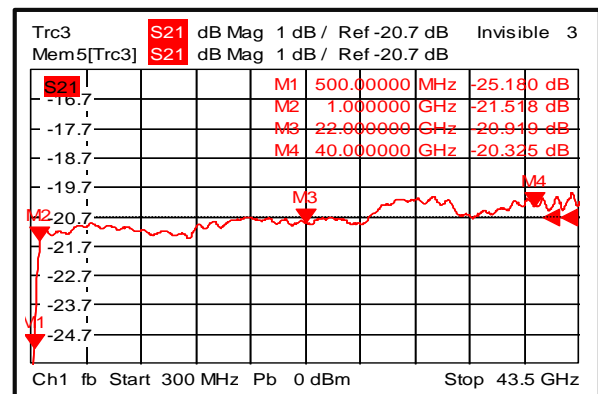
Secondary VSWR



Directivity



Nominal Coupling



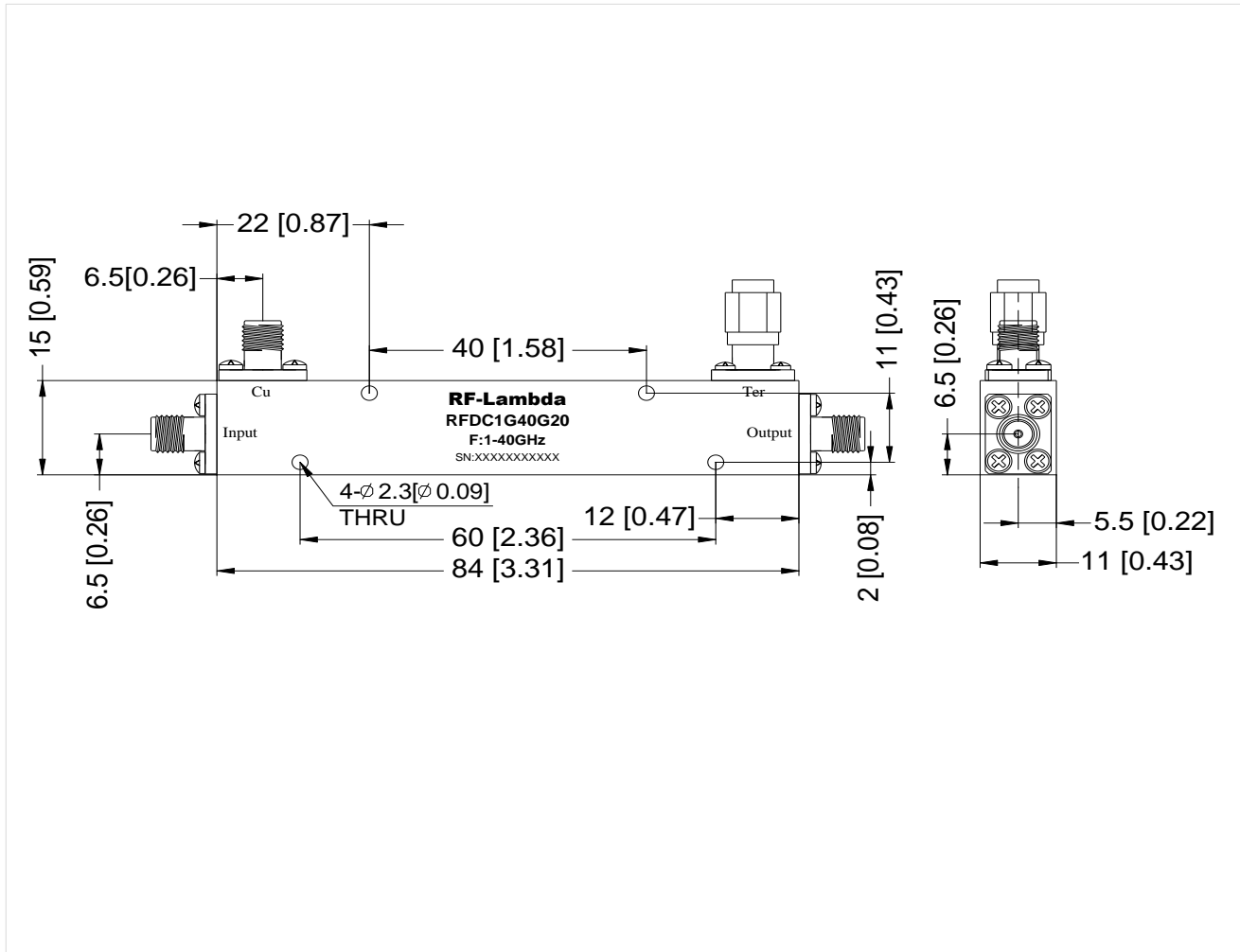
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Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.2 [0.008]



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