



## 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 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		8.5	10	11.5	8.5	10	11.5	dB
Frequency Sensitivity			$\pm 0.7$	$\pm 1.0$		$\pm 0.7$	$\pm 1.0$	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						
Finishing		Blue Paint						

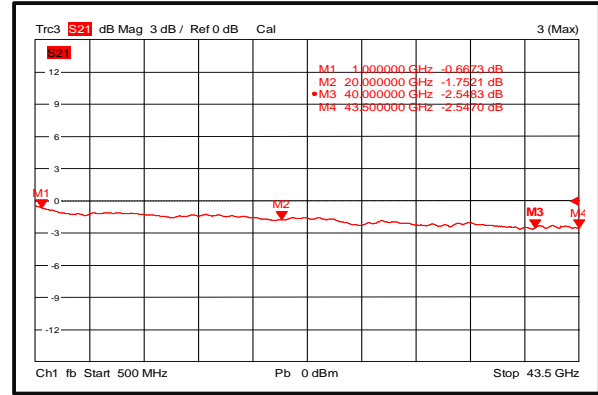


**Environmental Specifications**

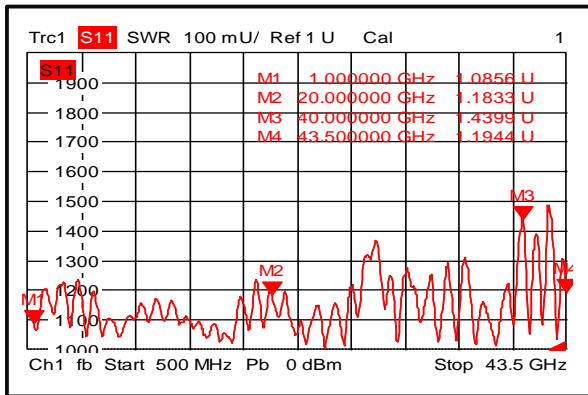
Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c,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

**Typical Performance Plots**

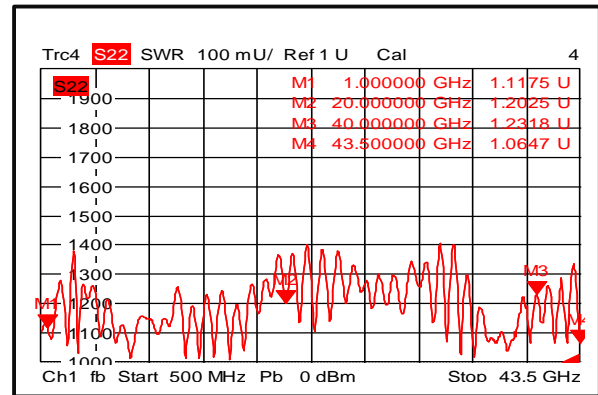
**Insertion Loss**



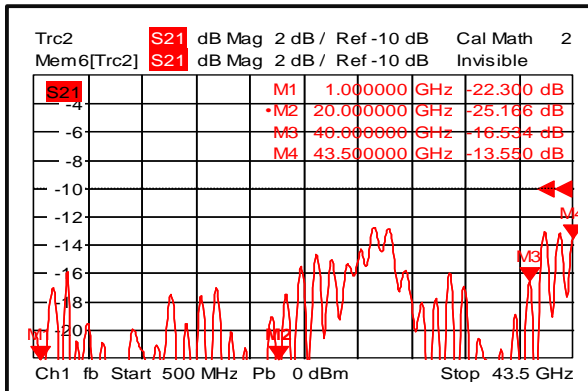
**Primary VSWR**



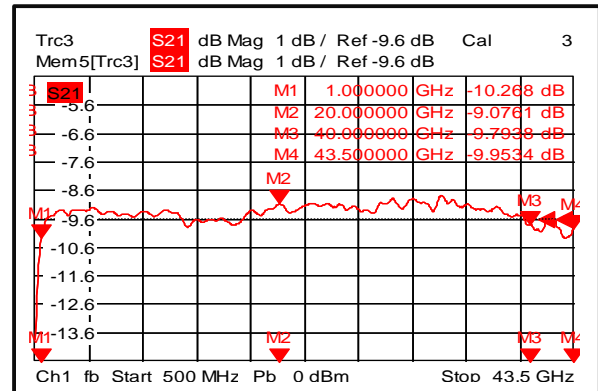
**Secondary VSWR**



**Directivity**



**Nominal Coupling**

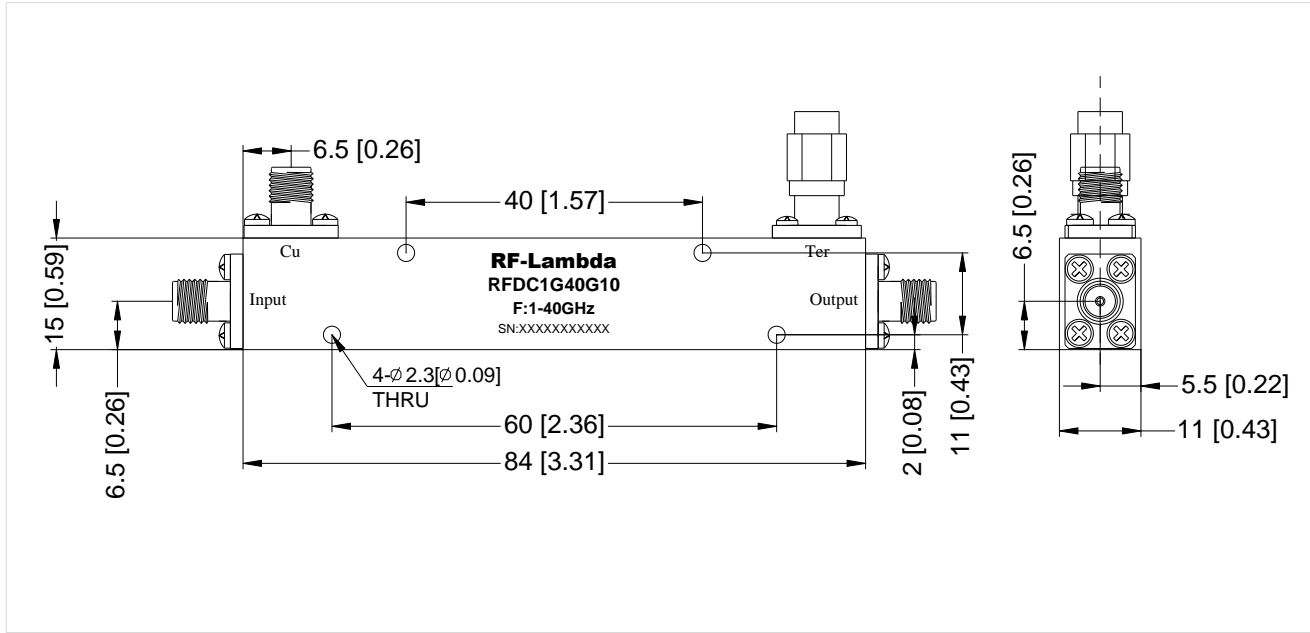




**Outline Drawing:**

All Dimensions in mm [inches]

Tolerance  $\pm 0.25$  [0.01]



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