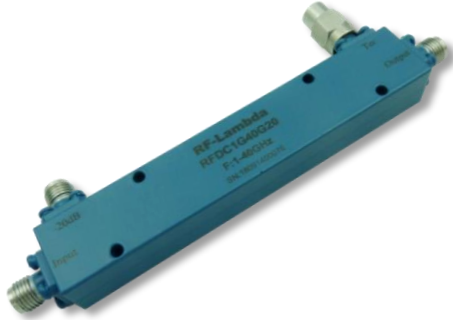




### Coaxial 30W 20dB Directional Coupler 1 - 40GHz



#### Features

- High power handling up to 30W
- Functional Bandwidth : 0.5GHz to 43.5 GHz
- High directivity within operational band
- Low Insertion Loss
- Stable performance over temperature

#### Typical Applications

- Aerospace and military applications
- Test and Measurement
- Wireless Infrastructure

#### 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			$\pm 0.7$	$\pm 1.0$		$\pm 0.7$	$\pm 1.0$	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		1.76						Ounces
Input / Output Connectors		2.92 - Female						
Material		Aluminum						
Finish		Blue Paint						

Coaxial 30W 20dB Directional Coupler 1 - 40GHz



**Environmental Specifications and Test Standards**

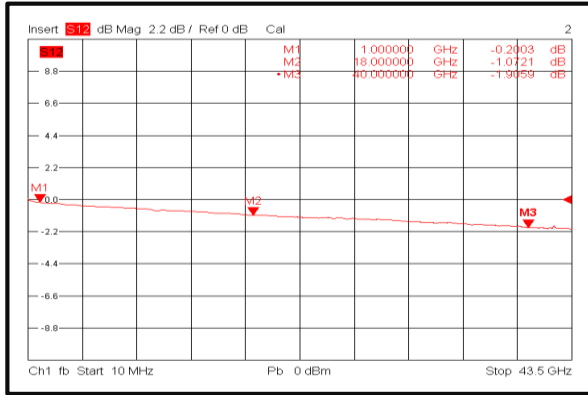
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 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 30W 20dB Directional Coupler 1 - 40GHz**

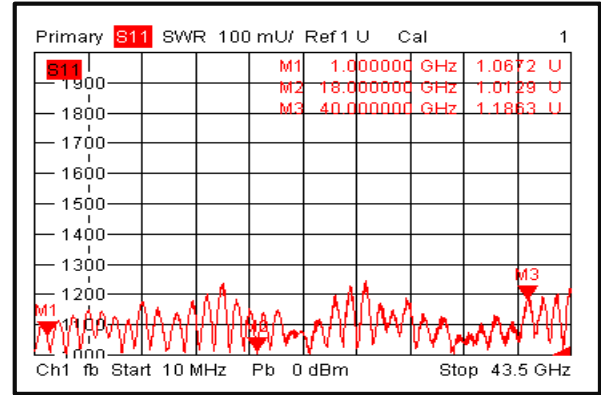


Typical Performance Plots

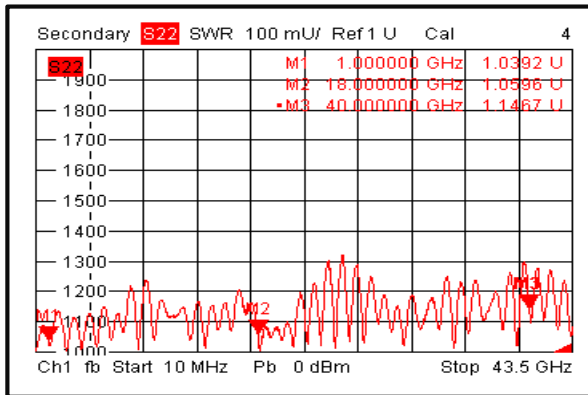
Insertion Loss



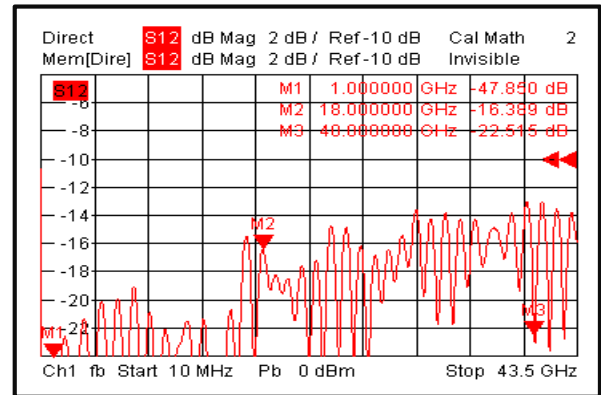
Primary VSWR



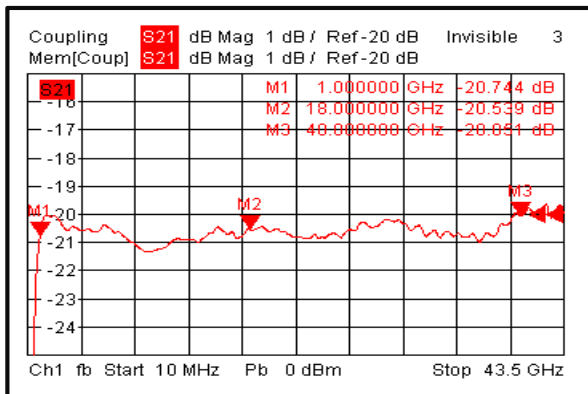
Secondary VSWR



Directivity



Nominal Coupling



Coaxial 30W 20dB Directional Coupler 1 - 40GHz



# RF-LAMBDA

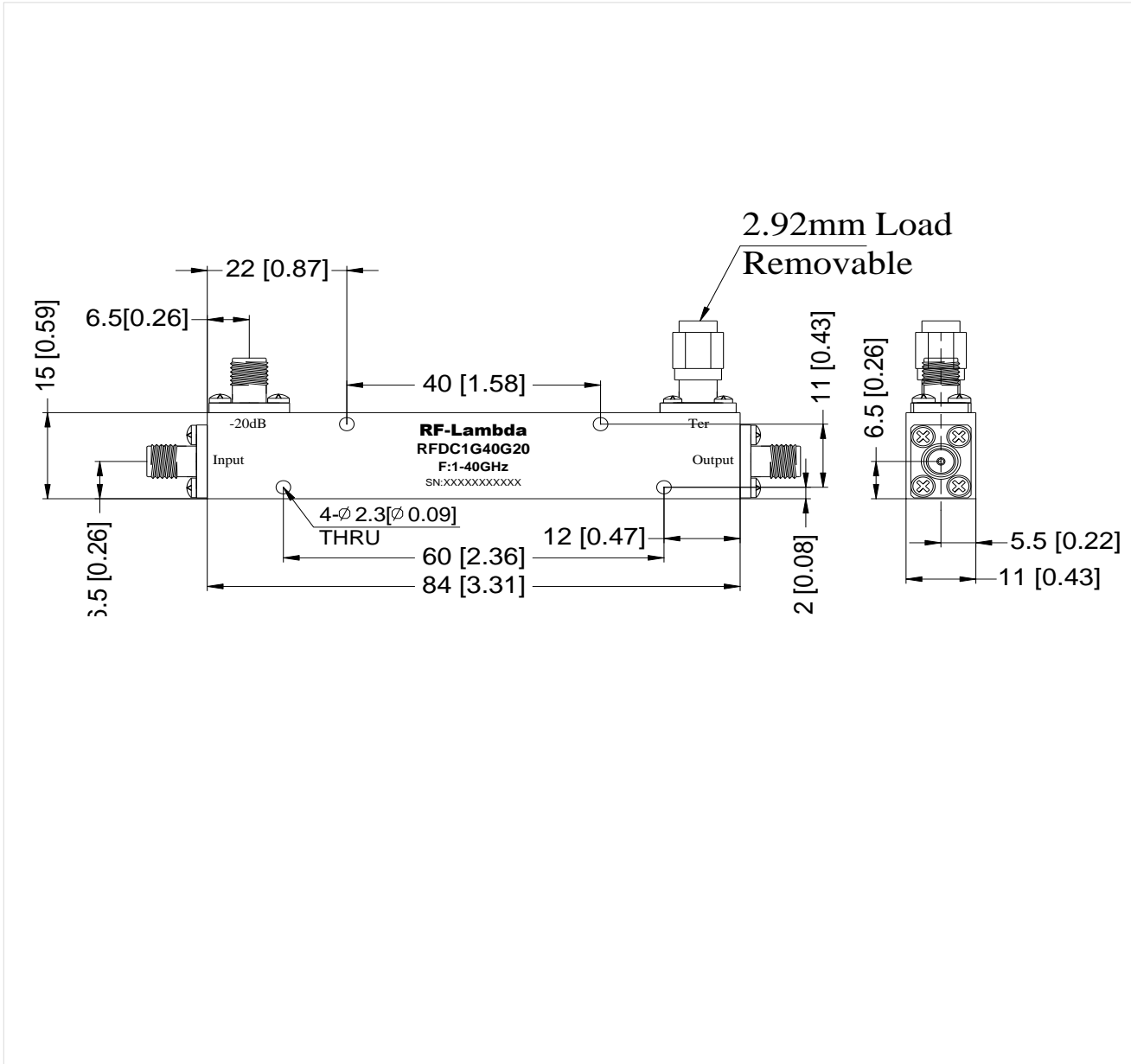
LEADER OF RF BROADBAND SOLUTIONS

## RFDC1G40G20

### Outline Drawing:

All Dimensions in mm [inches]

Tolerance  $\pm 0.2$  [0.008]



### Important Notice

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