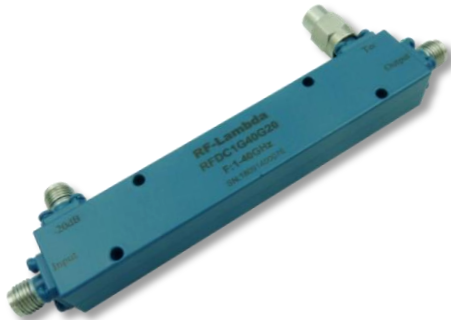


## Coaxial 30W 20dB Directional Coupler 1 - 40GHz



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

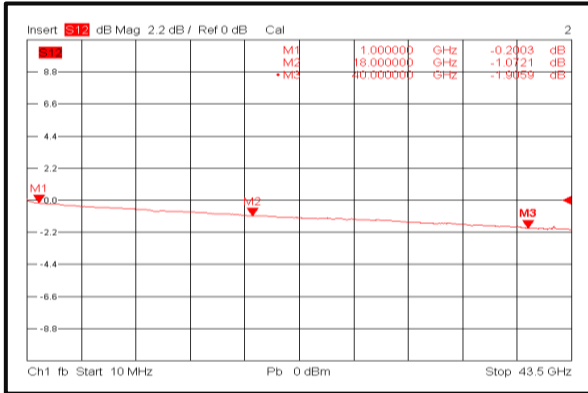
Parameters		Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		1		18	18		40	GHz
Nominal Coupling		19	20	21.5	19	20	21.5	dB
Frequency Sensitivity			$\pm 0.7$	$\pm 1.0$		$\pm 0.7$	$\pm 1.0$	dB
Directivity		12	14		10	12		dB
Insertion Loss (Excl Coupling)				1.2			2.0	dB
Insertion Loss (True)			1.2	1.5		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		1.85 Max.						Ounces
Input / Output Connectors		2.92mm - Female						
Material		Aluminum						
Finish		Blue Paint						

**Environmental Specifications and Test Standards**

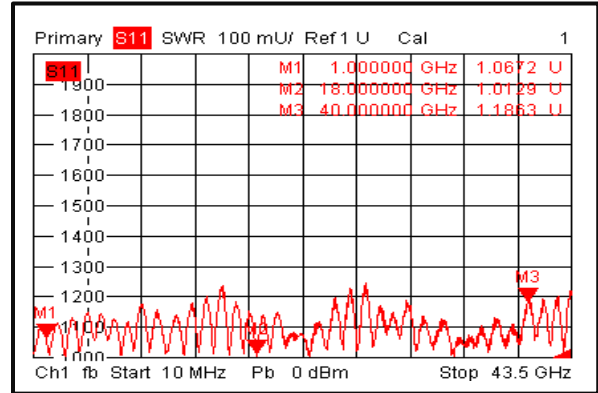
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
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 (For Hermetically Sealed Units)

**Typical Performance Plots**

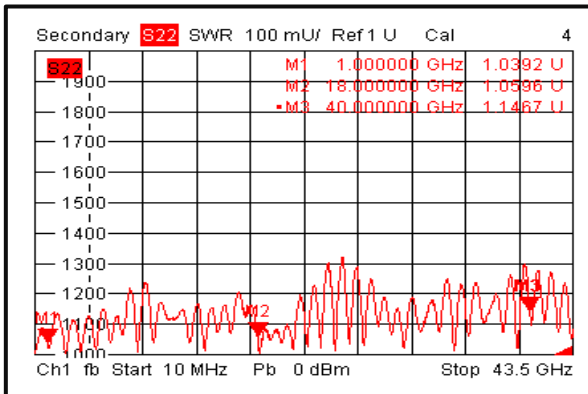
**Insertion Loss**



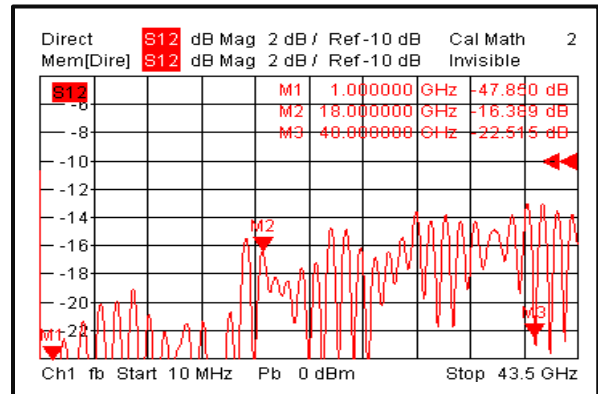
**Primary VSWR**



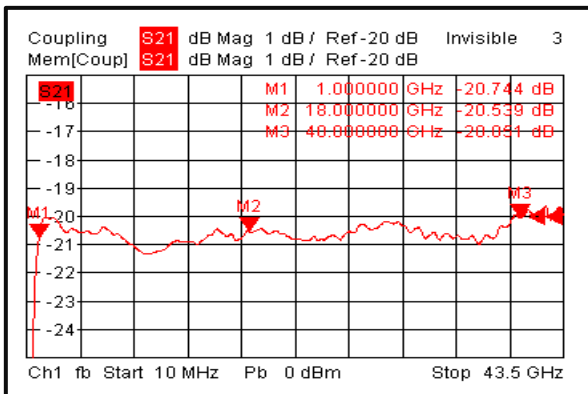
**Secondary VSWR**



**Directivity**



**Nominal Coupling**

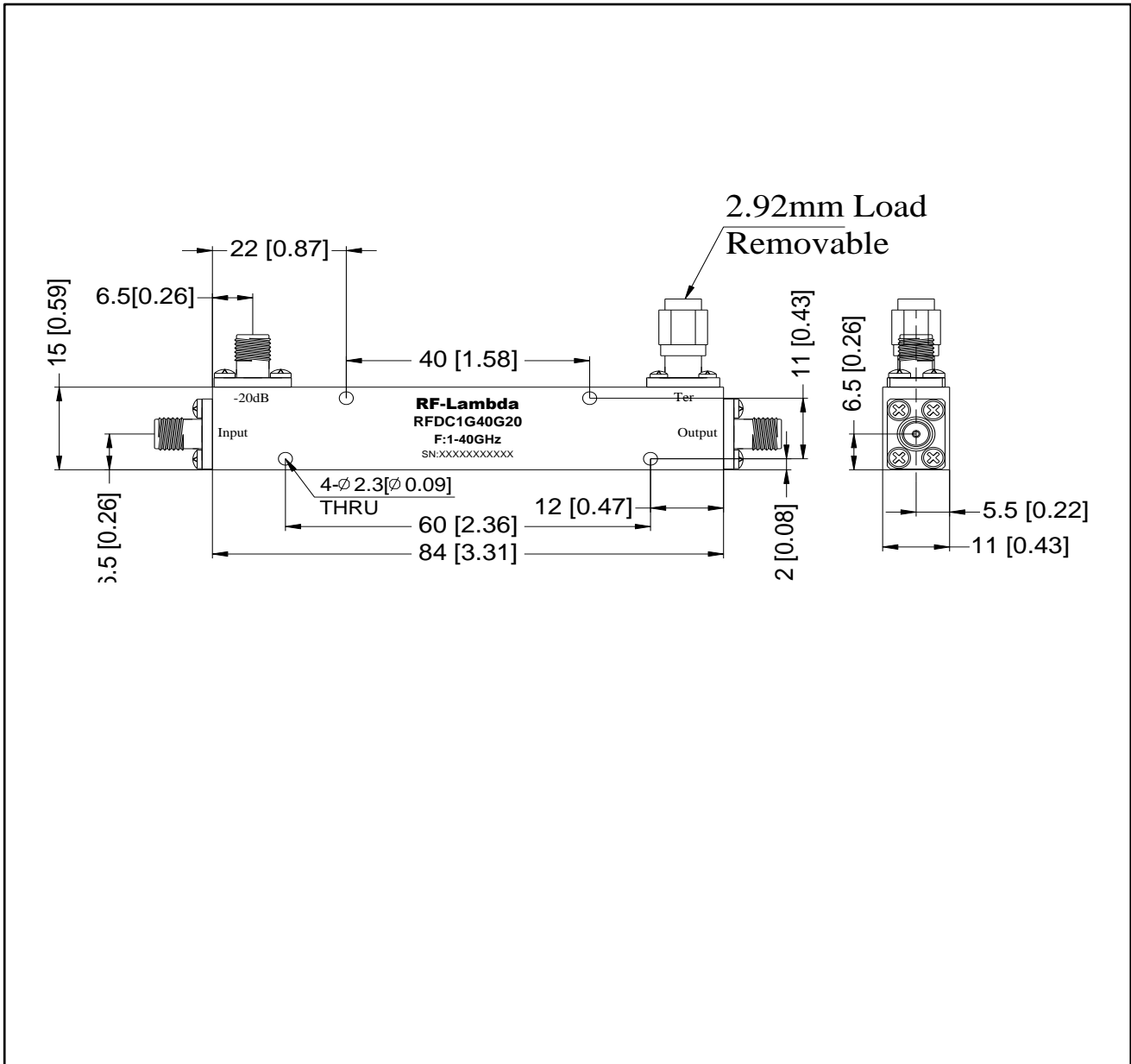


**Outline Drawing:**

All Dimensions in mm [inches]

Outline Tolerances  $\pm 0.5$  [0.02]

Mounting Holes Tolerances  $\pm 0.2$  [0.008]



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

**Important Notice**

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