

Coaxial 20W 30dB Directional Coupler 0.5 - 40GHz



Features

- High power handling up to 20W
- Ultra Wide band operation
- Functional Bandwidth : 0.3GHz to 43.5 GHz
- High directivity within operational band
- Low Insertion Loss

Typical Applications

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

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

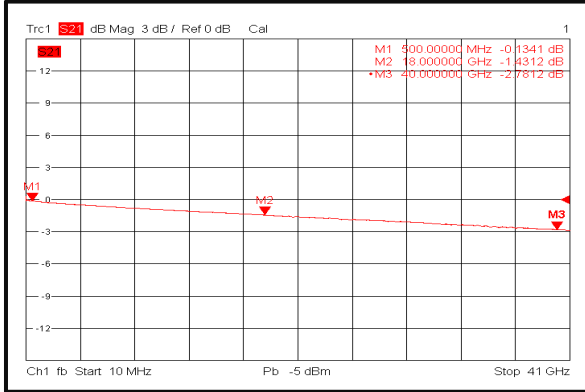
Parameter		Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		0.5		18	18		40	GHz
Nominal Coupling		28.5	30	31.5	28.5	30	31.5	dB
Frequency Sensitivity			± 0.7	± 1.0		± 0.7	± 1.0	dB
Directivity		10	12		8	10		dB
Insertion Loss (Excl. Coupling)				1.8			3.0	dB
Insertion Loss (True)			1.5	1.8		2.8	3.0	dB
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		3.2 Max.						Ounces
Input / Output Connectors		2.92mm - Female						
Material		Aluminum						
Finish		Blue Paint						

Environmental Specifications and Test Standards

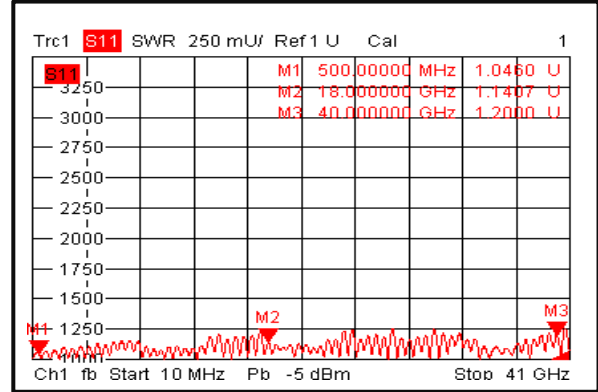
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours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

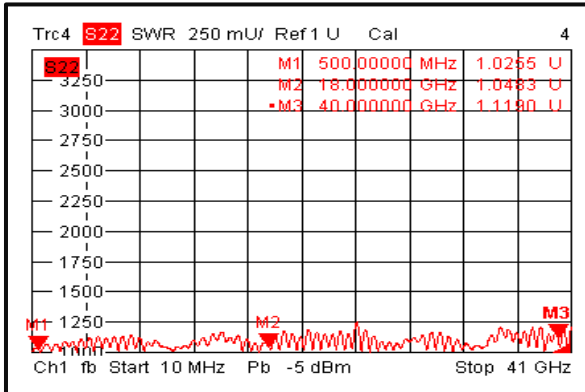
Insertion Loss



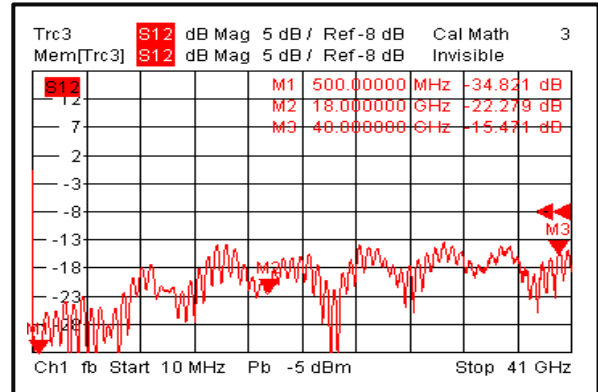
Primary VSWR



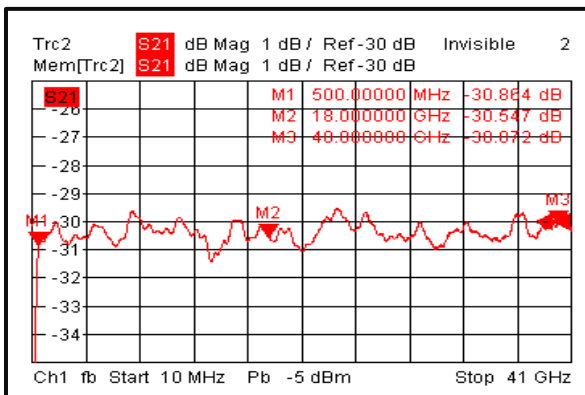
Secondary VSWR



Directivity



Nominal Coupling

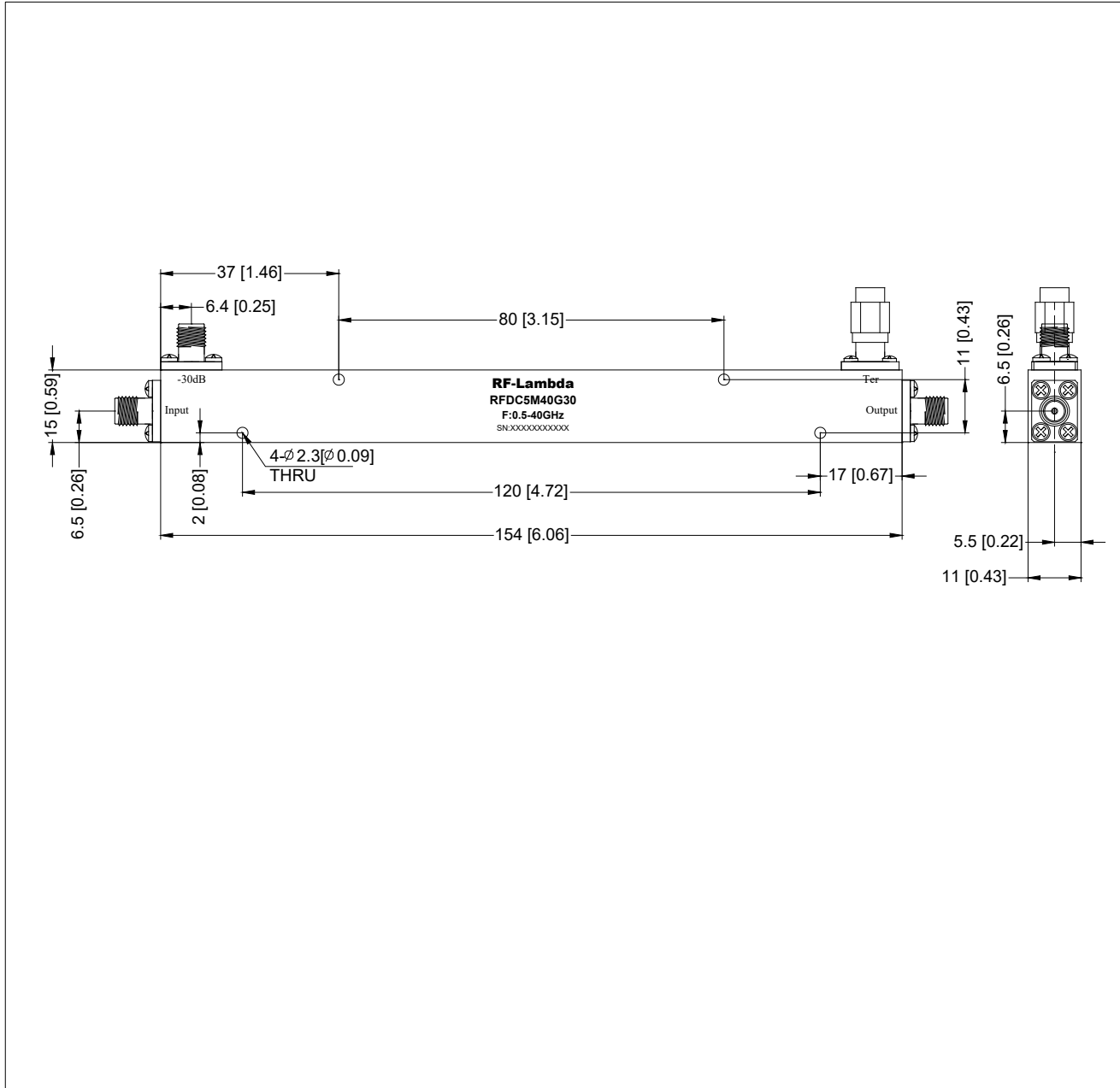


Outline Drawing:

All Dimensions in mm [inches]

Outline Tolerances ± 0.5 [0.02]

Mounting Hole Tolerances ± 0.2 [0.008]



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