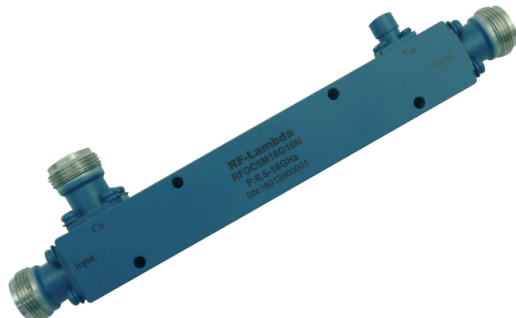


Coaxial 50W 10dB Directional Coupler 0.5-18GHz



Features

- High power handling up to 50W
- Ultra Wide band operation
- High directivity within operational band
- Low Insertion Loss
- High peak to average handling capability

Typical Applications

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

Electrical Specifications, $T_A=25^\circ C$

Parameters		Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		0.5		6	6		18	GHz
Nominal Coupling		9	10	11.5	9	10	11.5	dB
Frequency Sensitivity			± 0.7	± 1.0		± 0.7	± 1.0	dB
Directivity		15	18		10	12		dB
Insertion Loss (Excl Coupling)				0.7			1.3	dB
Insertion Loss (True)			0.8	1.2		1.4	1.8	dB
VSWR Primary			1.3	1.6		1.4	1.6	: 1
VSWR Secondary			1.3	1.6		1.4	1.6	: 1
Power Rating	Average	50						W
	Peak	500 (10% Duty Cycle, 1 us Pulse Width)						W
Impedance		50						Ohms
Weight		7.2 Max.						ounces
Input / Output Connectors		N-Female						
Material		Aluminum						
Finish		Blue Paint						

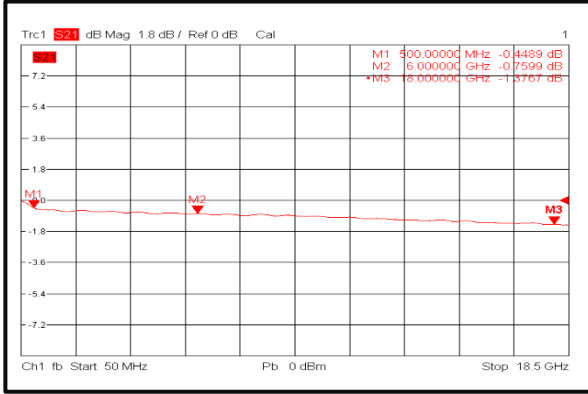
Coaxial 50W 10dB Directional Coupler 0.5-18 GHz

Environmental Specifications and Test Standards

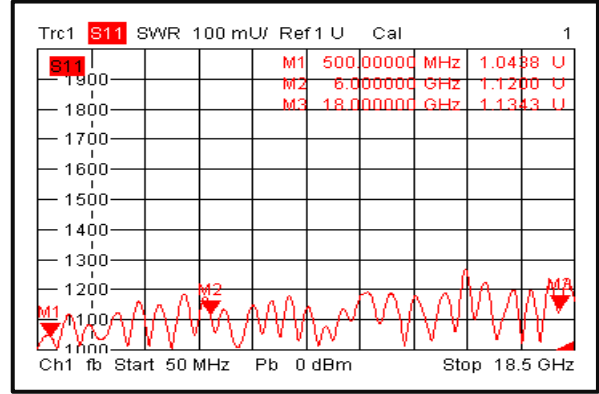
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours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

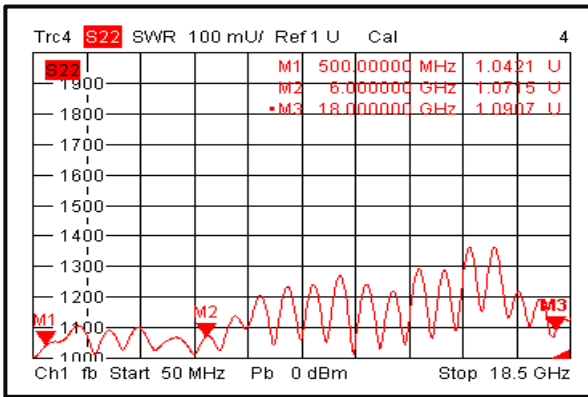
Insertion Loss



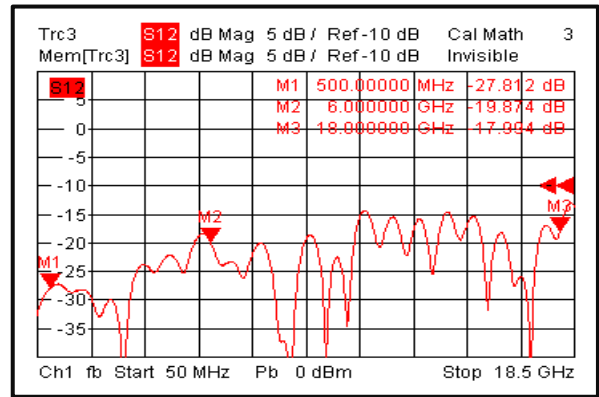
Primary VSWR



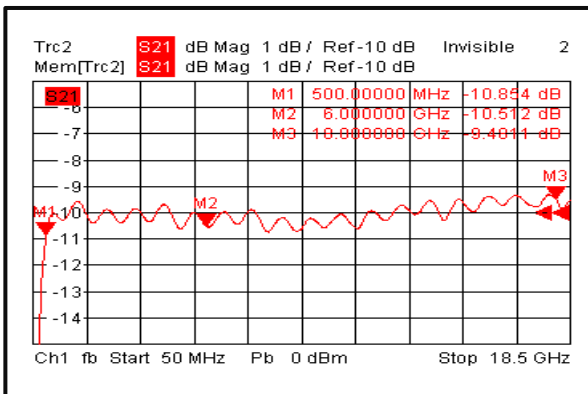
Secondary VSWR



Directivity



Nominal Coupling



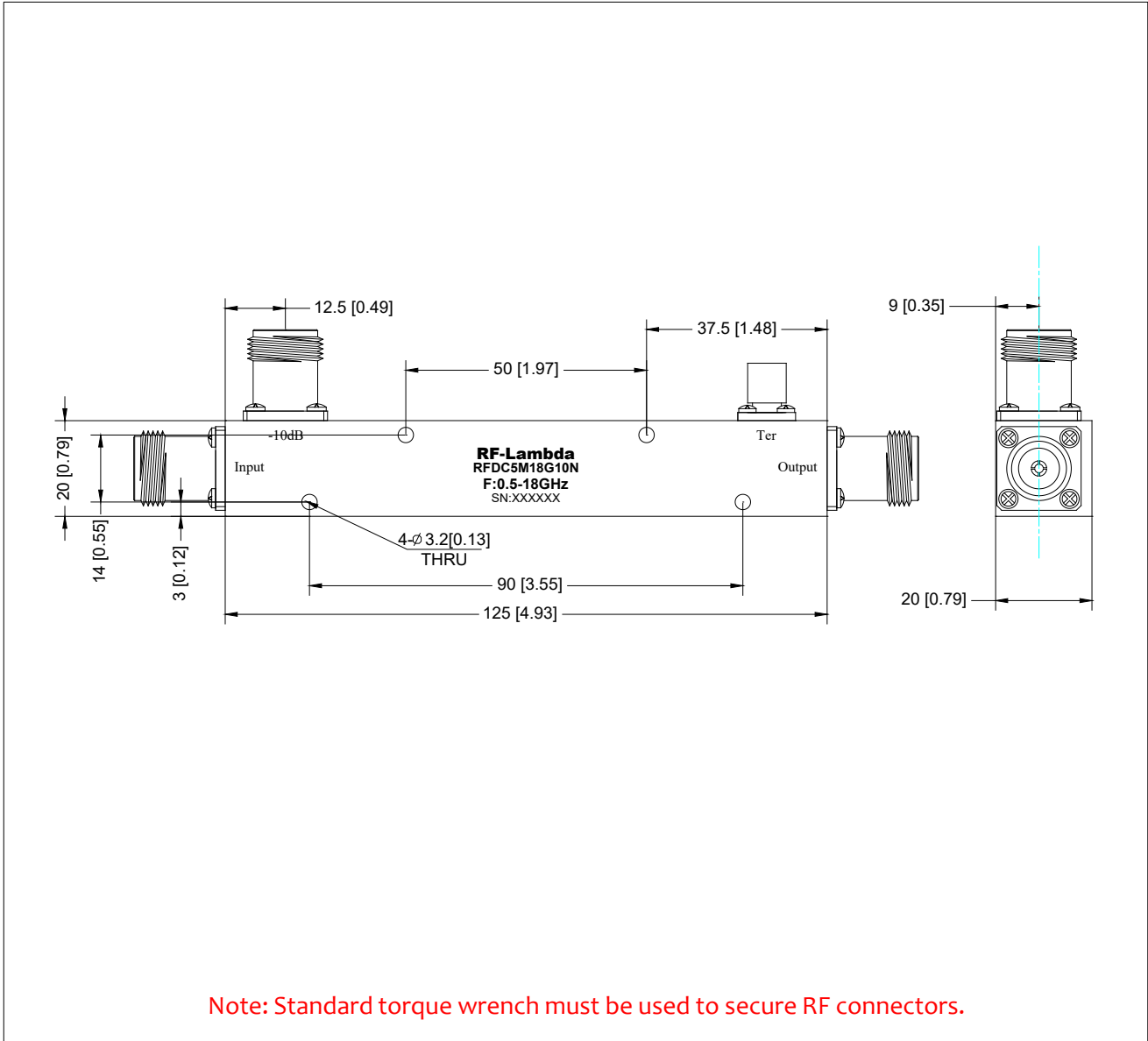
Coaxial 50W 10dB Directional Coupler 0.5-18 GHz

Outline Drawing:

All Dimensions in mm [inches]

Outline Tolerances ± 0.5 [0.02]

Mounting Holes Tolerances ± 0.2 [0.008]



Coaxial 50W 10dB Directional Coupler 0.5-18 GHz

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