



Coaxial 300W 30dB Directional Coupler 8 - 18GHz



Features

- High power handling capability up to 300W
- Wide band operation
- High directivity within operational band
- Low Insertion loss
- Stable performance over temperature
- High peak to average handling capability

Typical Applications

- Aerospace and military applications
- LMDS multi-carrier operation

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

Parameters	Min.	Typ.	Max.	Units
Frequency Range	8		18	GHz
Nominal Coupling	29	30	31	dB
Frequency Sensitivity		± 0.5	± 0.8	dB
Directivity	10	12		dB
Insertion Loss(Excl Coupling)			0.5	dB
Insertion Loss(True)		0.4	0.5	dB
VSWR Primary		1.4	1.5	:1
VSWR Secondary		1.3	1.5	:1
Power Rating	Average	300		W
	Peak	5		KW
Impedance	50			Ohms
Weight	4.59			Ounces
Input / Output/ Coupling Connectors	N-Male/N-Female/ SMA-Female			
Material	Aluminum			
Finish	Blue Paint			



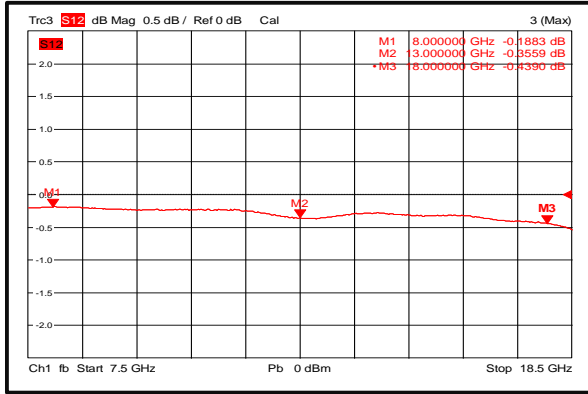
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-40°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)

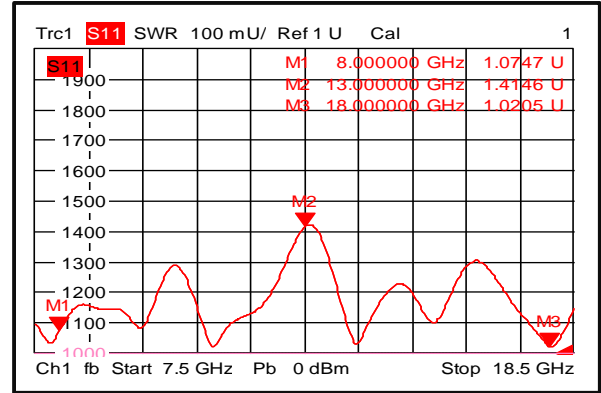


Typical Performance Plots

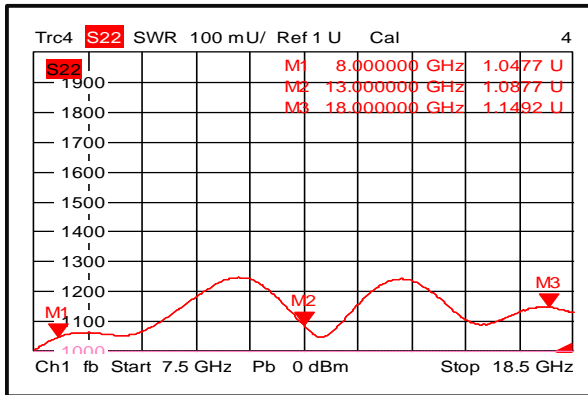
Insertion Loss



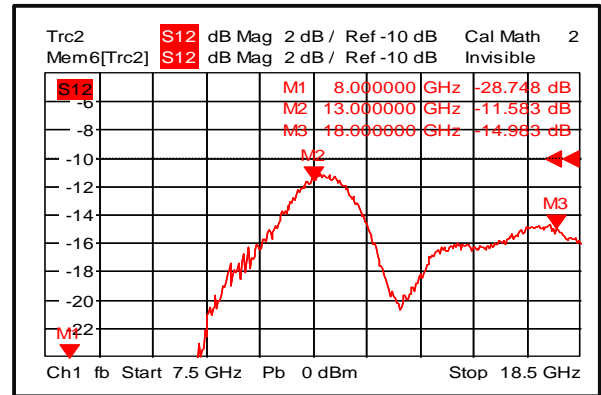
Primary VSWR



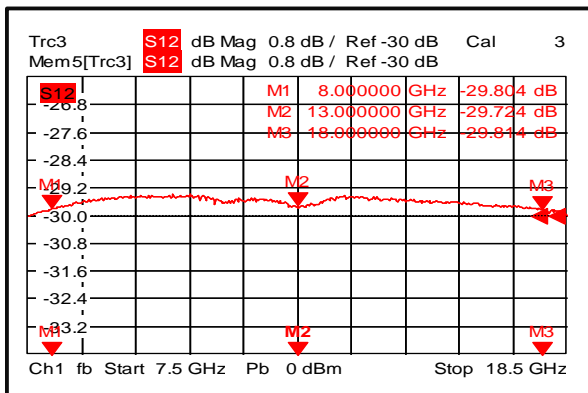
Secondary VSWR



Directivity



Nominal Coupling

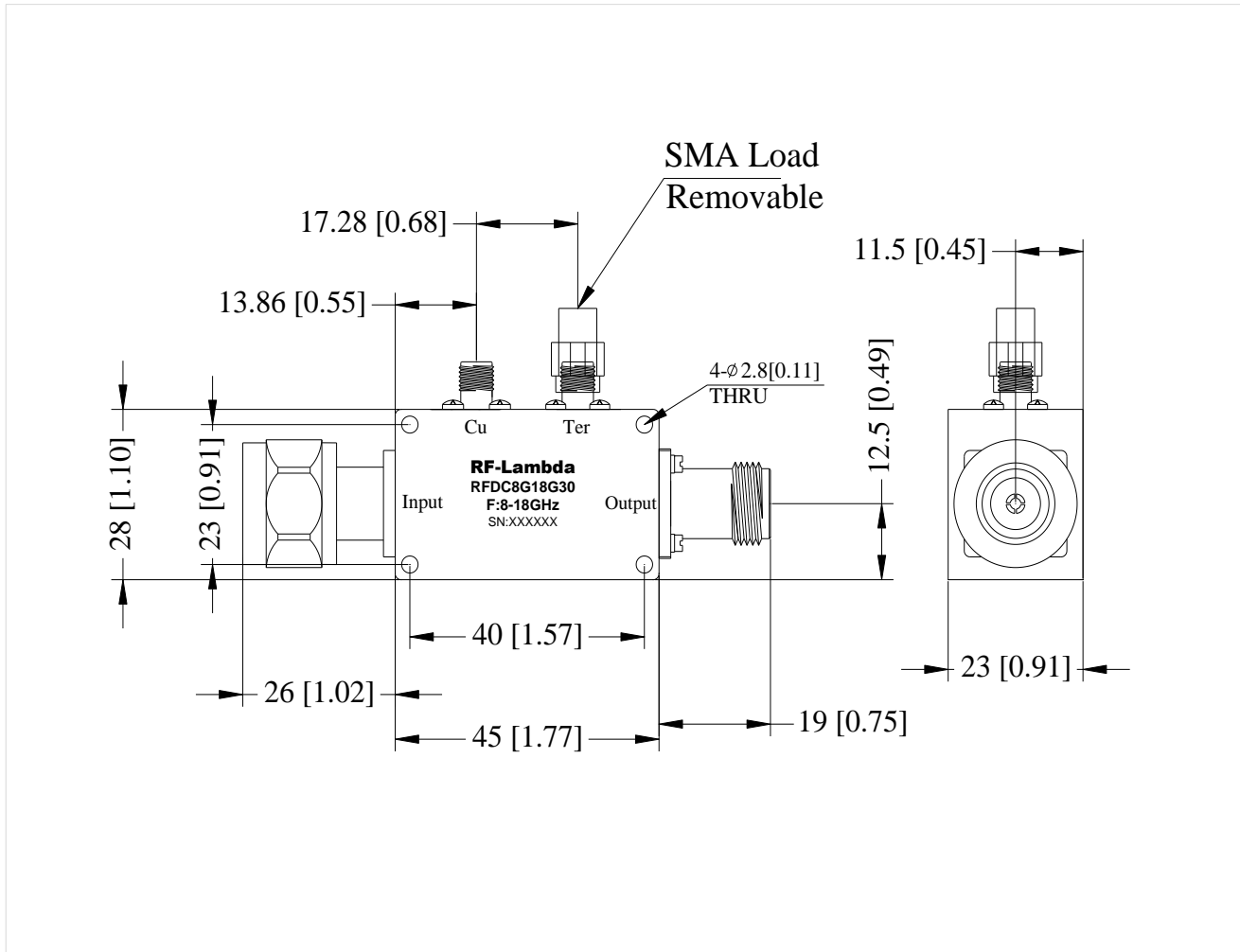




Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.25 [0.01]



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