



### Coaxial 100W 20 dB Directional Coupler 0.4 - 3GHz



#### Features

- High power handling up to 100W
- Wide band operation
- High directivity within operational band
- Low Insertion Loss
- High peak to average handling capability

#### Typical Applications

- Stable performance over temperature
- Aerospace and military applications
- LMDS multi-carrier operation

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

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.4		3	GHz
Nominal Coupling	19	20	21	dB
Frequency Sensitivity		$\pm 0.7$	$\pm 1.0$	dB
Directivity	20	22		dB
Insertion Loss (Excl. Coupling)			0.35	dB
Insertion Loss (True)		0.3	0.4	dB
VSWR Primary		1.2	1.25	: 1
VSWR Secondary		1.15	1.25	: 1
Power Rating	Average	100		W
	Peak	3		KW
Impedance		50		Ohms
Weight		6.7		ounces
Input / Output Connectors	N-Female			
Material	Aluminum			
Finish	Blue Paint			

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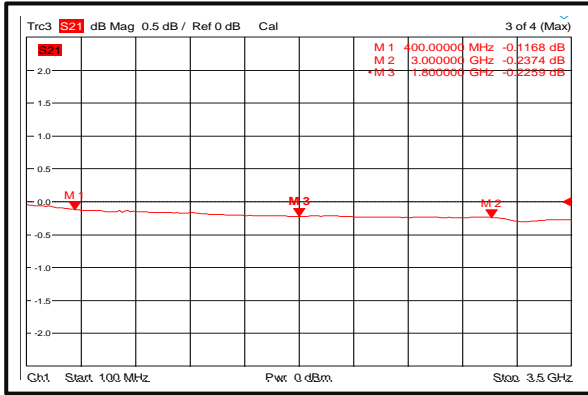
**Environmental Specifications and Test Standards**

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)

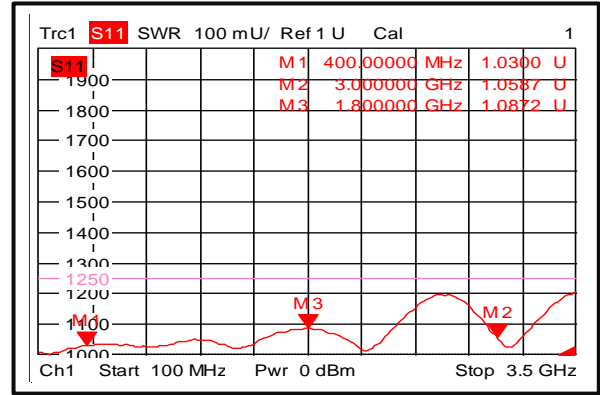


Typical Performance Plots

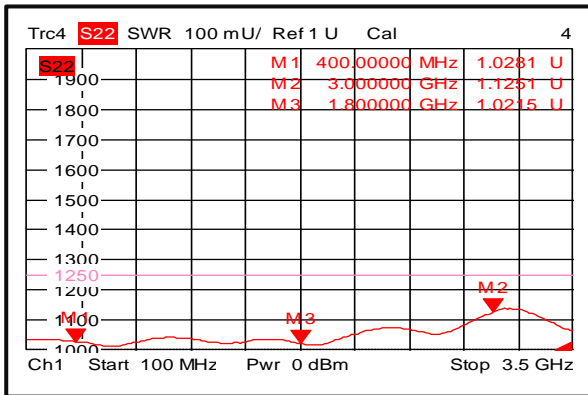
Insertion Loss



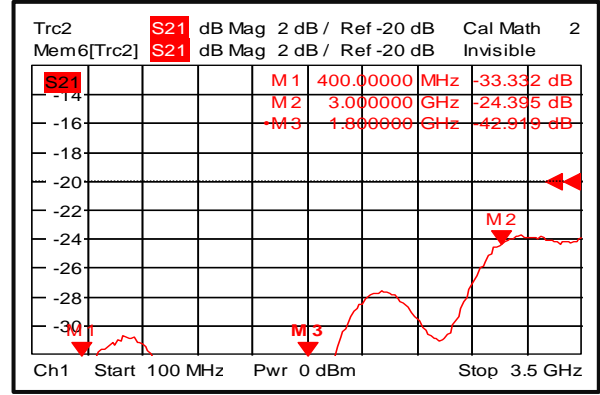
Primary VSWR



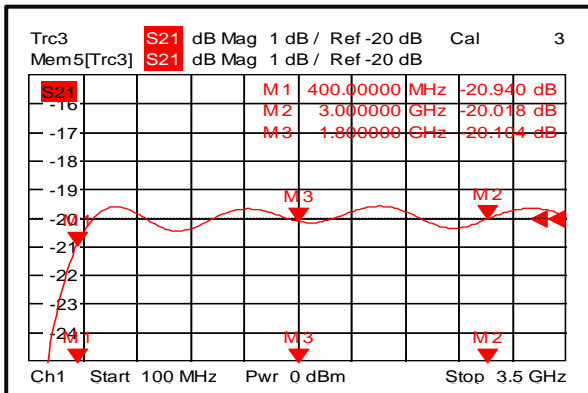
Secondary VSWR



Directivity



Nominal Coupling



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# RF-LAMBDA

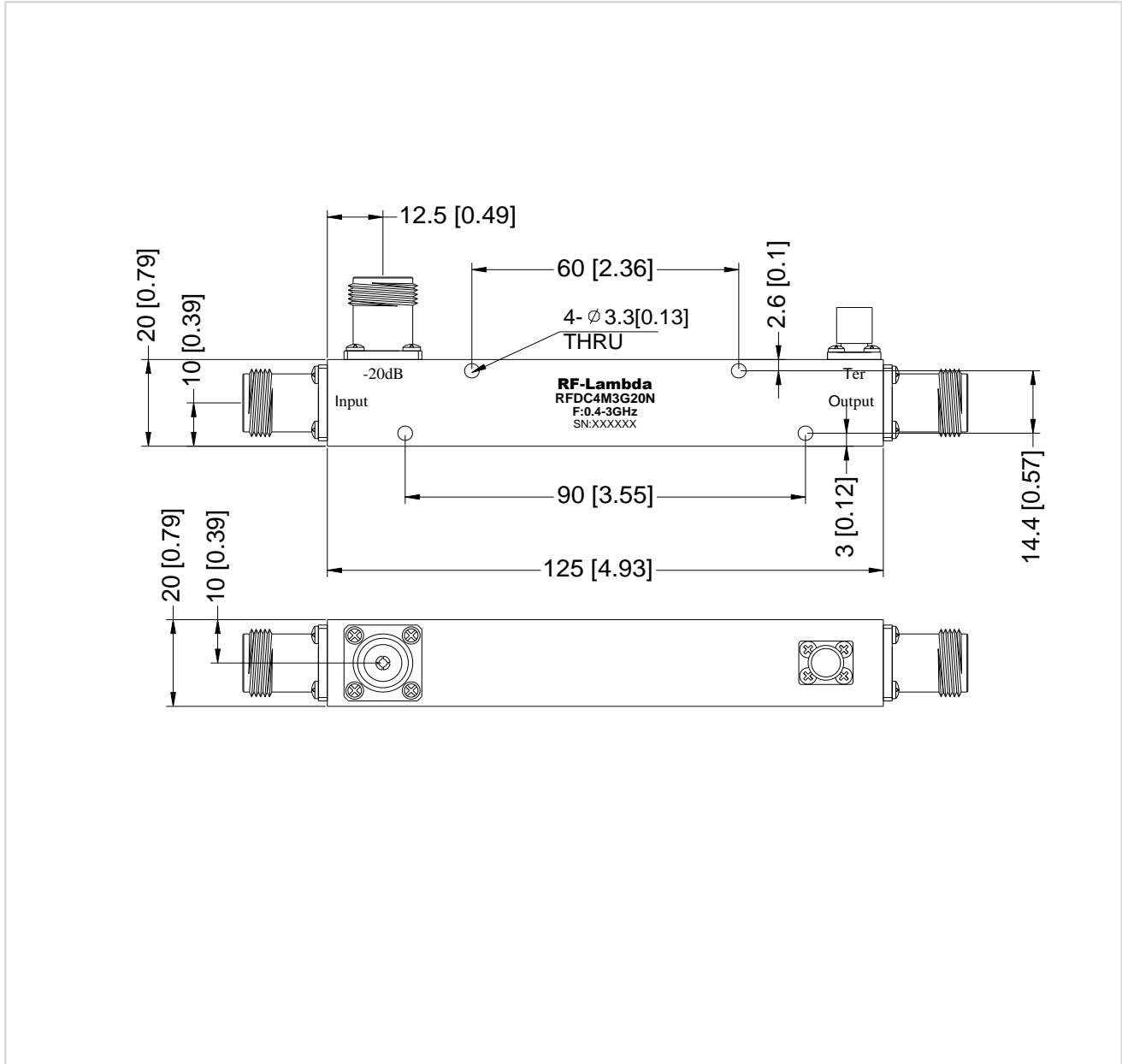
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## RFDC4M3G20N

### Outline Drawing:

All Dimensions in mm [inches]

Tolerance  $\pm 0.25$  [0.01]



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