



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDDC3G11G20

Coaxial 300W 20dB Dual Directional Coupler 3 - 12GHz



Note: The photo is for illustration purposes only.
Please refer to the outline drawing.



Features

- High power handling capability up to 300W
- Wide band operation
- 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.	Units
Frequency Range		3		12	GHz
Nominal Coupling		19	20	21	dB
Frequency Sensitivity			± 0.7	± 1.0	dB
Directivity		10	12		dB
Insertion Loss (Excl Coupling)				0.5	dB
Insertion Loss (True)			0.3	0.5	dB
VSWR Primary			1.3	1.5	:1
VSWR Secondary			1.4	1.5	:1
Power Rating	Average	300			W
	Peak	5			KW
Impedance		50			Ohms
Weight		/			ounces
Input / Output & Coupling Connectors		N-Female & SMA-Female			
Material		Aluminum			
Finish		Blue or Grey Paint			

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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)



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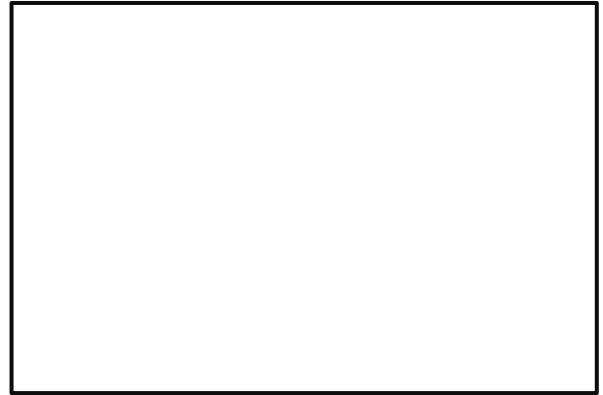
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Typical Performance Plots

Insertion Loss



Primary VSWR



Secondary VSWR



Directivity



Nominal Coupling



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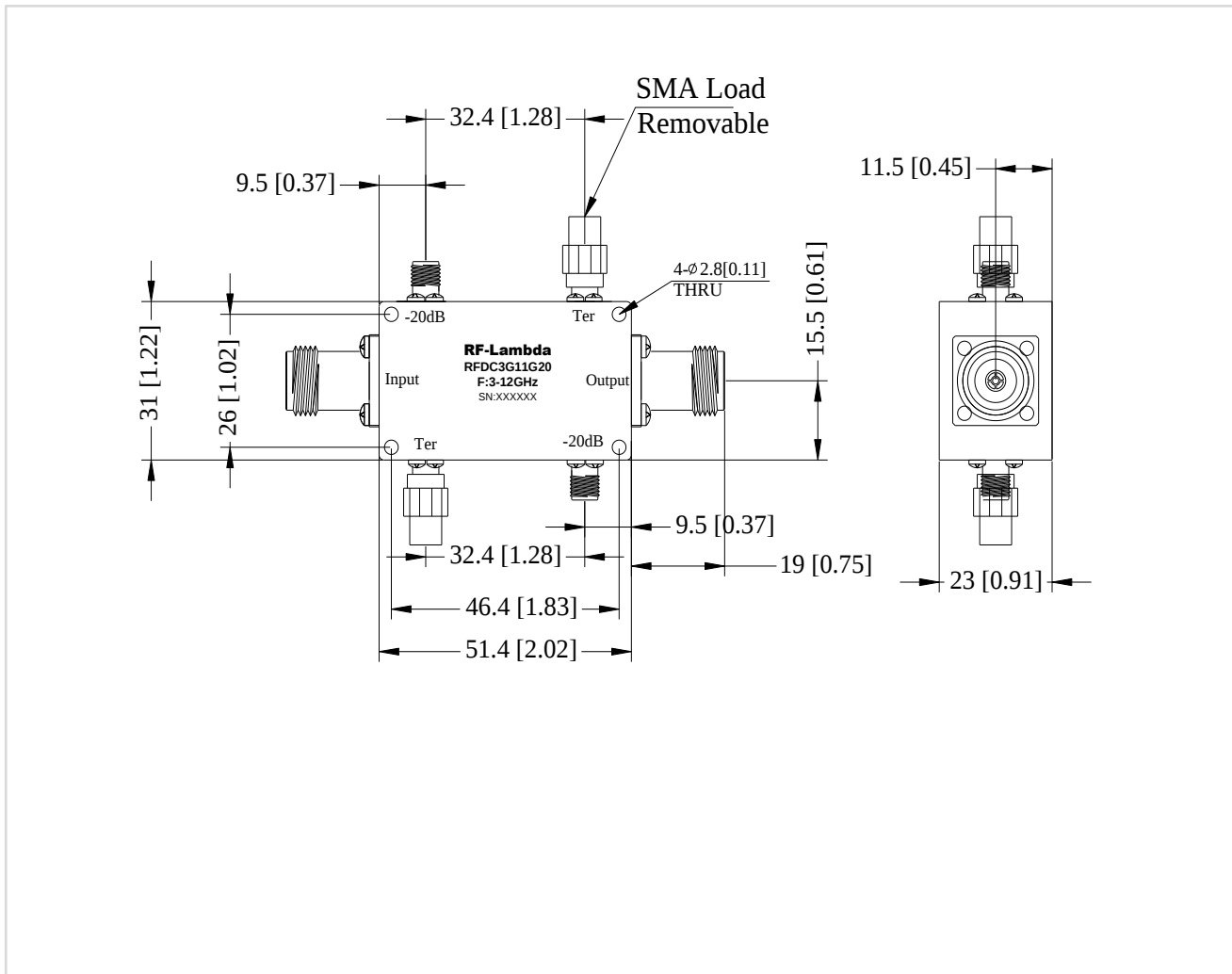
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Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.25 [0.01]



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