Coaxial 200W 30dB Directional Coupler 1.25GHz-1.35GHz

Product Description

RFDC1350G30 is a coaxial directional coupler with a frequency range of 1.25 to 1.35GHz.

The max input power of this directional coupler is 200W. The insertion loss is 0.15dB with a typical directivity of 25dB.

The working temperature of this product is between - 40℃ and + 85℃.

Features

- High power handling up to 200W
- Wide band operation
- High directivity within operational band
- Low Insertion Loss

Typical Applications

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations

Electrical Specifications, TA = +25°C

Parameter		Min	Typ	Max	Units
Frequency Range		1.25		1.35	GHz
Nominal Coupling		29.6	30	30.4	dB
Frequency Sensitivity			0.15	0.35	dB
Directivity		20	25		dB
Insertion Loss (Excl Coupling)			0.1	0.2	dB
Insertion Loss (true)			0.1	0.2	dB
VSWR Primary			1.1	1.15	: 1
VSWR Secondary			1.1	1.15	: 1
Power Rating	Average		200		W
	Peak		3 (10% Duty Cycle, 1 us Pulse Width)		W
Weight			0.41 Max.		lbs
Impedance			50		Ω
Input / Output Connectors			N-Female(Input) –N-Female(Output)		
Package			Epoxy Sealed (Standard)		
			Hermetically Sealed (Optional)		

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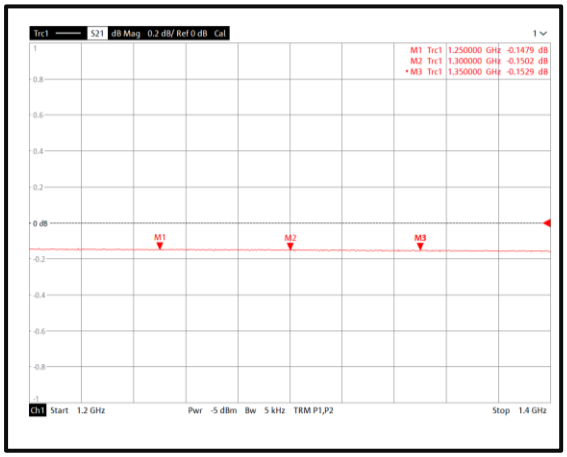
Environmental Specifications and Test Standards

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

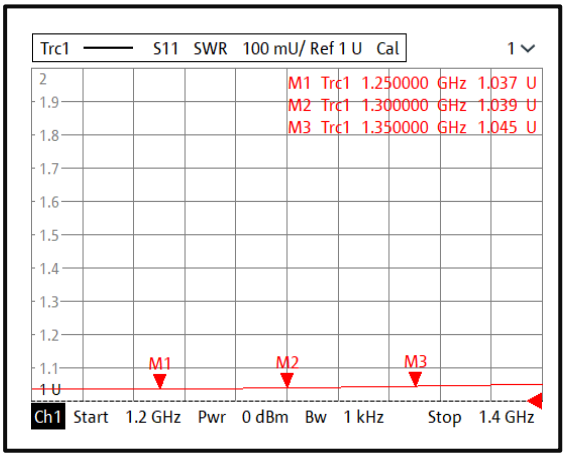
*For vibration testing details please see additional information section.

Typical Performance Plots

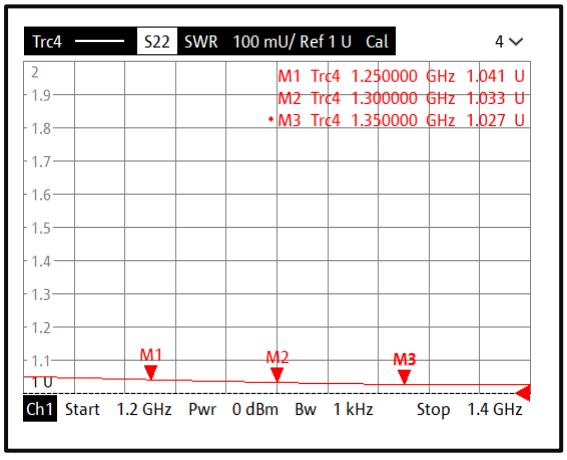
Insertion Loss



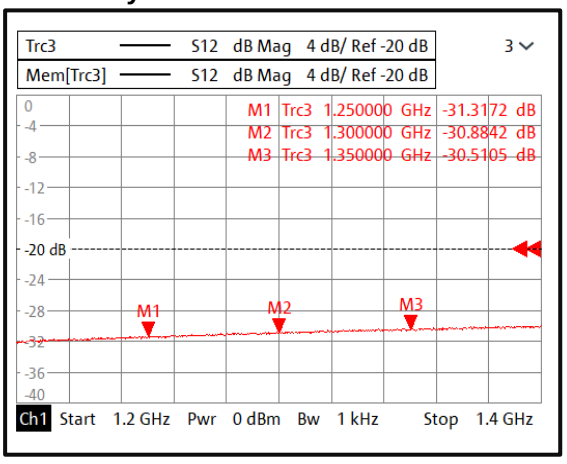
Primary VSWR



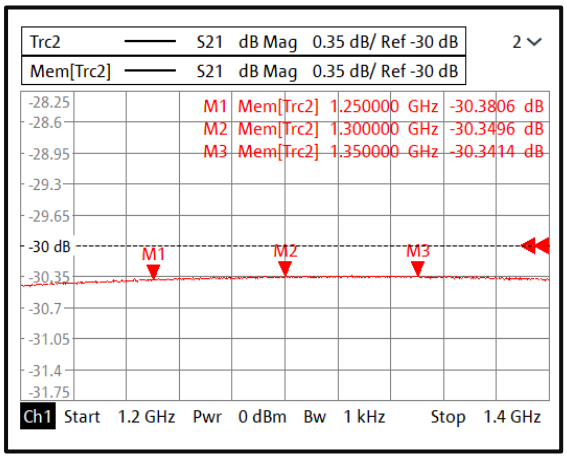
Secondary VSWR



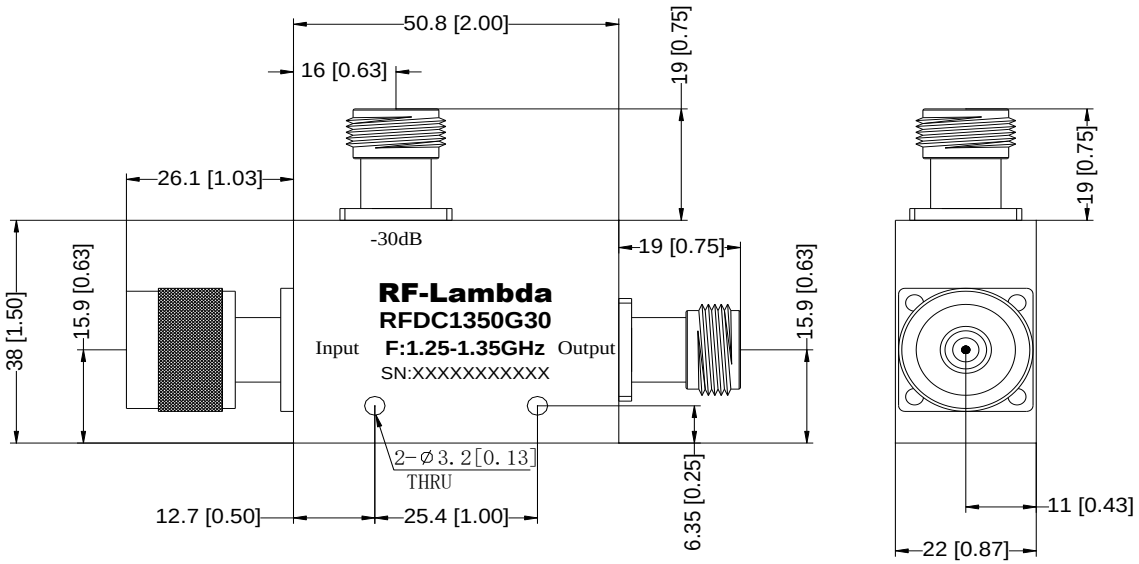
Directivity



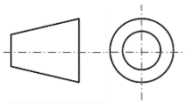
Nominal Coupling



Outline Drawing



Notes:
1. Package Material: Aluminum
2. Finish: Blue Paint
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ±0.5 [0.02], Mounting Hole Tolerances ±0.2 [0.008] unless otherwise specified.
5. Standard torque wrench must be used to secure RF connectors.



Additional Information

Documentation	Webpage
Connector Torque Specifications	https://www.rflambda.com/pdf/Torque_Specifications.pdf
Random Vibration Test Standard	https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf

Ordering Information

Part Number	Modification	Description
RFDC1350G30	Connectors N-Female	1.25GHz-1.35GHz Directional Coupler

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