



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDC2G8G15

Coaxial 50W 15dB Directional Coupler 2 - 8GHz



Features

- High power handling up to 50W
- 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
- LMDS multi-carrier operation

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

Parameter		Min.	Typ.	Max.	Units
Frequency Range		2		8	GHz
Nominal Coupling		14	15	16	dB
Frequency Sensitivity			± 0.7	± 1.0	dB
Directivity		20	22		dB
Insertion Loss (Excl. Coupling)				0.4	dB
Insertion Loss (True)			0.3	0.5	dB
VSWR Primary			1.15	1.2	: 1
VSWR Secondary			1.15	1.2	: 1
Power Rating	Average	50			W
	Peak	1			KW
Impedance		50			Ohms
Weight		1.06			ounces
Input / Output Connectors		SMA-Female			
Material		Aluminum			
Finish		Blue Paint			

Coaxial 50W 15dB Directional Coupler 2 - 8GHz



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDC2G8G15

Environmental Specifications and Test Standards

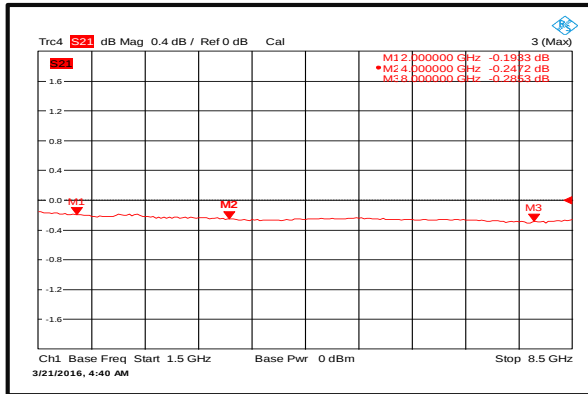
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 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	MIL-STD-883	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)

Coaxial 50W 15dB Directional Coupler 2 - 8GHz

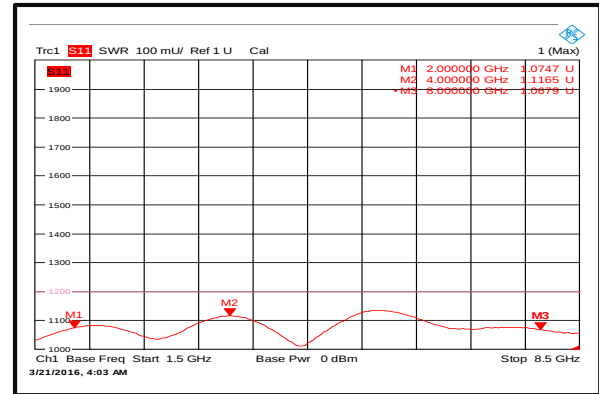


Typical Performance Plots

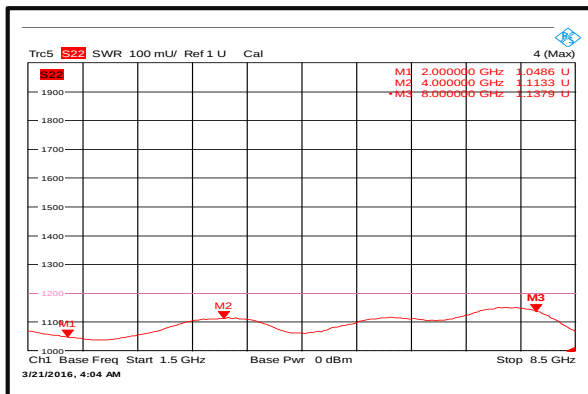
Insertion Loss



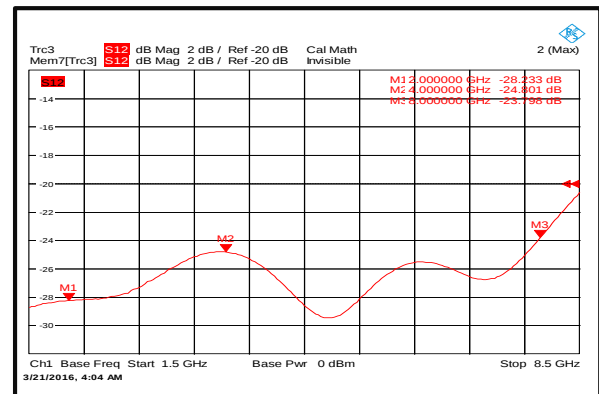
Primary VSWR



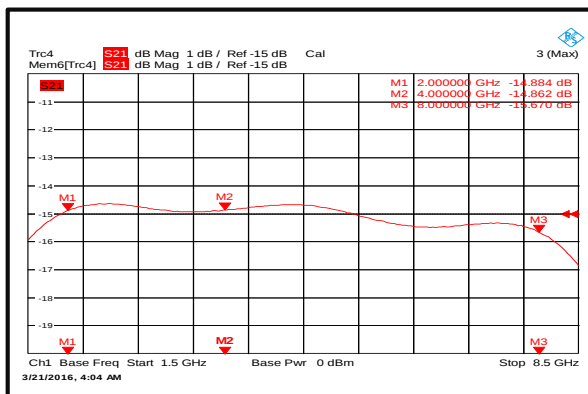
Secondary VSWR



Directivity



Nominal Coupling





RF-LAMBDA

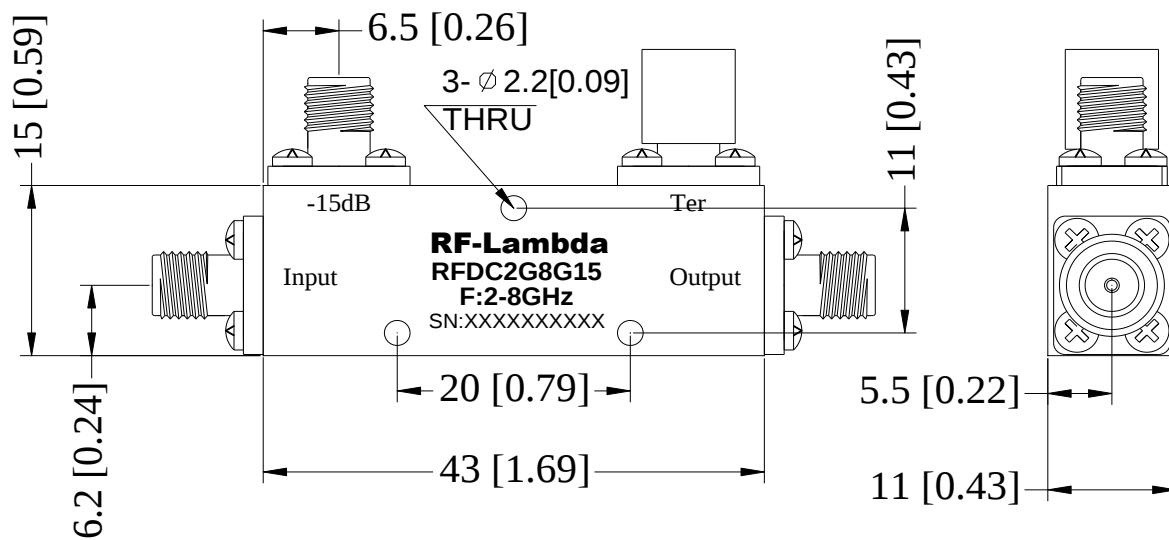
LEADER OF RF BROADBAND SOLUTIONS

RFDC2G8G15

Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.25 [0.01]



Coaxial 50W 15dB Directional Coupler 2 - 8GHz

Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.