



RF-LAMBDA

The power beyond expectations

RFDC1G40G10

Coaxial 20W 1-40GHz 10dB Directional Coupler



- High power handle capability up to 20W
- Wide band operation
- High isolation within operational band
- Low Insertion loss
- Low temperature coefficient material offer stable performance over temperature
- Aerospace and military application
- LMDS multi-carrier operation
- High peak to average handle capability
- All specifications can be modified upon request

Electrical Specifications

Parameter	Frequency Range (GHz)	Min.	Typ.	Max.	Units
Insertion Loss(Excl Coupling)	0.3-1.0		0.2	0.3	dB
	1.0-10		1.0	1.2	dB
	10-20		1.4	1.6	dB
	20-43.5		2.3	2.5	dB
Nominal Coupling	0.3-0.5			16±2.0	dB
	0.5-1.0			13±2.0	dB
	1.0-20			10±1.0	dB
	20-43.5			10±1.0	dB
Coupling Flatness	0.3-0.5			±2.0	dB
	0.5-1.0			±2.0	dB
	1.0-20			±1.0	dB
	20-43.5			±1.0	dB
Directivity	0.3-20	12	14		dB
	20-40	10	12		dB
	40-43.5	8	10		dB
VSWR Primary	0.3-20		1.4	1.5	M v
	20-40		1.6	1.7	M v
	40-43.5		1.7	1.8	M v
VSWR Secondary	0.3-20		1.4	1.5	M v
	20-40		1.6	1.7	M v
	40-43.5		1.7	1.8	M v
Power Handling	0.3-43.5			30	Watts
Operating Temperature	0.3-43.5	-55		+85	°C
Impedance	50				Ohms
Input / Output Connector	2.92-Female				
Finishing	Gray Paint				
Material	Aluminum				

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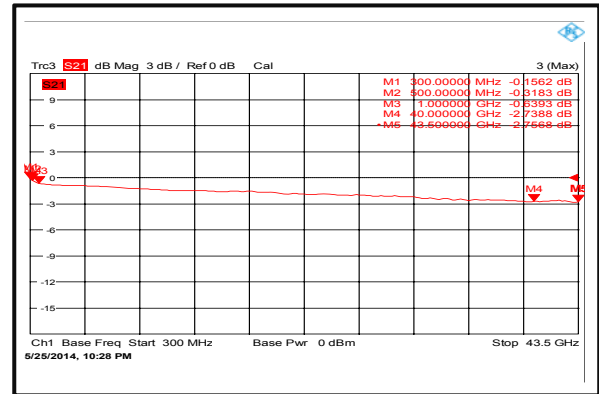
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Environment specifications

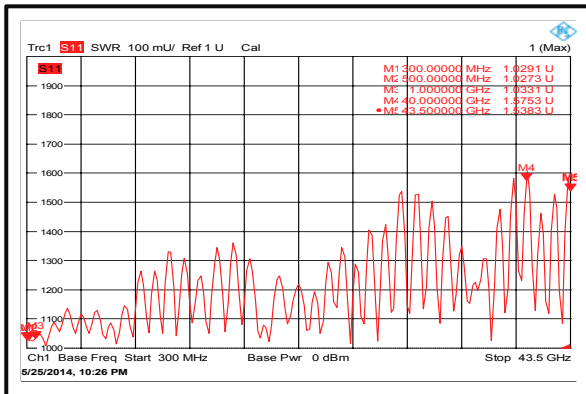
Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40 deg c
Shock	20G for 11msc half sin wave, 3 axis both directions

Typical Performance Plots

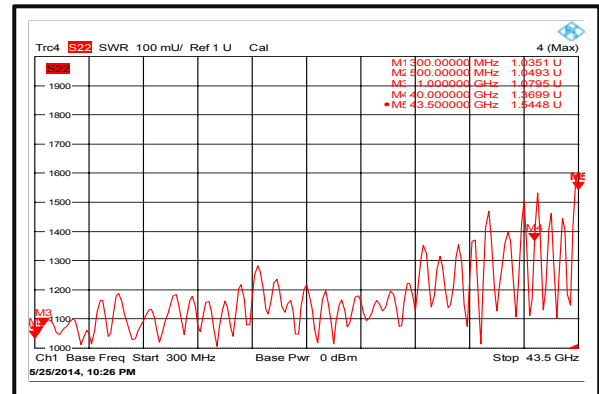
Insertion Loss



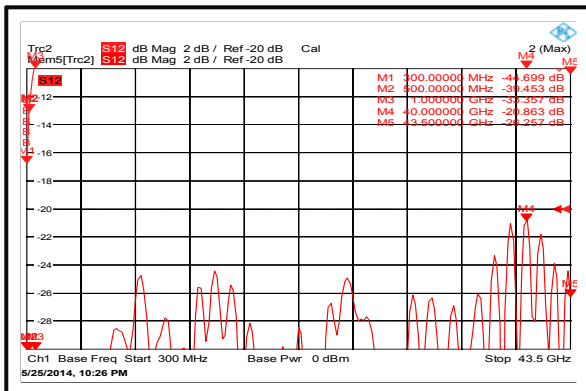
Primary VSWR



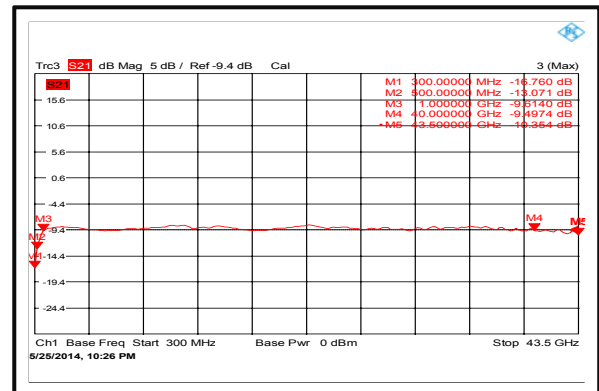
Secondary VSWR



Directivity



Nominal Coupling



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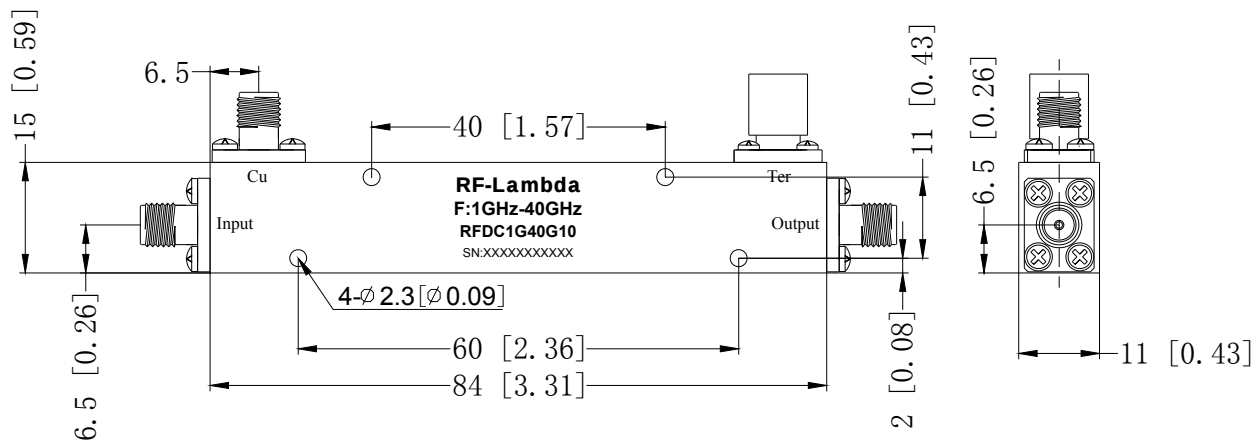
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Outline Drawing:

All Dimensions in mm (inches)

Tolerance ± 0.25 (0.01)



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