

# **Ultra Wide Band Coaxial Isolator** 1.4-1.9GHz





#### **Features**

- High power handling up to 50W
- Wide band operation
- · High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- All specifications can be modified upon request

### **Typical Applications**

- Aerospace and military applications
- LMDS multi-carrier operation

## Electrical Specifications, $T_A=25$ °C

Parameter	Min.	Тур.	Max.	Units
Frequency Range	1.4-1.9 GHz			
Insertion Loss		0.40	0.50	dB
Isolation (Note 1)	18	19		dB
VSWR		1.20	1.25	:1
Forward Power (CW)			50	W
Reverse Power (CW)			5	W
Rotation	Clockwise (Standard) Counter Clockwise (upon request)			
Input / Output Connectors	SMA-Female			
Finish	Nickel Plated			
Case Material	Aluminum alloy			
Weight	ounces			
Impedance	50 Ω			

Note 1: Units which have a narrower frequency bandwidth can achieve higher isolation & lower insertion loss

Bandwidth (5 ~10) % x Center Frequency (Isolation >23dB)

Bandwidth (20~30) % x Center Frequency (Isolation >21dB)

Bandwidth (40~60) % x Center Frequency (Isolation >20dB)

Ask manufacturer for details

RF-LAMBDA USA

www.rflambda.com

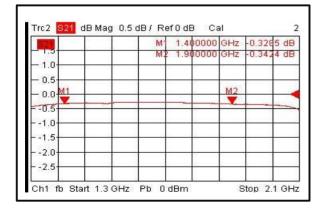


## **Environmental Specifications and Test Standards**

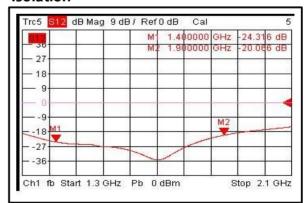
Parameter	Standard	Description	
Operational Temperature		-20°C~+70°C	
Storage Temperature		-55°C~+125°C	
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)	
Random Vibration	MIL-STD-39016	Acceleration Spectral Density 6 (m/s) Total 92.6 RMS	
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours	
Shock		<ol> <li>Weight &gt;20g, 50g half sine wave for 11ms, Speed variation 3.44m/s</li> <li>Weight &lt;=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s</li> <li>Total 18 times (6 directions, 3 repetitions per direction).</li> </ol>	
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**

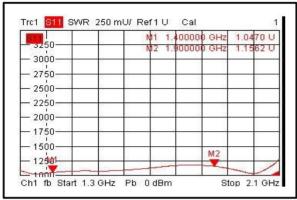


#### Isolation

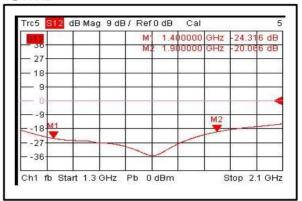




#### VSWR<sub>1</sub>

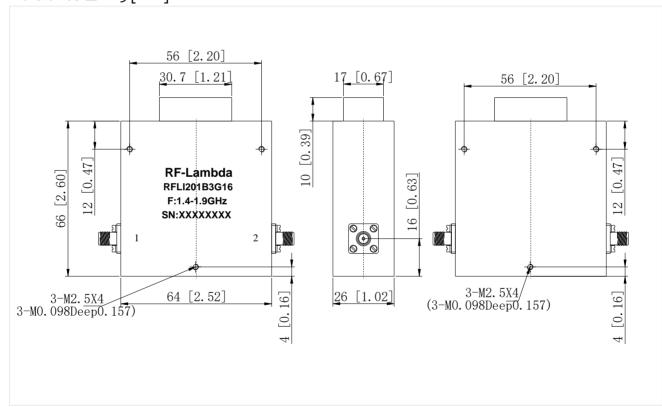


#### VSWR<sub>2</sub>



# **Outline Drawing:**

All Dimensions in mm [inches] Tolerance  $\pm 0.25$  [0.01]



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