



### Ultra Wide Band Coaxial Isolator 4 - 8GHz



#### Features

- High power handling up to 30W
- 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, $T_A=25\text{ }^\circ\text{C}$

Parameter	Min	Typ.	Max	Units
Frequency Range	4-8			GHz
Insertion Loss		0.40	0.50	dB
Isolation (Note 1)	19	20		dB
VSWR		1.30	1.35	:1
Average power(CW)			30	W
Peak Power(CW)			0.12	KW
Reverse Power (CW)			10	W
Rotation	Clockwise (Standard) Counter Clockwise (upon request)			
Input / Output Connectors	SMA-Female			
Finish	Nickel Plated			
Case Material	Aluminum alloy			
Weight		1.06		ounces
Impedance		50		$\Omega$

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 >22dB)  
 Bandwidth (40~60) % x Center Frequency (Isolation >21dB)  
 Ask manufacturer for details

Ultra Wide Band Coaxial Isolator 4 - 8GHz

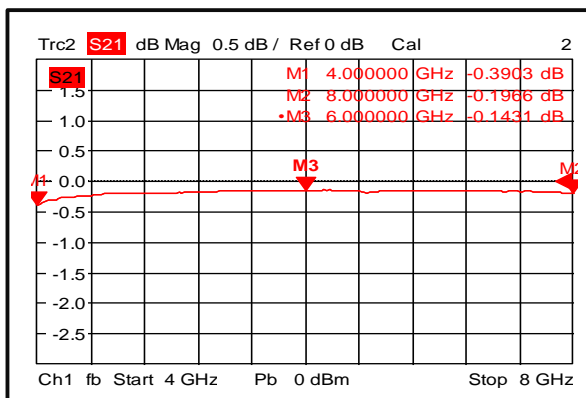


**Environmental Specifications and Test Standards**

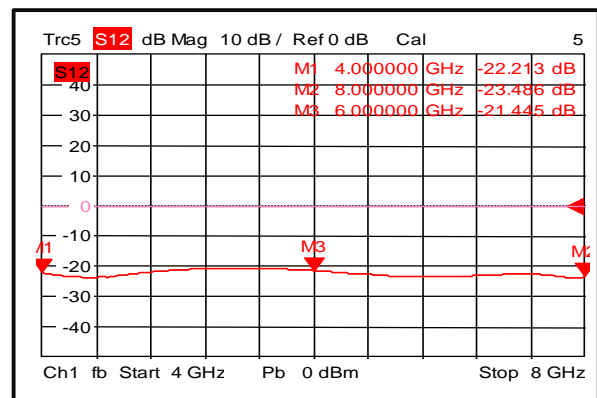
Item	Standard		Description
Operation Temperature	Parameter	Standard	Description
Storage Temperature	Operational Temperature	MIL-STD-39016	-20°C~+70°C
Thermal Shock	Storage Temperature		-55°C~+125°C
Random Vibration	Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Electrical & Temperature Burn In	Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Shocking	Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
Altitude	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). Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
	Altitude		
Hermetical Seal (Optional)	Hermetically Sealed (Optional)	MIL-STD-883	MIL-STD-883 (For Hermetically Sealed Units)

**Typical Performance Plots**

**Insertion Loss**



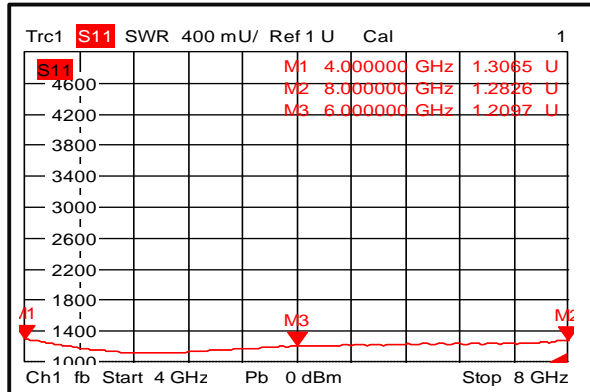
**Isolation**



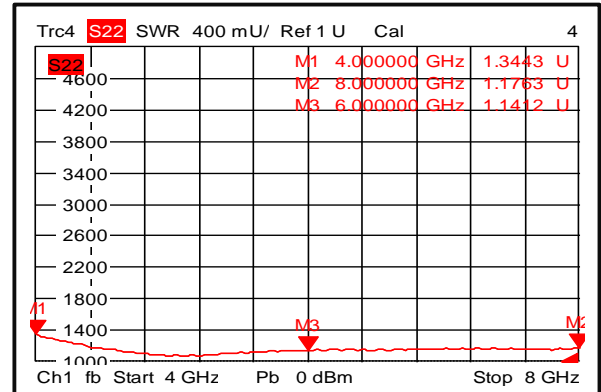
**Ultra Wide Band Coaxial Isolator 4 - 8GHz**



**VSWR 1**

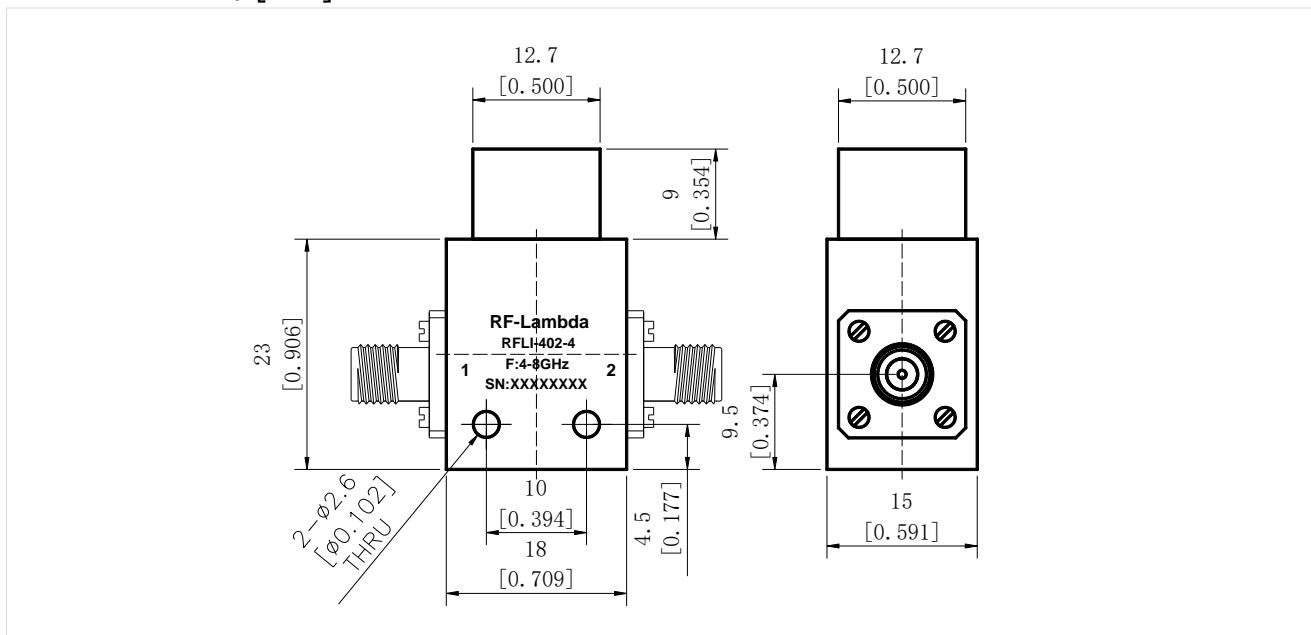


**VSWR2**



**Outline Drawing:**

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



**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.

**Ultra Wide Band Coaxial Isolator 4 - 8GHz**