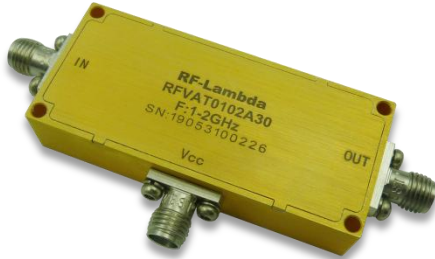




### Absorptive Voltage Control Attenuator 1 - 2GHz



#### Features

- Wide Band Operation 1-2GHz
- Wide Attenuation Range 30dB
- Absorptive Topology
- Single Control Operation

#### Typical Applications

- Wireless Infrastructure
- Military and Aerospace
- Test and Measurement

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

Description	PN: RFVAT0102A30			
	Absorptive Voltage Attenuator			
Parameters	Min	Typ.	Max	Units
Frequency Range	1		2	GHz
Attenuation Range	30			dB
Insertion Loss		0.7	1.2	dB
Insertion Loss Temperature Coefficient		0.003		dB/ $^\circ\text{C}$
Input VSWR		1.3	1.5	: 1
Output VSWR		1.3	1.5	: 1
Input 1dB Compression Point		27		dBm
IP <sub>3</sub> Input		35		dBm
Switching Speed		10		us
Control Voltage	0	8		V
Weight	1.41			ounces
Impedance	50			$\Omega$
Current	25			mA
Input / Output Connectors	SMA-Female			
Control connector	SMA-Female			
Finish	Gold Plated			
Material	Brass			
Sealing	Hermetically Sealed (Optional)			

Absorptive Voltage Control Attenuator 1 - 2GHz



**Absolute Maximum Ratings**

Control Voltage	0 ~ 13V
RF Input power	+30 dBm

**Ordering Information**

Part No.	ECCN	Description
RFVAT0102A30	EAR99	1-2GHz Voltage Control Attenuator

**Environmental Specifications and Test Standards**

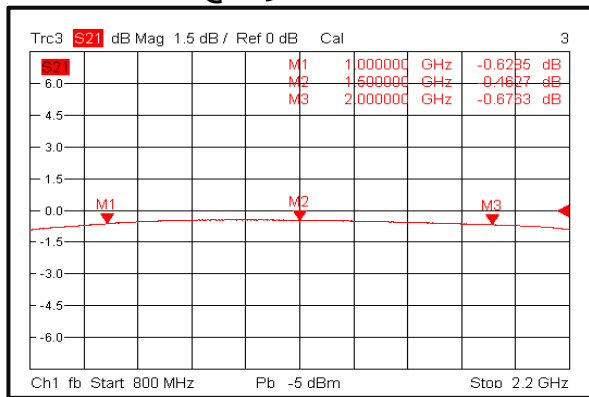
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72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

**Absorptive Voltage Control Attenuator 1 - 2GHz**

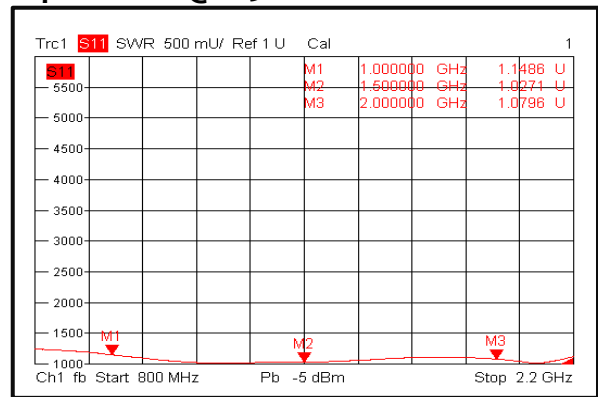


Typical Performance Plots

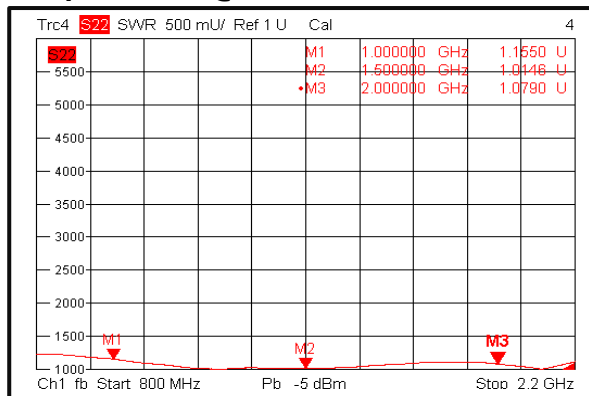
**Insertion Loss @+25°C**



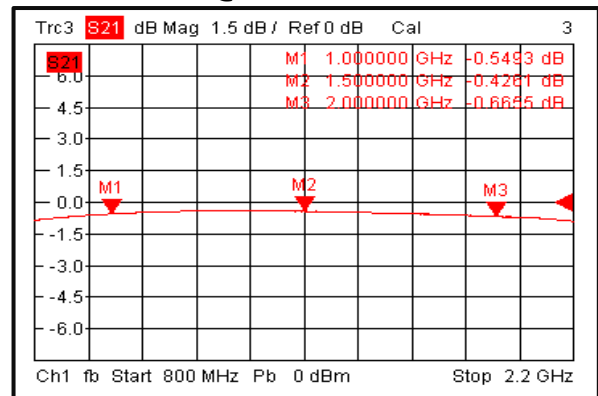
**Input VSWR @+25°C**



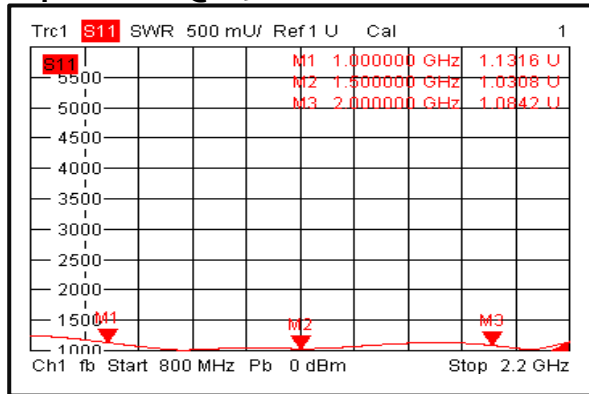
**Output VSWR @+25°C**



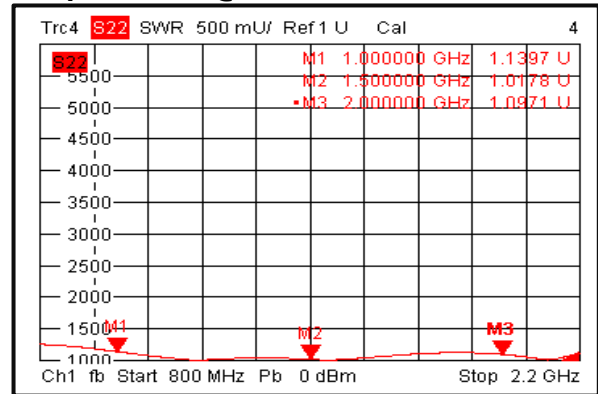
**Insertion Loss @-45°C**



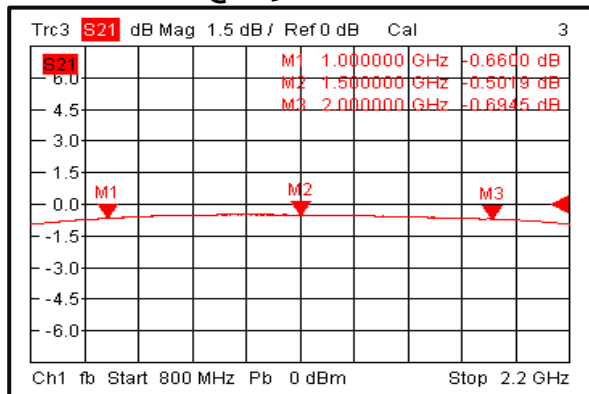
**Input VSWR @-45°C**



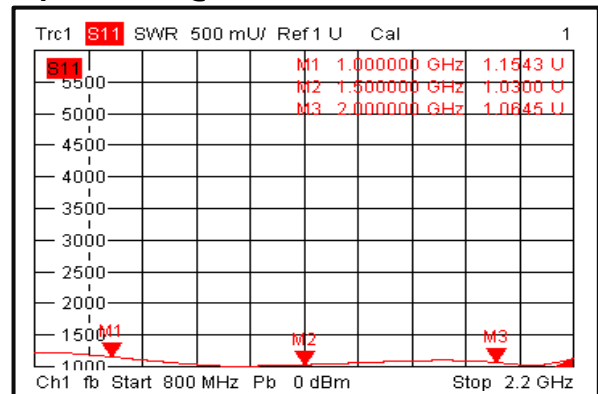
**Output VSWR @-45°C**



**Insertion Loss @+85°C**



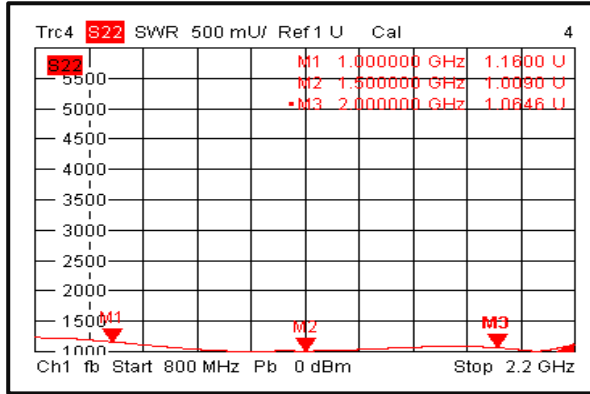
**Input VSWR @+85°C**



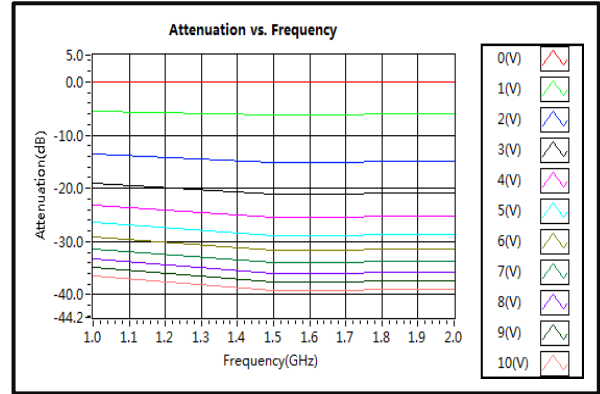
Absorptive Voltage Control Attenuator 1 - 2GHz



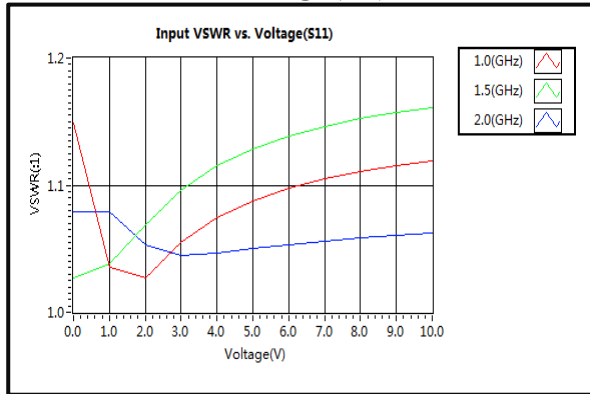
**Output VSWR @+85°C**



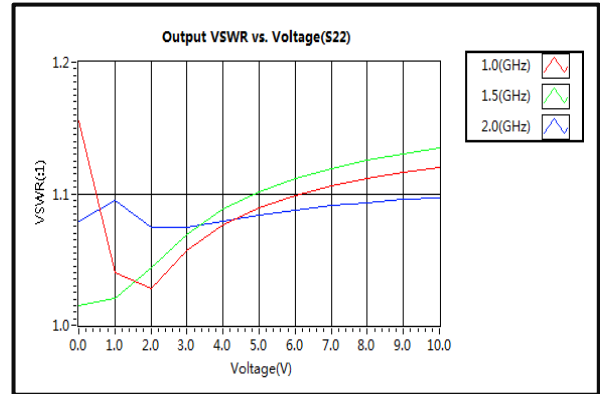
**Attenuation vs. Frequency**



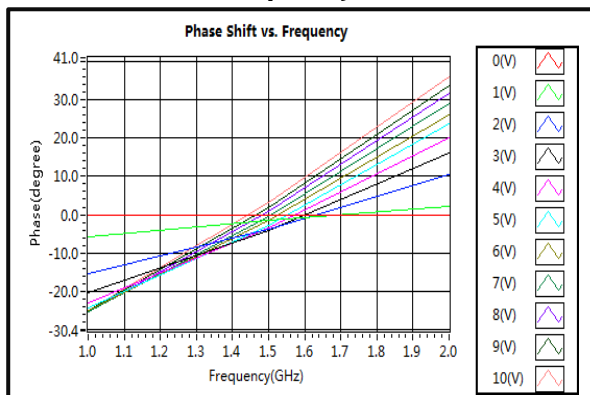
**Input VSWR vs. Voltage(s11)**



**Output VSWR vs. Voltage(s22)**



**Phase Shift vs. Frequency**

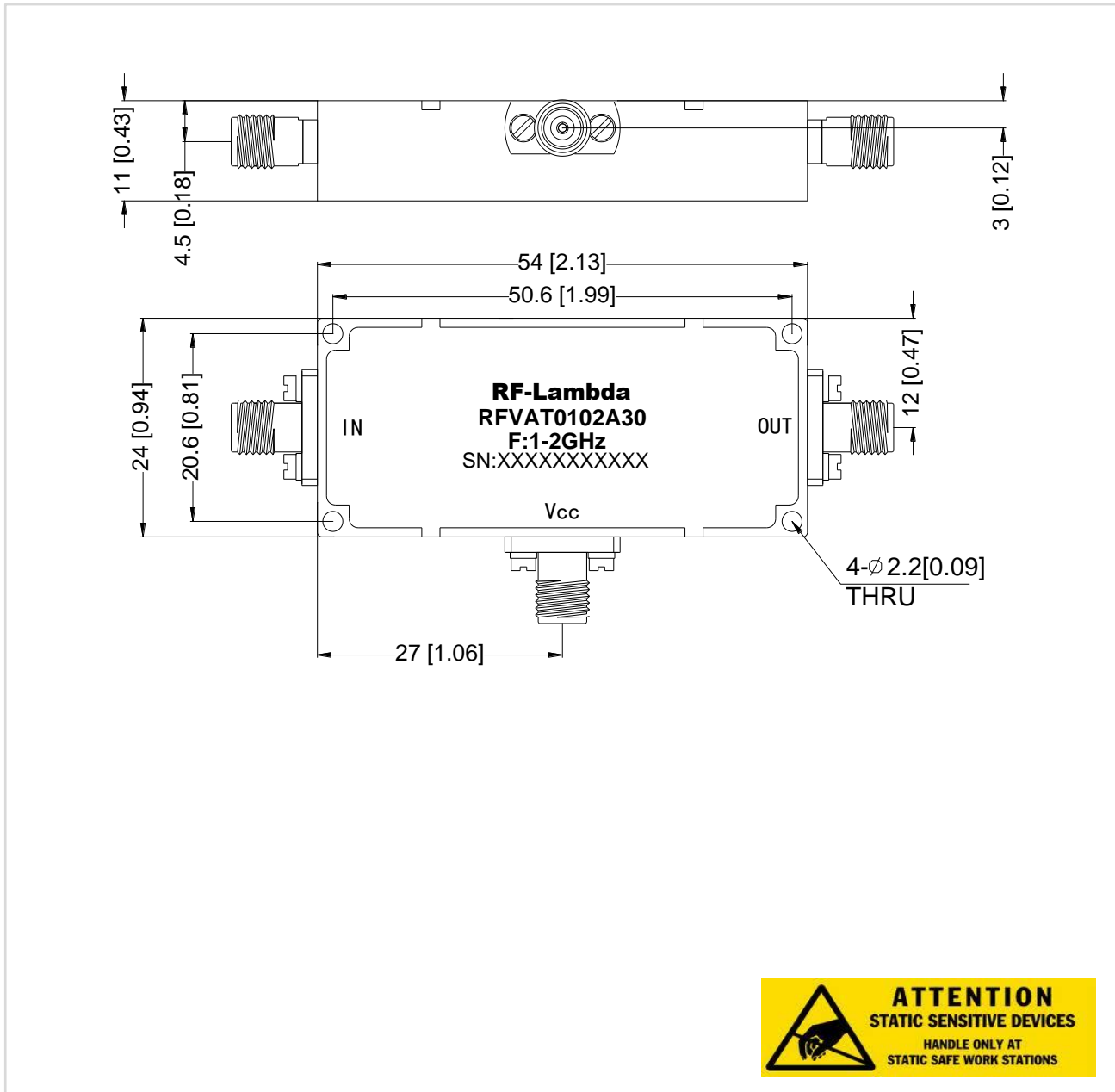


**Absorptive Voltage Control Attenuator 1 - 2GHz**



**Outline Drawing:**

All Dimensions in mm [inches]



**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.

**Absorptive Voltage Control Attenuator 1 - 2GHz**