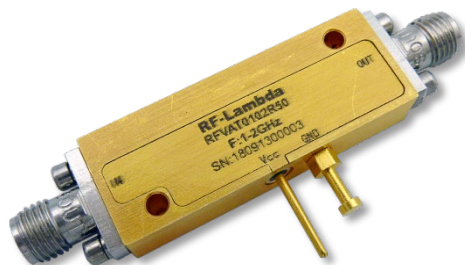


Reflective Voltage Control Attenuator 1 - 2GHz



Features

- Wide Band Operation 1-2GHz
- Wide Attenuation Range 50dB
- Reflective Topology
- Single Control Operation

Typical Applications

- Wireless Infrastructure
- Military and Aerospace
- Test and Measurement

Electrical Specifications, TA = +25° C

Description	PN: RFVAT0102R50			
	Reflective Voltage Attenuator			
Parameters	Min.	Typ.	Max.	Units
Frequency Range	1-2			GHz
Attenuation Range	50			dB
Insertion Loss		0.7	0.8	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Input VSWR		1.2	1.4	: 1
Output VSWR		1.2	1.4	: 1
0.1dB Compression Point(Po.1dB)			30	dBm
Input Ip3		45		dBm
Control Voltage	0	10		V
Switching Speed		10		us
current	40 Max.			mA
Weight	0.5 Max.			Ounces
Impedance	50			Ω
Input / Output Connectors	SMA-Female			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

Reflective Voltage Control Attenuator 1 - 2GHz

Absolute Maximum Ratings

Control Voltage	0 ~ 13V
RF Input power	+32dBm

Ordering Information

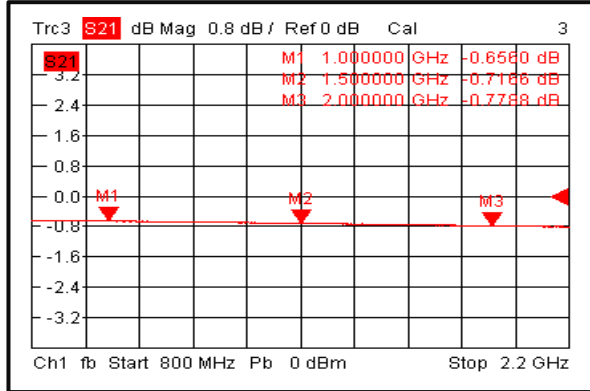
Part No.	Description
RFVAT0102R50	1-2GHz Voltage Control Attenuator

Environmental Specifications and Test Standards

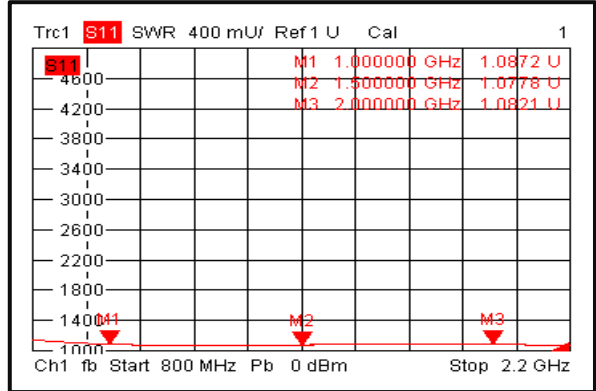
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
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 (For Hermetically Sealed Units)

Typical Performance Plots

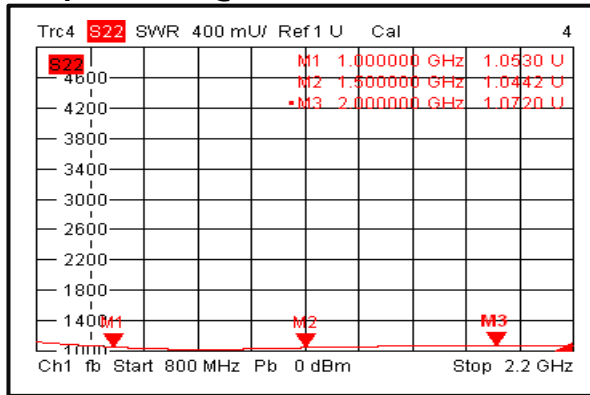
Insertion Loss @+25°C



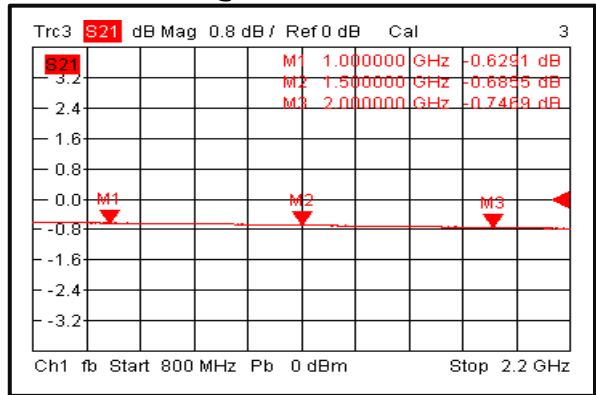
Input VSWR @+25°C



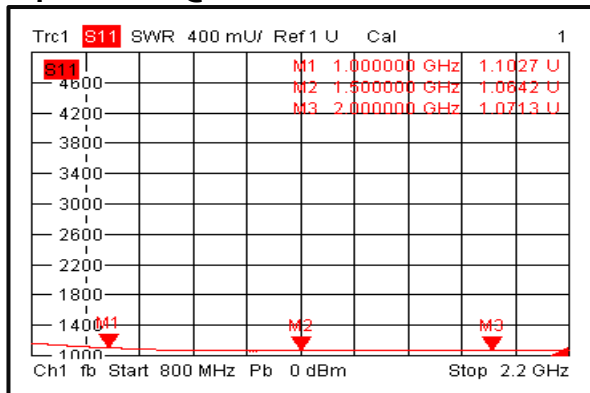
Output VSWR @+25°C



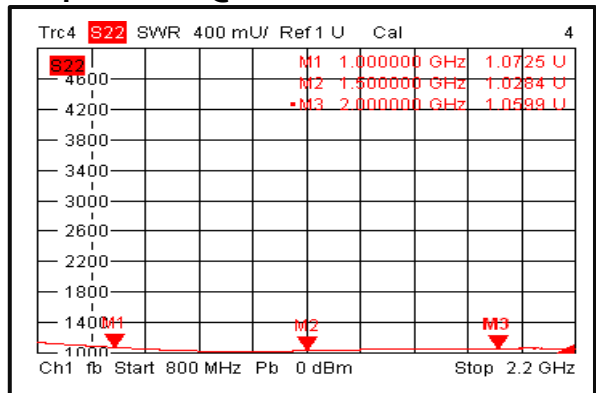
Insertion Loss @-40°C



Input VSWR @-40°C

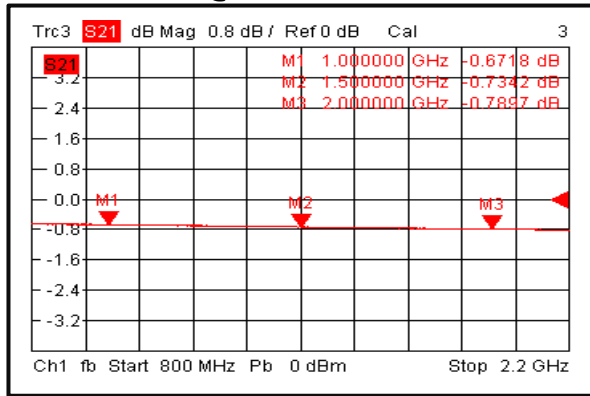


Output VSWR @-40°C

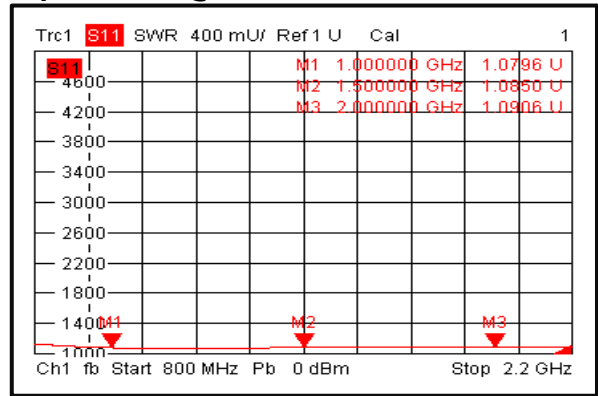


Reflective Voltage Control Attenuator 1 - 2GHz

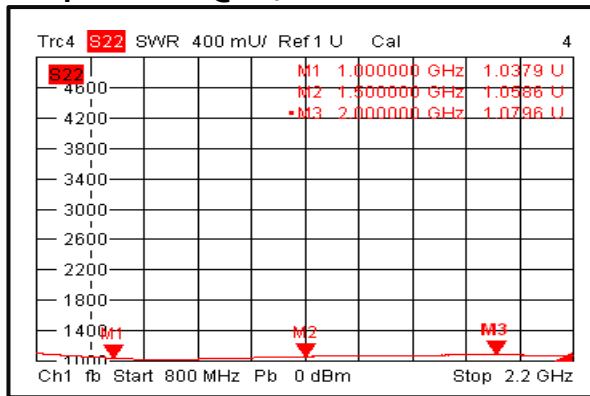
Insertion Loss@+85°C



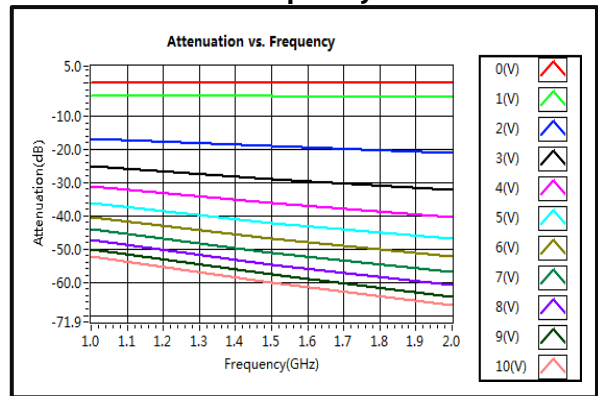
Input VSWR @+85°C



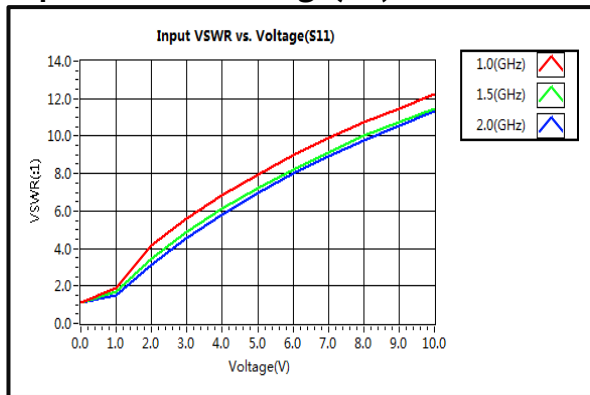
Output VSWR @+85°C



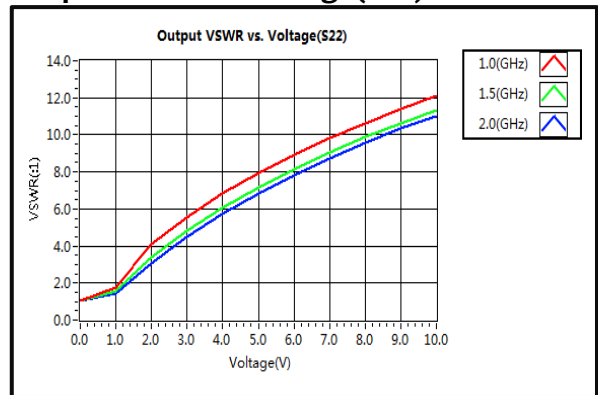
Attenuation vs. Frequency



Input VSWR vs. Voltage(S11)

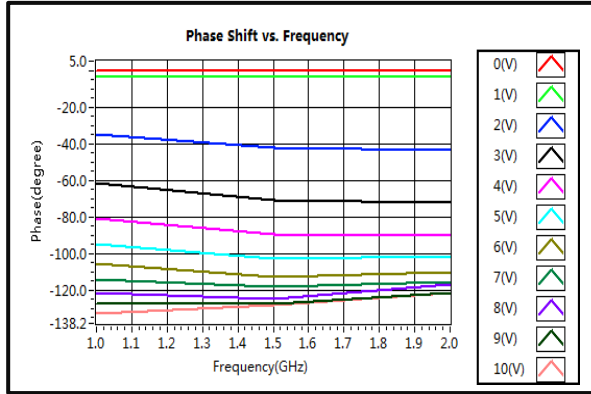


Output VSWR vs. Voltage(S22)

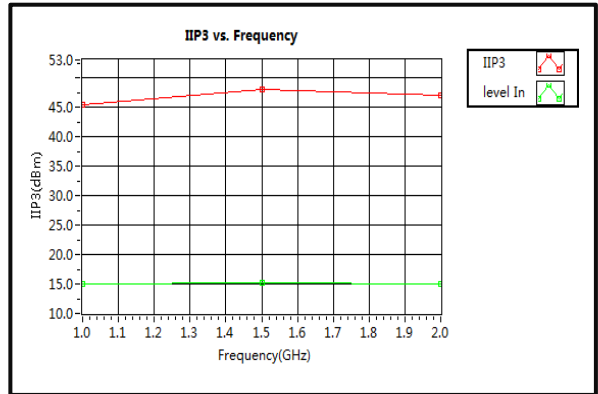


Reflective Voltage Control Attenuator 1 - 2GHz

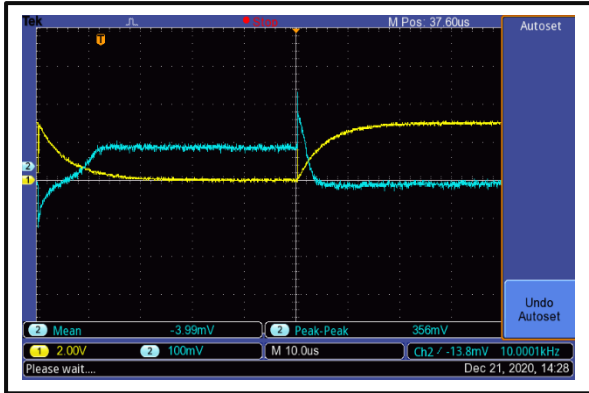
Phase Shift vs. Frequency



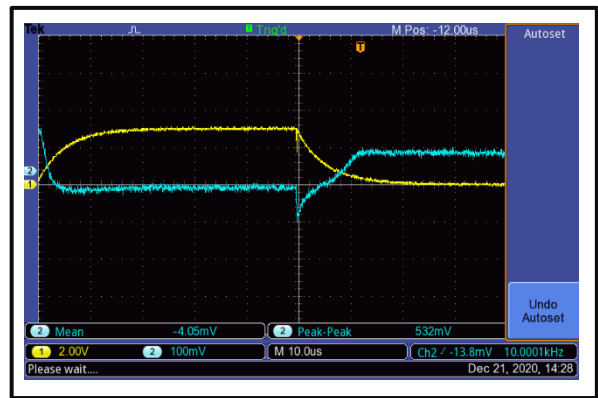
IIP3



Speed



Speed

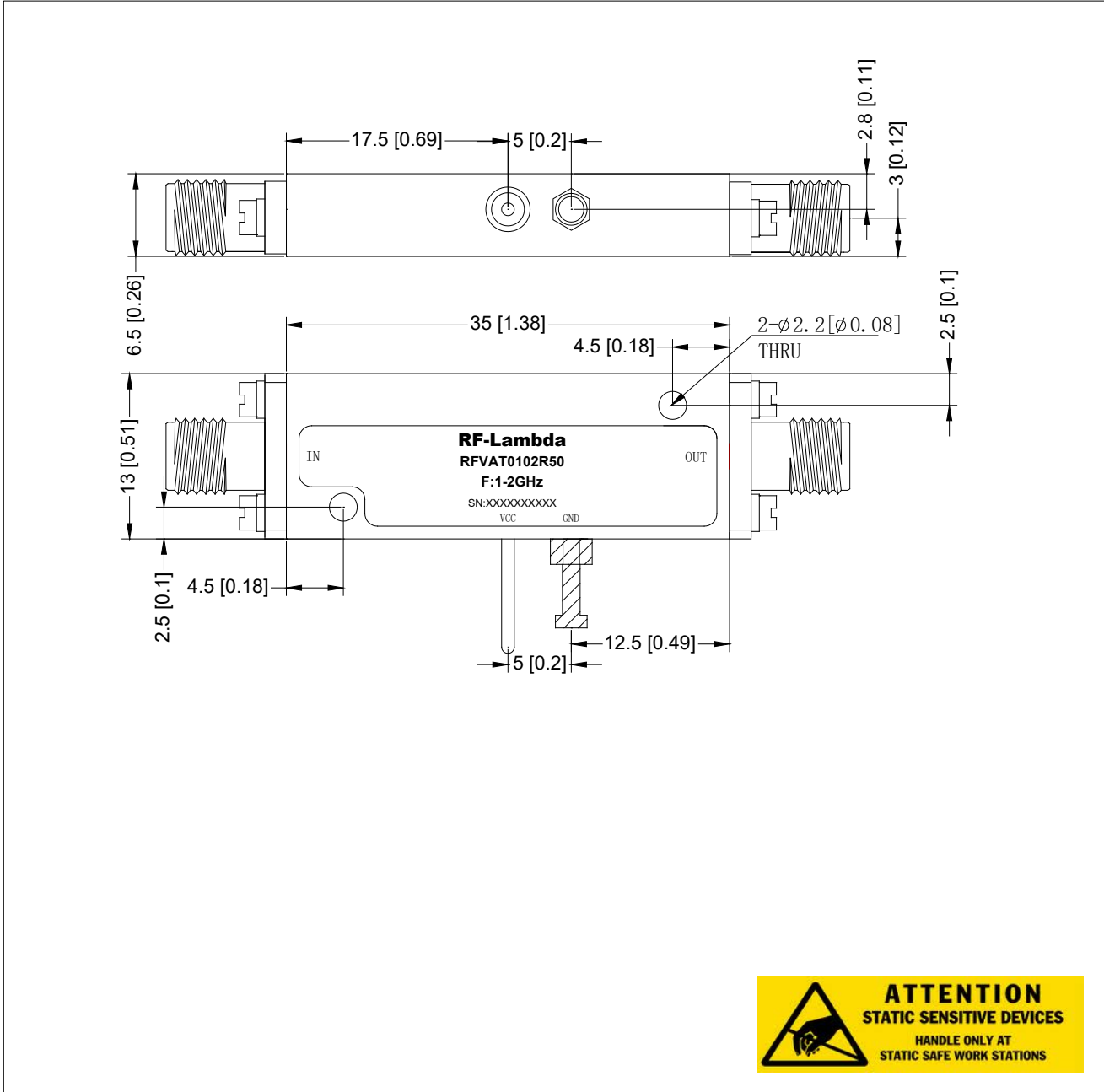


Reflective Voltage Control Attenuator 1 - 2GHz

Outline Drawing:

All Dimensions in mm [inches]

Housing Tolerances ± 0.1 [0.004]



Reflective Voltage Control Attenuator 1 - 2GHz

Important Notice

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