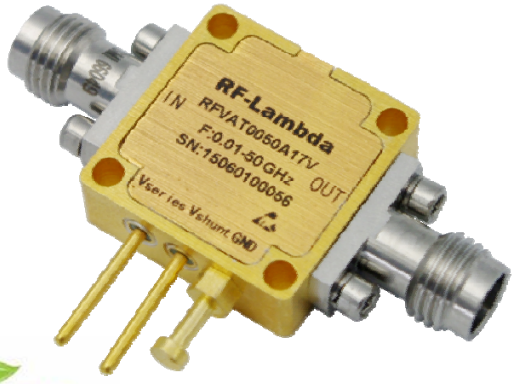
Absorptive Voltage Control Attenuator 0.01-50GHz



RoHS Compliant

Features

- Ultra Wide Band Operation 0.01-50GHz
- Wide Attenuation Range 17dB
- Absorptive Topology
- Double Negative Control Operation
- Customization available upon request

Electrical Specifications, TA = +25 °C

Description	PN: RFVAT0050A17V									
	Absorptive Voltage Attenuator									
Parameters	Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	0.01 ~ 18			18~ 34			34~50			GHz
Attenuation Range		17			17			18		dB
Insertion Loss		3	3.5		3.5	4		5	5.5	dB
Insertion Loss Temperature Coefficient		0.01			0.01			0.01		dB/°C
Input VSWR		1.6	2		2	2.5		2.5	2.8	ratio
Output VSWR		1.6	2		1.6	2		1.6	2	ratio
Input Power for 1 dB Compression		27			27			27		dBm
IM3		30			30			30		dBc
Weight	1.2									ounces
Impedance	50									Ω
current	20									mA
Input /Output Connector	2.4mm-Female(Standard)									
Finishing	Gold plating									
Material	Aluminum									
Seal	Hermetically Sealed (optional)									

Absorptive Voltage Control Attenuator 0.01-50GHz

Absorptive Voltage Control Attenuator 0.01-50GHz

Absolute Maximum Ratings

Control Voltage	-2V ~ +0.5V
RF Input power	+24dBm
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125

Environment specifications

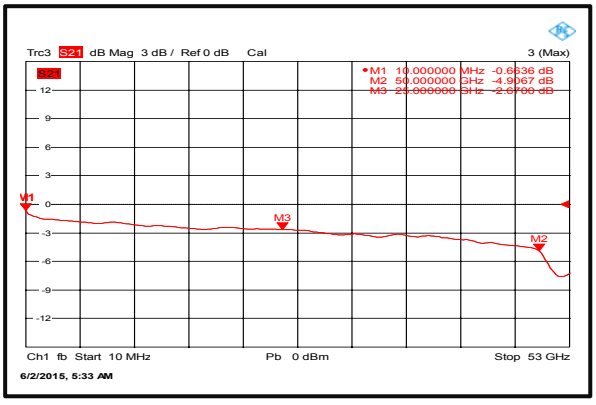
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40 deg c
Shock	20G for 11msc half sin wave,3 axis both directions

Ordering Information

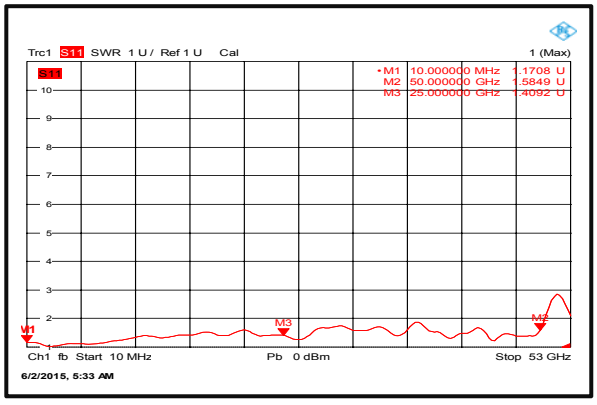
Part No	ECCN	Description
RFVAT0050A17V	EAR99	0.01-50GHz Voltage Control Attenuator

Typical performance plots

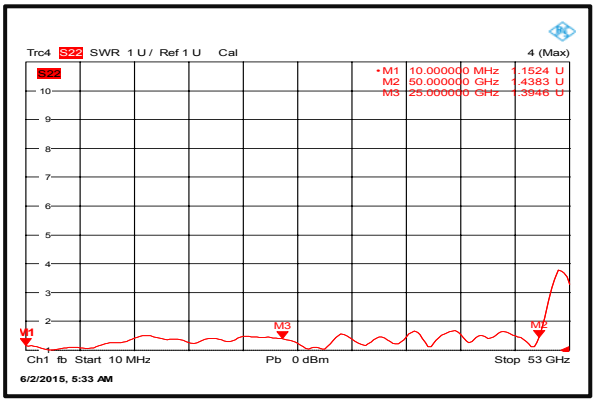
Insertion Loss



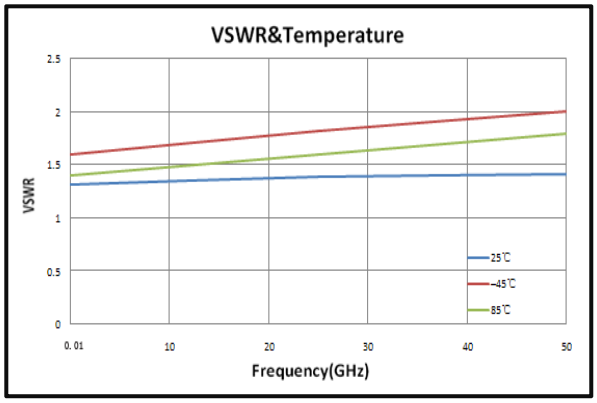
Input VSWR



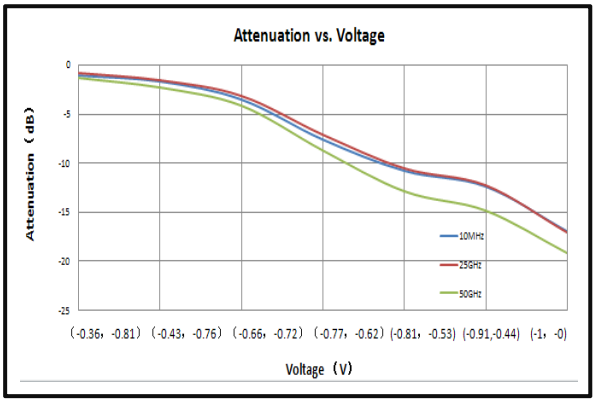
Output VSWR



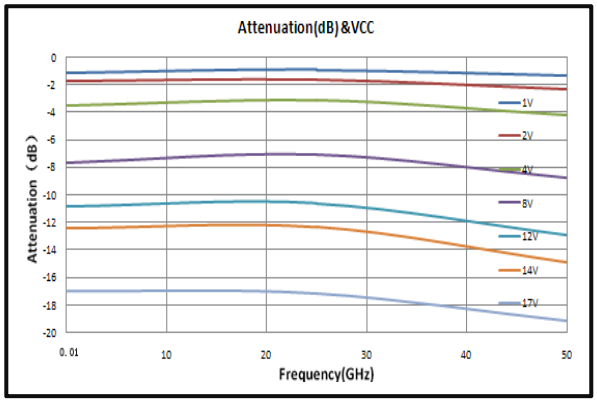
VSWR & Temperature



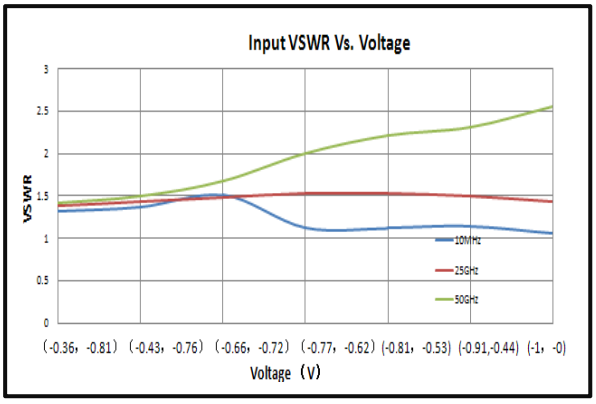
Attenuation vs. Control Voltage



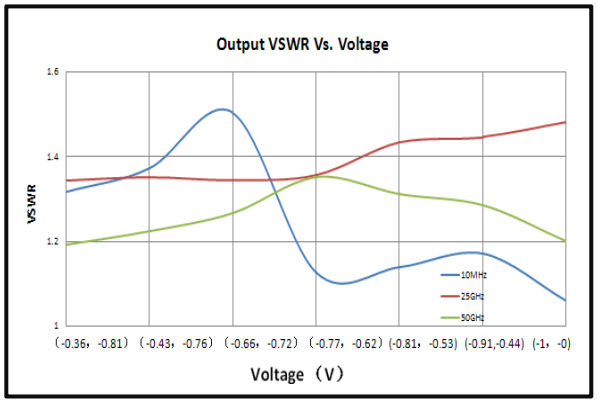
Attenuation vs. Frequency



Input VSWR vs. Voltage



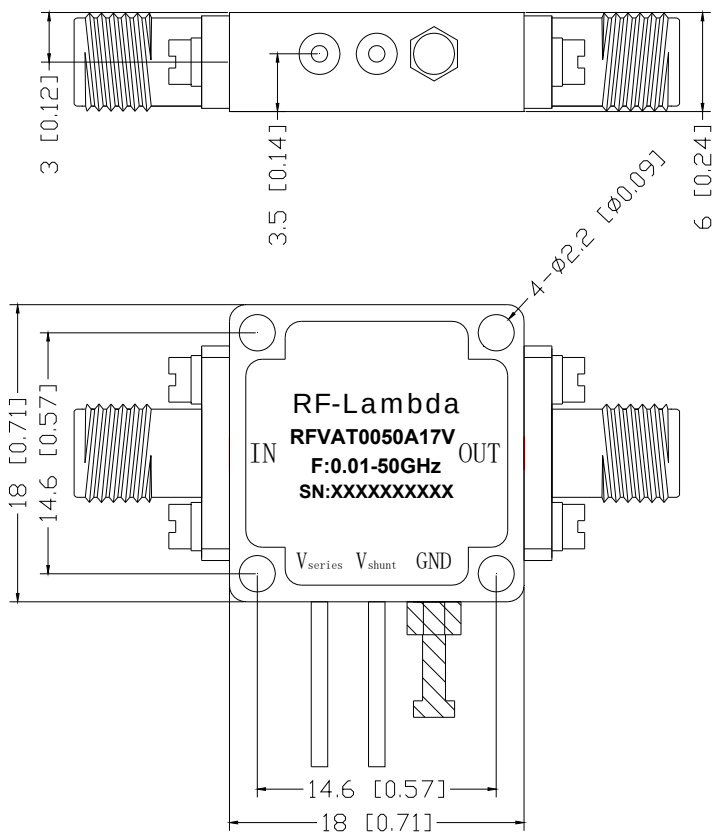
Output VSWR vs. Voltage



Absorptive Voltage Control Attenuator 0.01-50GHz

Outline Drawing:

All Dimensions in mm（inches）



Voltage Control Table

Vseries (V)	Vshunt (V)	Attenuation (dB)
0.5	-1	0
-0.36	-0.81	1
-0.43	-0.76	2
-0.66	-0.72	4
-0.77	-0.62	8
-0.81	-0.53	12
-0.91	-0.44	14
-1	0	17

Absorptive Voltage Control Attenuator 0.01-50GHz

Important Notice