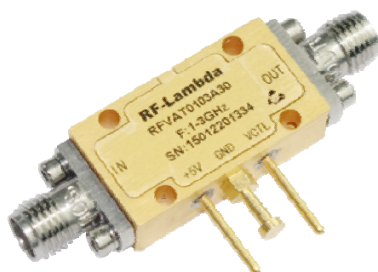




Absorptive Voltage Control Attenuator 1-3GHz



Features

- Wide Band Operation 1-3GHz
- Wide Attenuation Range 28dB
- Absorptive Topology
- Single Control Operation
- Customization available upon request



Electrical Specifications, TA = +25 °C

Description	PN: RFVAT0103A30			
	Input Port Absorptive Voltage Attenuator			
Parameters	Min	Typ.	Max	Units
Frequency Range	1 ~ 3			GHz
Attenuation Range	26	27		dB
Insertion Loss		3	3.5	dB
Insertion Loss Temperature Coefficient		0.01		dB/°C
Control Voltage	0		10	V
Input VSWR			1.6	ratio
Output VSWR			2.6	ratio
Input Power for 1 dB Compression		30		dBm
IM3		35		dBc
Weight	1.2			ounces
Impedance	50			Ω
current	2			mA
Input /Output Connector	SMA-Female/SMA-Female (Standard)			
Finishing	Gold Plating			
Material	Aluminum			
Seal	Hermetically Sealed (optional)			



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Absolute Maximum Ratings

Biasing	5.5V
Control Voltage	0 ~ 10V
RF Input power	+29dBm
Operating Temperature(°C)	-40 ~ +85
Storage Temperature(°C)	-65 ~ +150

Ordering Information

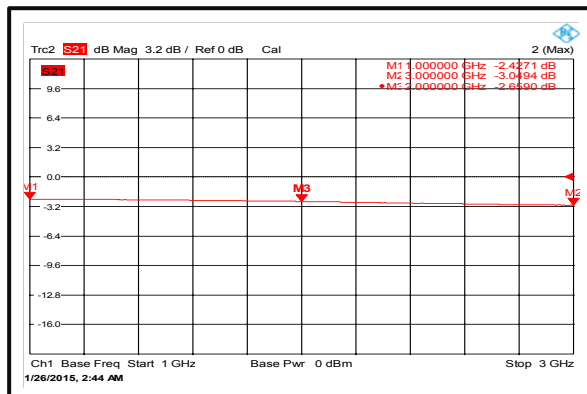
Part No	ECCN	Description
RFVAT0103A30	EAR99	1-3GHz Voltage Control Attenuator

Environment specifications

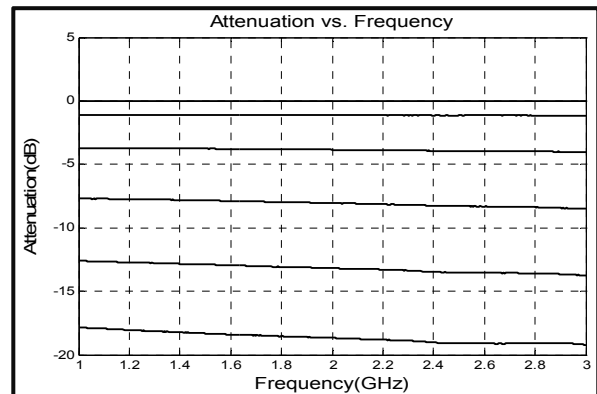
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH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

performance plots

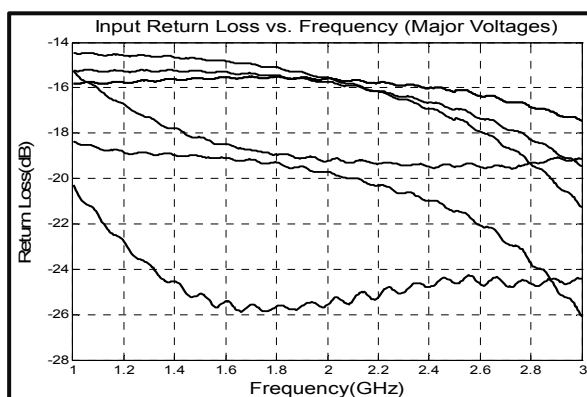
Insertion Loss



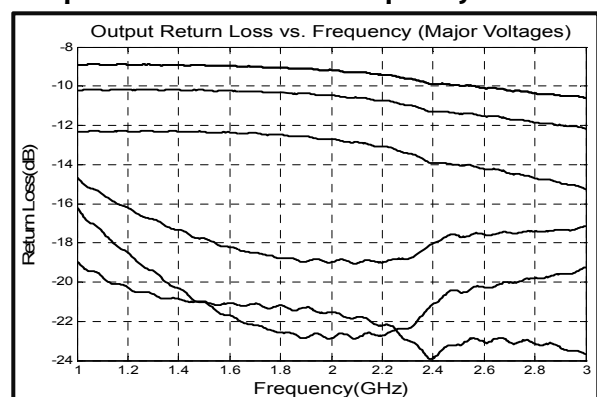
Attenuation vs. Frequency



Input Return Loss vs. Frequency



Output Return Loss vs. Frequency



Inputport Absorptive Voltage Control Attenuator 1-3GHz



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Attenuation vs. Control Voltage



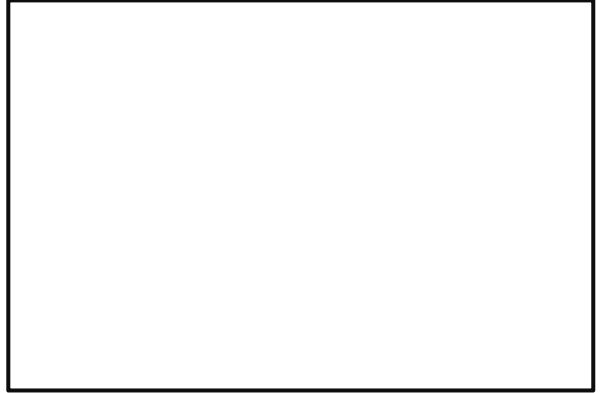
P1dB vs. Frequency



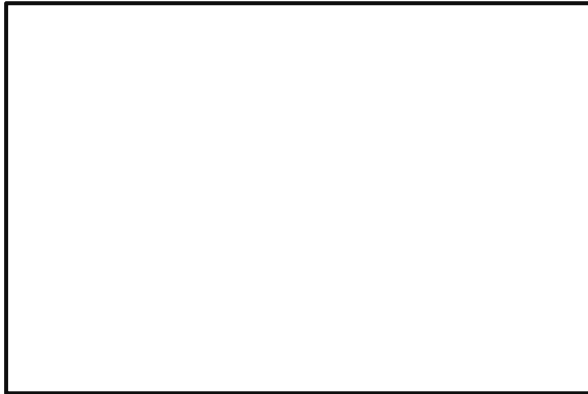
Output Third Order Intercept (IP₃)



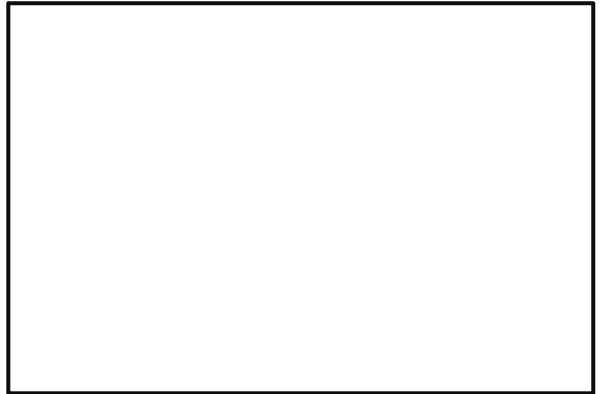
2nd Harmonic Wave output Power



3rd Harmonic Wave output Power



4th Harmonic Wave output Power



The datasheet for test 1dB



Inputport Absorptive Voltage Control Attenuator 1-3GHz



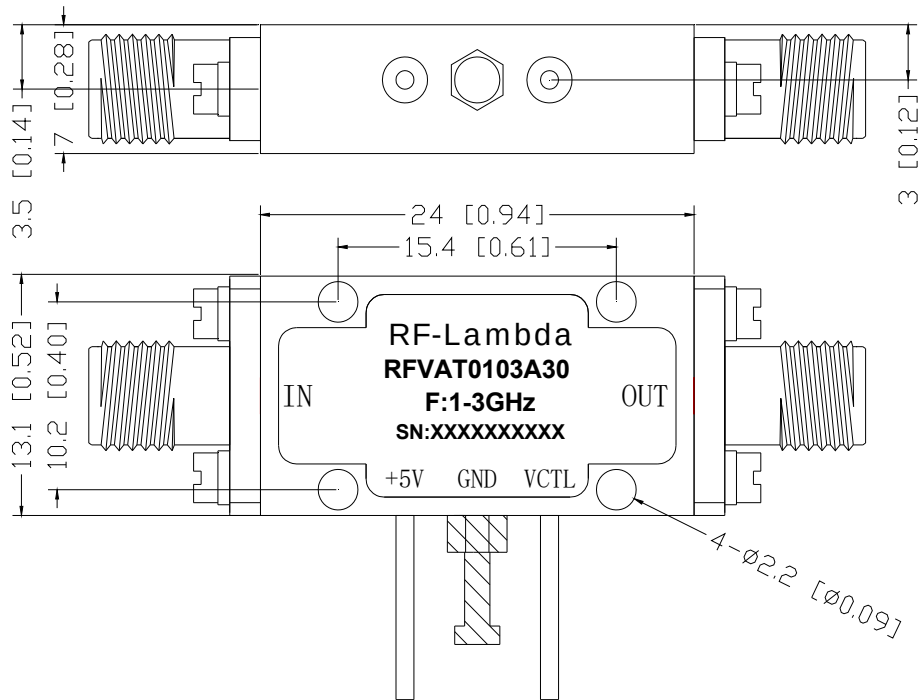
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Outline Drawing:

All Dimensions in mm (inches)



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Inputport Absorptive Voltage Control Attenuator 1-3GHz