Absorptive Voltage Control Attenuator
2 - 4GHz

RoHS Compliant

Features

- Wide Band Operation 2-4GHz
- Wide Attenuation Range 30dB
- Absorptive Topology
- Single Control Operation

Typical Applications

- Wireless Infrastructure
- Military and Aerospace
- Test and Measurement

Electrical Specifications, T_A = +25° C

Description	PN: RFVAT0204A30			
	Absorptive Voltage Attenuator			
Parameters	Min	Typ.	Max	Units
Frequency Range	2		4	GHz
Attenuation Range	30			dB
Insertion Loss		1.0	1.5	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Input VSWR		1.3	1.5	: 1
Output VSWR		1.3	1.5	: 1
Input 1dB Compression Point		27		dBm
IP3 Input		35		dBm
Switching Speed			10	us
Control Voltage	0	7		V
Weight	3.17			ounces
Impedance	50			Ω
current	25			mA
Input / Output Connectors	SMA-Female			
Control connector	SMA-Female			
Finish	Gold Plated			
Material	Brass			
Sealing	Hermetically Sealed (Optional)			

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Absolute Maximum Ratings

Control Voltage	DC ~ 10V
RF Input power	+30 dBm

Ordering Information

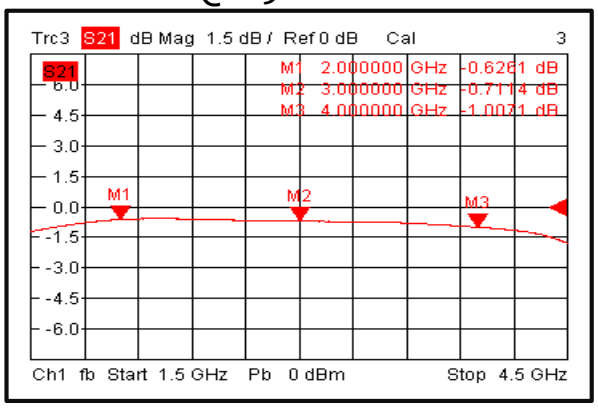
Part No.	ECCN	Description
RFVAT0204A30	EAR99	2-4GHz Voltage Control Attenuator

Environmental Specifications and Test Standards

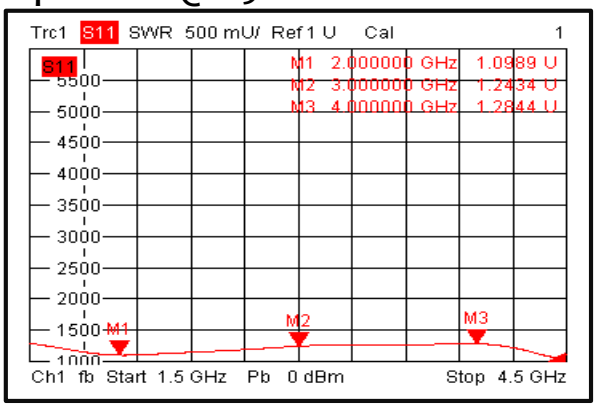
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45℃~+85℃
Storage Temperature		-55℃~+125℃
Thermal Shock		1 Hour@ -45℃ → 1 Hour @ +85℃ (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85℃ for 72 Hours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

Typical Performance Plots

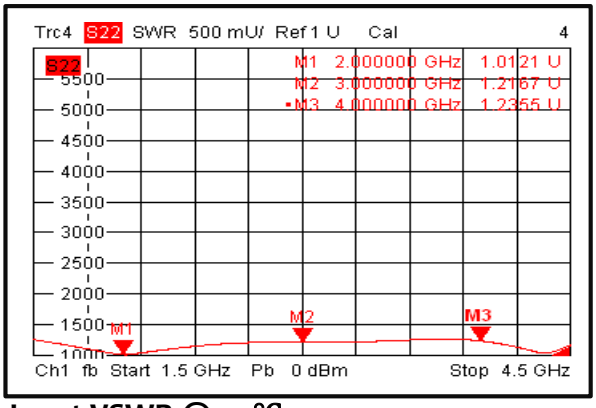
Insertion Loss@+25℃



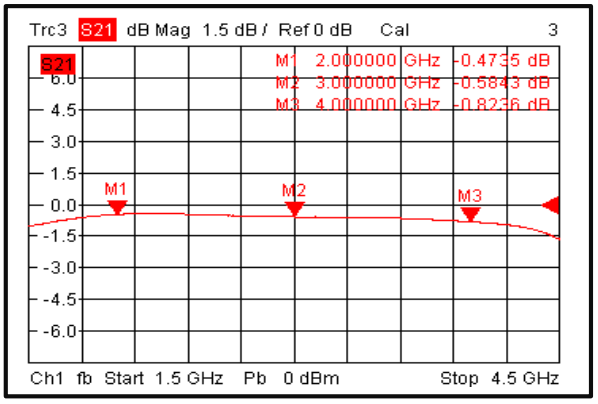
Input VSWR @+25℃



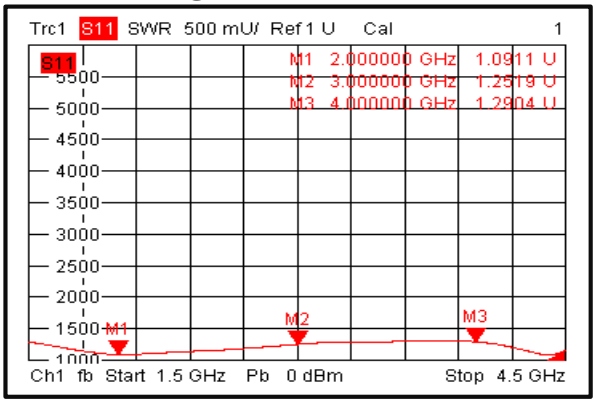
Output VSWR @+25℃



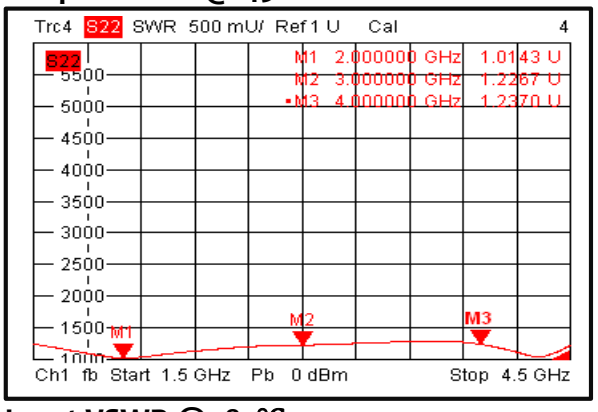
Insertion Loss @-45℃



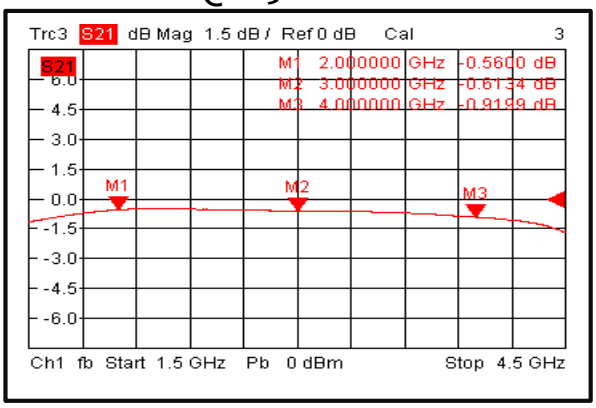
Input VSWR @-45℃



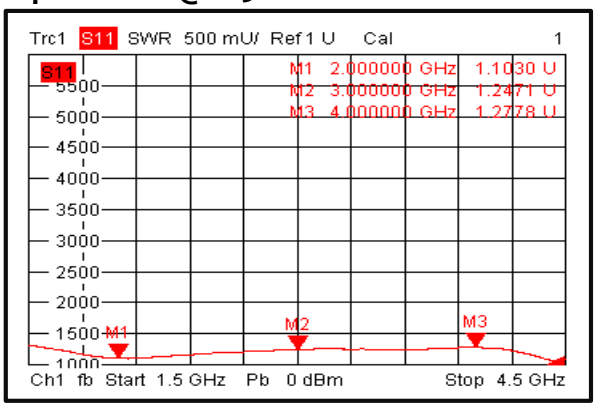
Output VSWR @-45℃



Insertion Loss@+85℃



Input VSWR @+85℃



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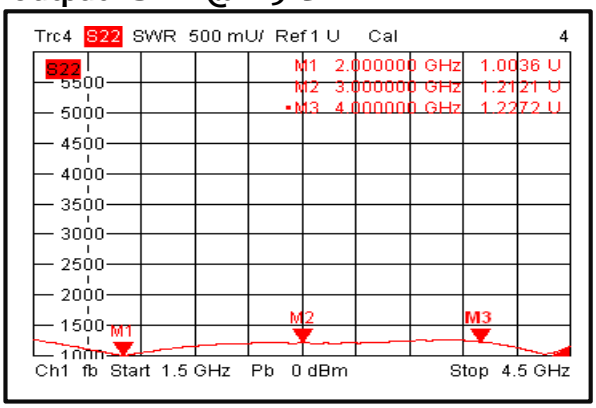
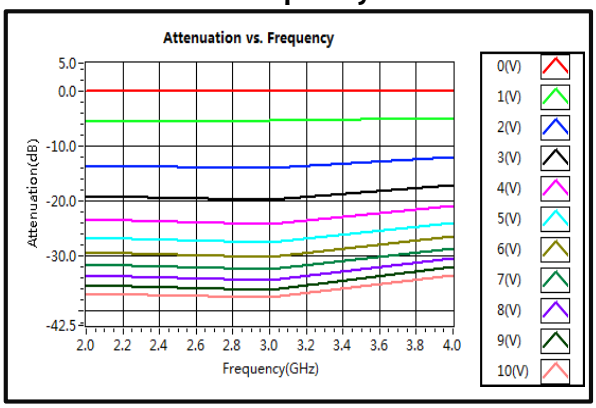
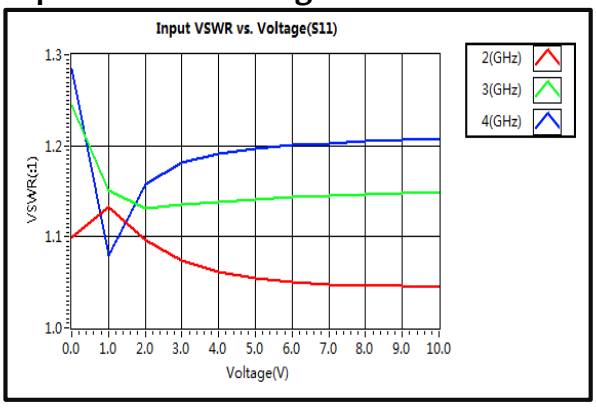
Output VSWR @+85℃



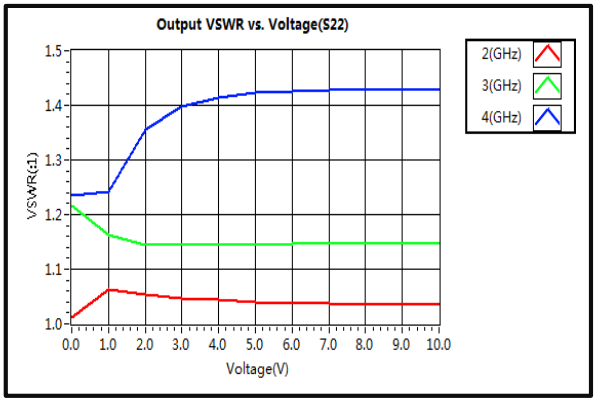
Attenuation vs. Frequency



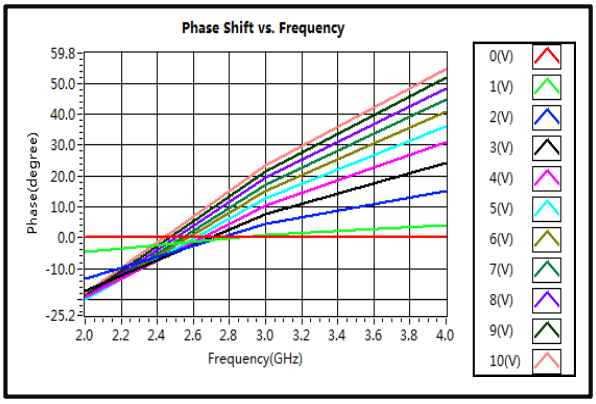
Input VSWR vs. Voltage



Output VSWR vs. Voltage



Phase Shift vs. Frequency



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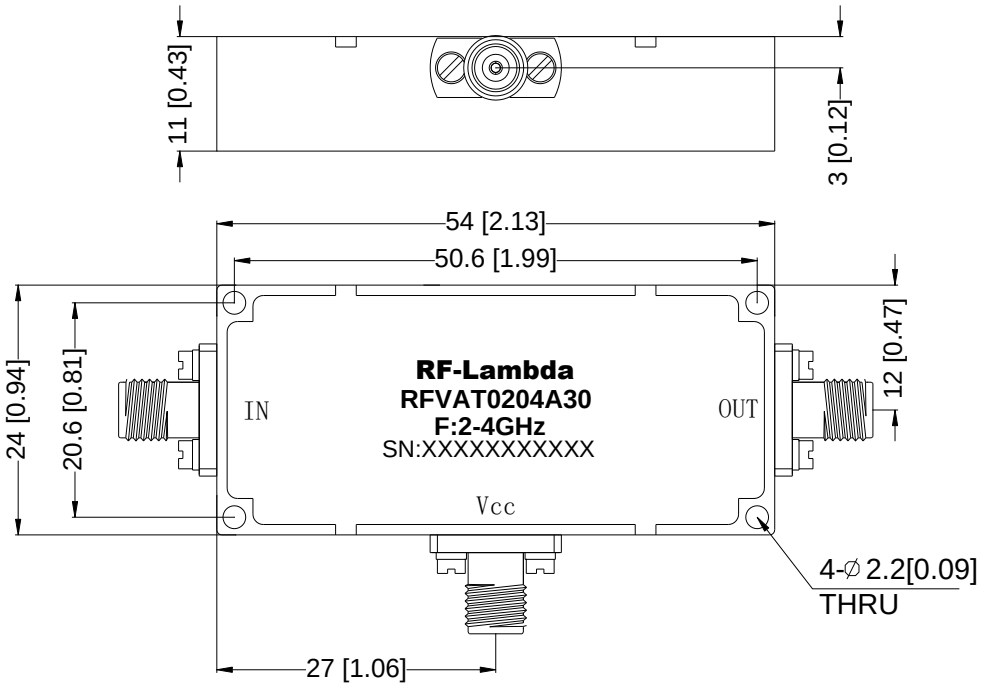
Outline Drawing:

All Dimensions in mm [inches]



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