



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFVAT0218R30

Reflective Voltage Control Attenuator 2 - 18GHz



Features

- Wide Band Operation 2-18GHz
- Wide Attenuation Range 30dB
- Reflective Topology
- Single Voltage Control Operation
- Customization available upon request

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

Description	PN: RFVAT0218R30			
	Reflective Voltage Attenuator			
Parameters	Min	Typ.	Max	Units
Frequency Range	2-18			GHz
Attenuation Range		30		dB
Insertion Loss		1.3	1.8	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Input VSWR		1.5	1.8	: 1
Output VSWR		1.5	1.8	: 1
0.1dB Compression Point(Po.1dB)		30		dBm
Input IP3		43		dBm
Switching Speed			2.5	us
Control Voltage	0	10		V
Weight	0.35			ounces
Impedance	50			Ω
current	15			mA
Input / Output Connectors	SMA - Female			
Finish	Gold Plated			
Material	Copper			
Sealing	Hermetically Sealed (Optional)			

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Absolute Maximum Ratings

Control Voltage	0 ~ 15V
RF Input power	+30dBm

Ordering Information

Part No.	ECCN	Description
RFVAT0218R30	EAR99	2-18GHz Voltage Control Attenuator

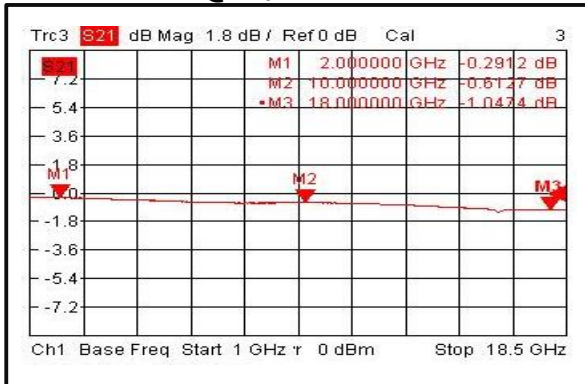
Environmental Specifications and Test Standards

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	MIL-STD-883	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)

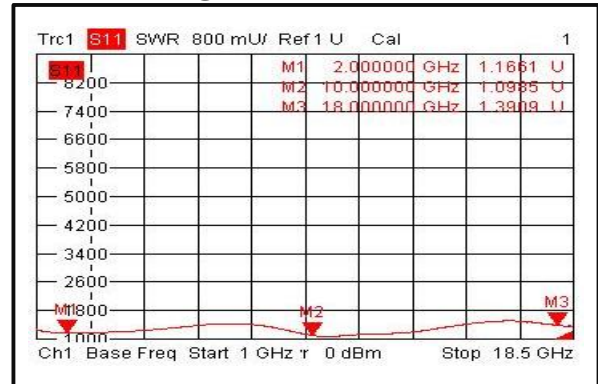


Typical Performance Plots

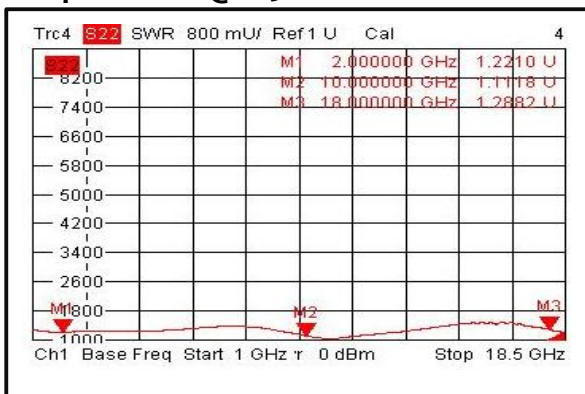
Insertion Loss@+25°C



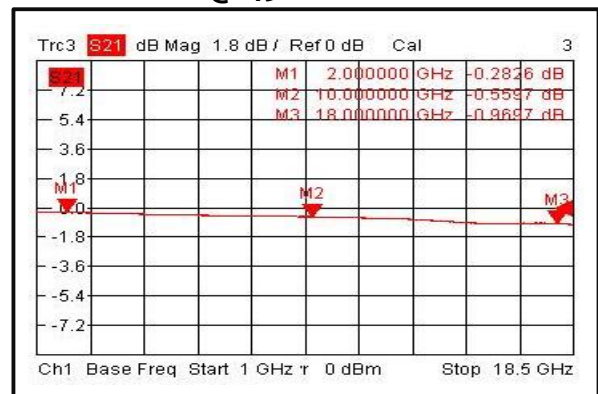
Input VSWR @+25°C



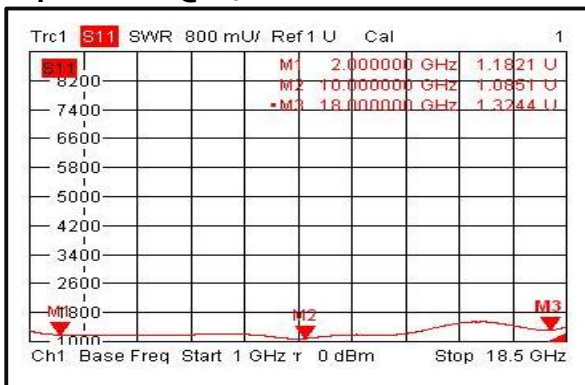
Output VSWR @+25°C



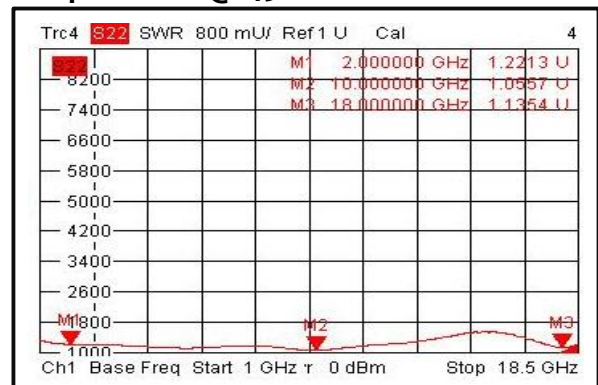
Insertion Loss@-45°C



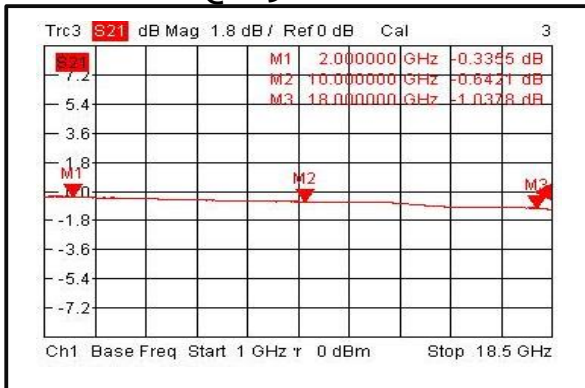
Input VSWR@-45°C



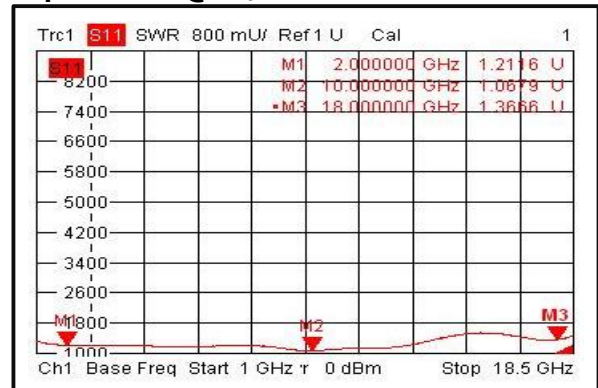
Output VSWR@-45°C



Insertion Loss@+85°C

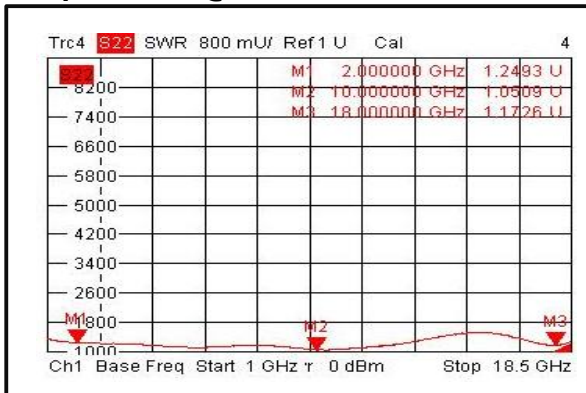


Input VSWR@+85°C

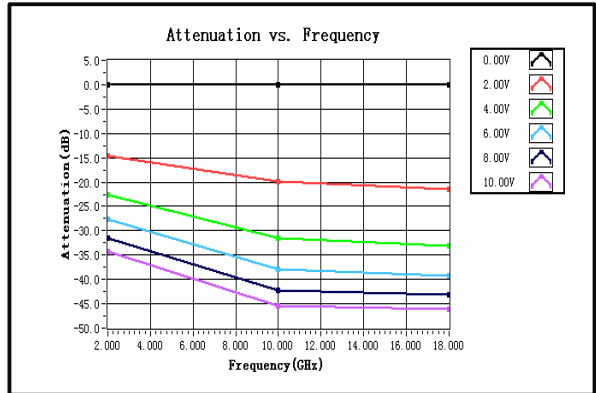




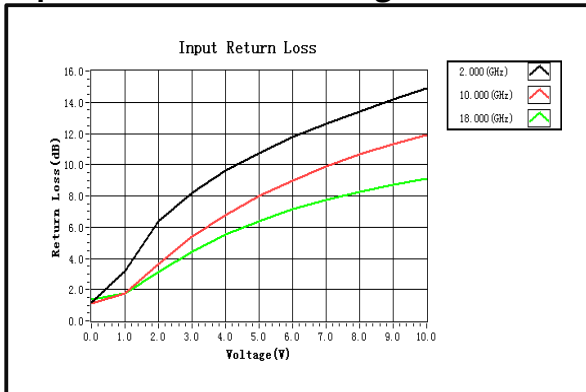
Output VSWR@+85°C



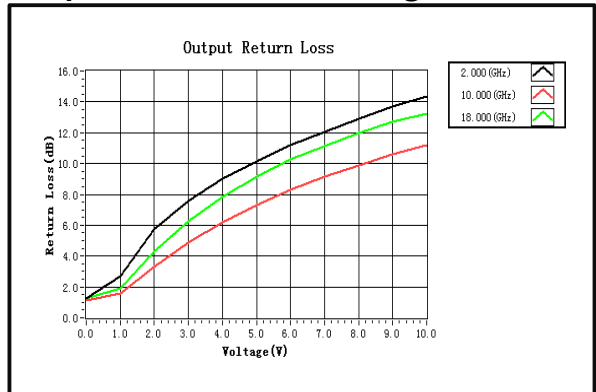
Attenuation vs. Frequency



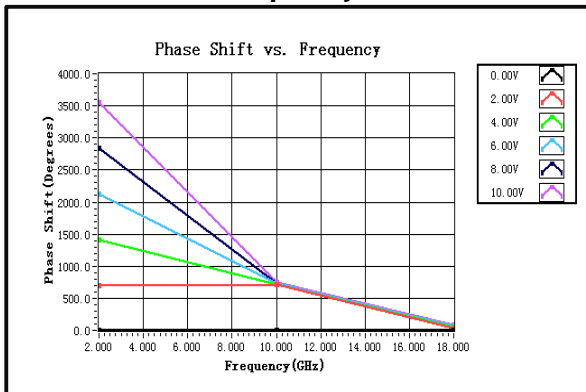
Input Return Loss vs. Voltage



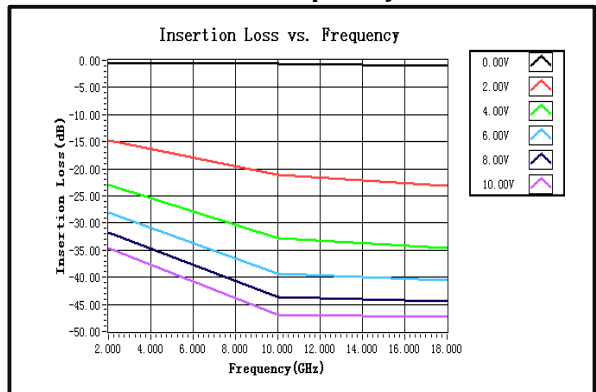
Output Return Loss vs. Voltage



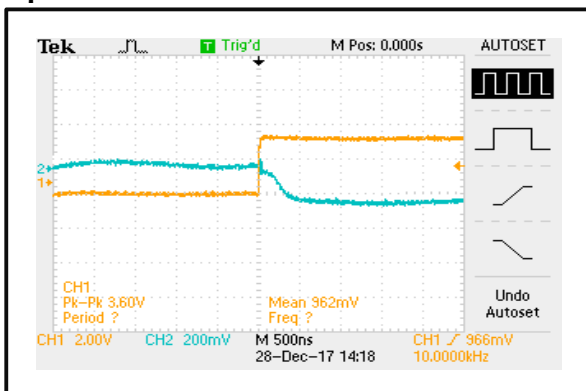
Phase Shift vs. Frequency



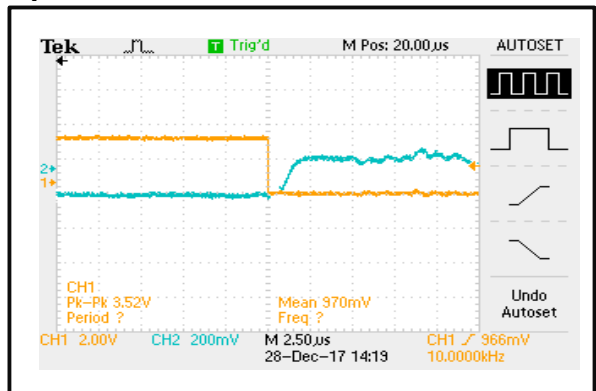
Insertion Loss vs. Frequency



Speed



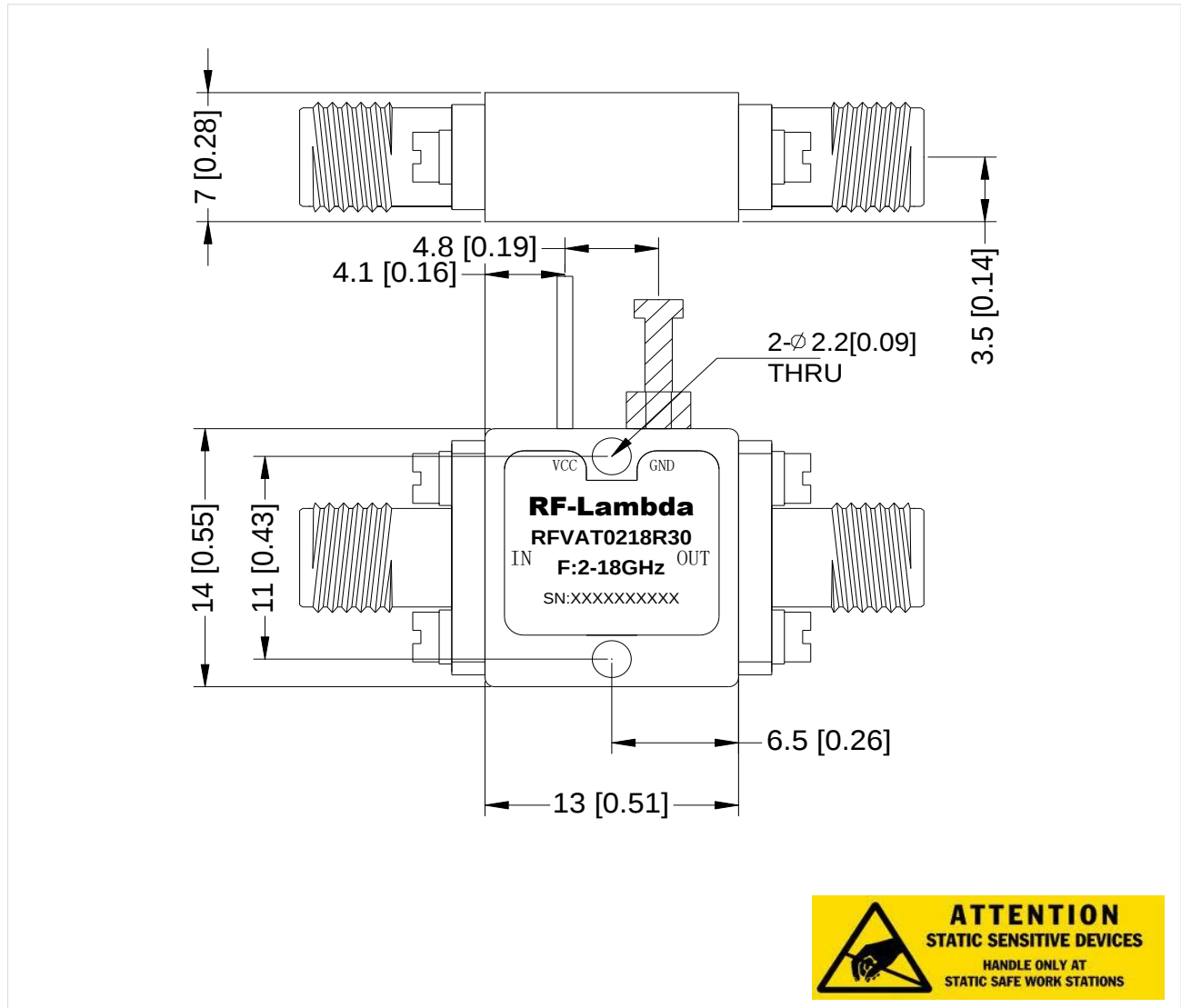
Speed





Outline Drawing:

All Dimensions in mm [inches]



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