



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFVAT0232A20

Absorptive Voltage Control Attenuator 2 - 32GHz



Features

- Wide Band Operation 2-32GHz
- Wide Attenuation Range 20dB
- Series-Shunt Absorptive Topology
- Single Control Operation

Typical Applications

- Wireless Infrastructure
- Military and Aerospace
- Test and Measurement

Electrical Specifications, TA = +25 °C

Description	PN:RFVAT0232A20									
	Absorptive Voltage Attenuator									
Parameters	Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	2-12			12-22			22-32			GHz
Attenuation Range		20			20			20		dB
Insertion Loss		2.2	3.0		2.8	3.5		3.8	4.2	dB
Insertion Loss Temperature Coefficient		0.05			0.05			0.05		dB/°C
Input VSWR		1.8	2.2		1.8	2.2		1.8	2.2	: 1
Output VSWR		1.8	2.2		1.8	2.2		1.8	2.2	: 1
0.1dB Compression Point(Po.1dB)			30			30			30	dBm
Input Ip3	22			22			22			dBm
Control Voltage (V series)	0-1.5									V
Control Voltage (V shunt)	1.5 (Fixed)									V
Weight	0.35									Ounces
Impedance	50									Ω
Current	5									mA
Input / Output Connectors	2.92mm-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									

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Absolute Maximum Ratings

Control Voltage	1.5V/0~1.5V
RF Input power	+30dBm

Ordering Information

Part No.	ECCN	Description
RFVAT0232A20	EAR99	2-32GHz 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)

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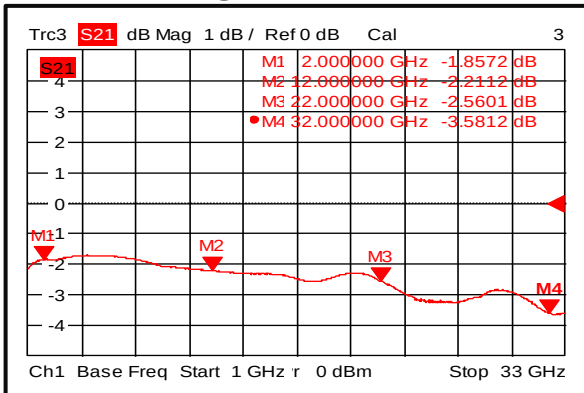
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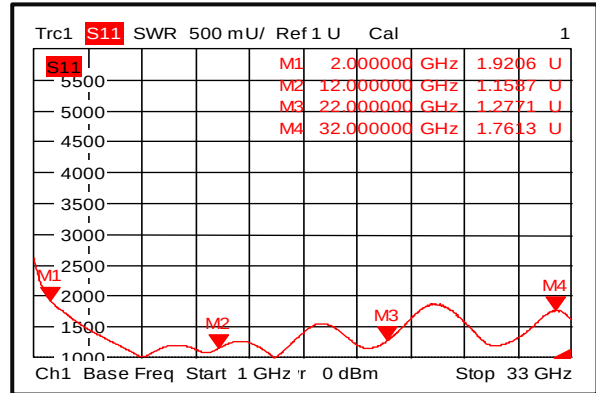
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Typical Performance Plots

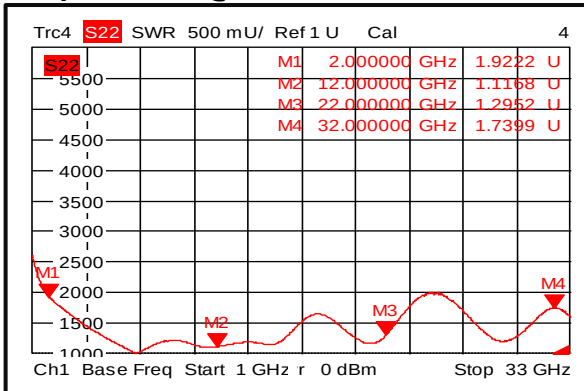
Insertion Loss @+25°C



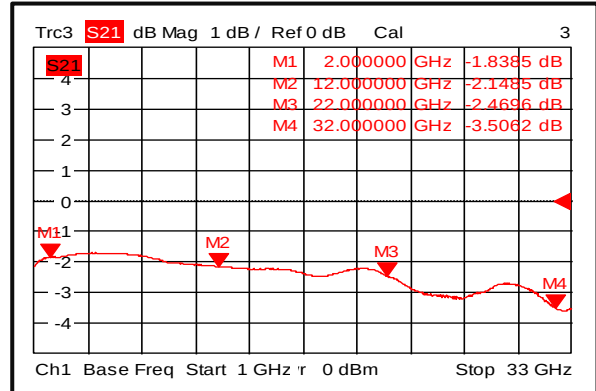
Input VSWR @+25°C



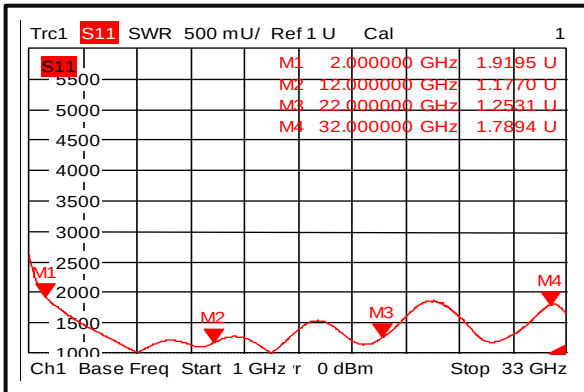
Output VSWR @+25°C



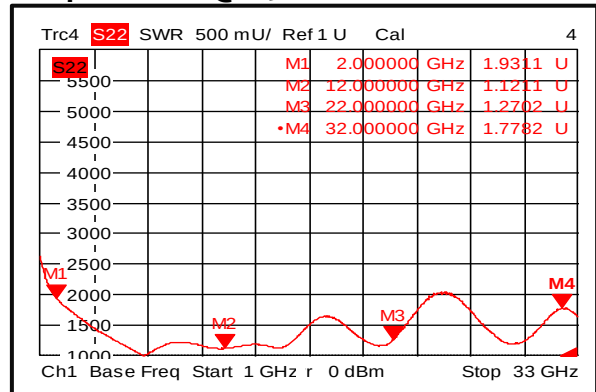
Insertion Loss @-45°C



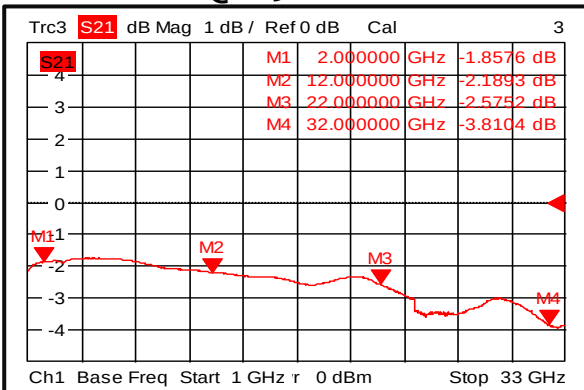
Input VSWR @-45°C



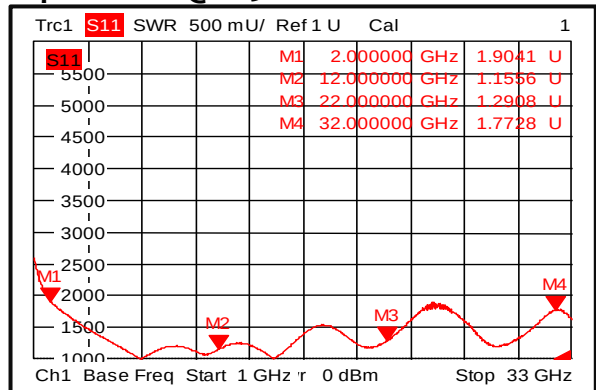
Output VSWR @-45°C



Insertion Loss @+85°C



Input VSWR @+85°C



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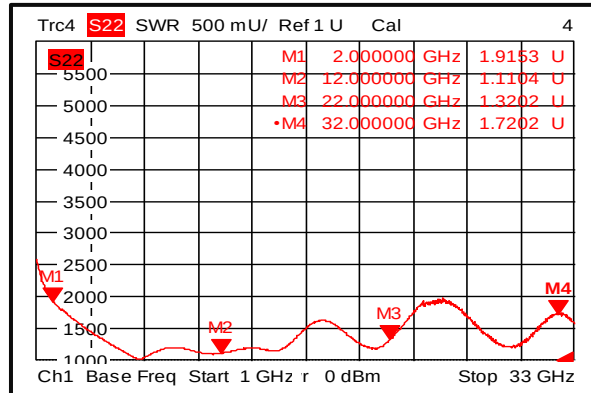


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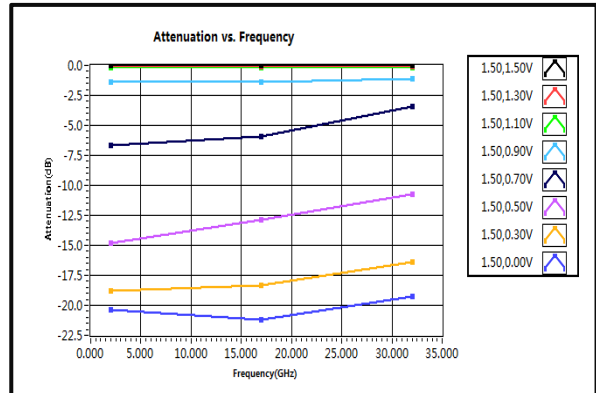
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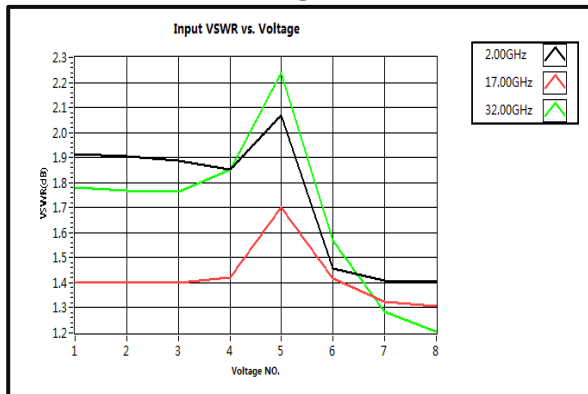
Output VSWR @+85°C



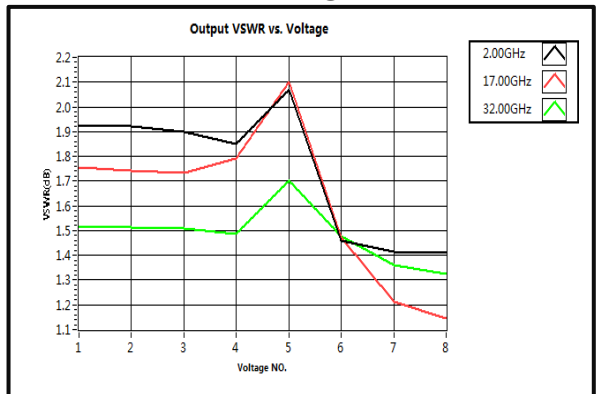
Attenuation vs. Frequency



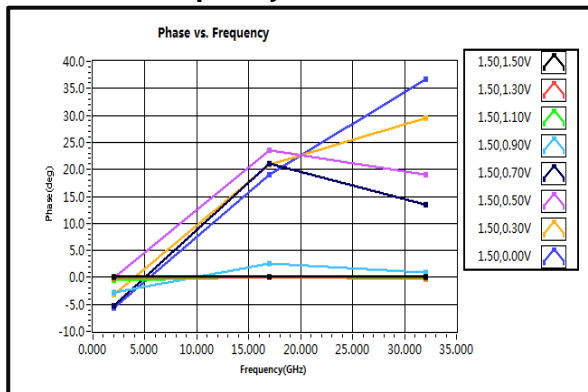
Input VSWR vs. Voltage



Output VSWR vs. Voltage



Phase vs. Frequency



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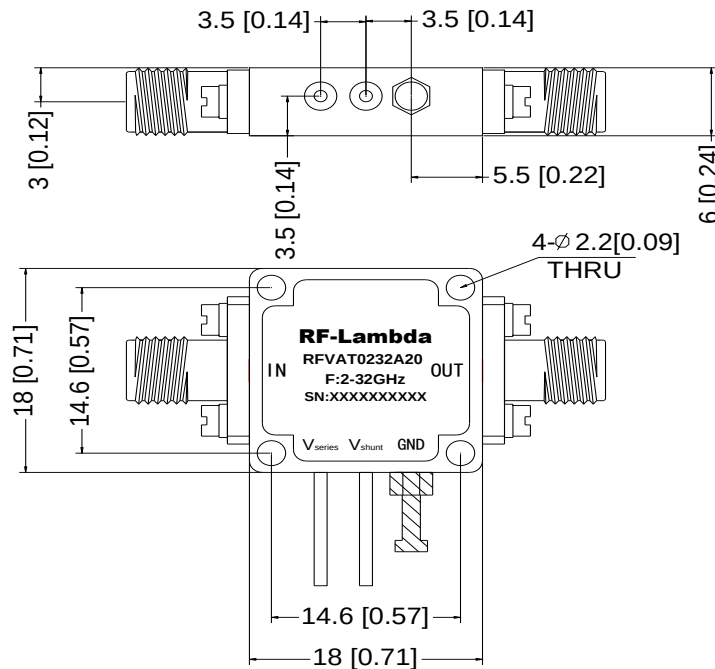
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Outline Drawing:

All Dimensions in mm [inches]



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