



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RVPT0102GBC

Voltage Control Phase Shifter 1 - 2GHz



Features

- Wide Band Operation 1-2GHz
- 360° Phase Shift
- Low Insertion Loss and Low Phase Error
- Single Control Operation
- Customization available upon request

Typical Applications

- Test and Measurement
- Military and Aerospace
- Research and Development

Electrical Specifications, TA = +25° C

Description	PN: RVPT0102GBC			
	Voltage Control Phase Shifter			
Parameters	Min	Typ.	Max	Units
Frequency Range	1 ~ 2			GHz
Phase Range	360			°
Phase Flatness			±15	°
Insertion Loss		4.5	5.5	dB
Insertion Loss Temperature Coefficient		0.16		dB/°C
Input VSWR		2.2	2.5	: 1
Output VSWR		2.2	2.5	: 1
Input 0.1dB Compression Point (Po.1dB)		25		dBm
Control Voltage	0	12		V
Current	20			mA
Weight	0.35			ounces
Impedance	50			Ω
Current Consumption	5			mA
Input / Output Connectors	SMA-Female			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

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Absolute Maximum Ratings

Control Voltage	0~15V
RF Input Power	+27dBm

Ordering Information

Part No.	ECCN	Description
RVPT0102GBC	EAR99	1-2GHz Voltage Control Phase Shifter

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)



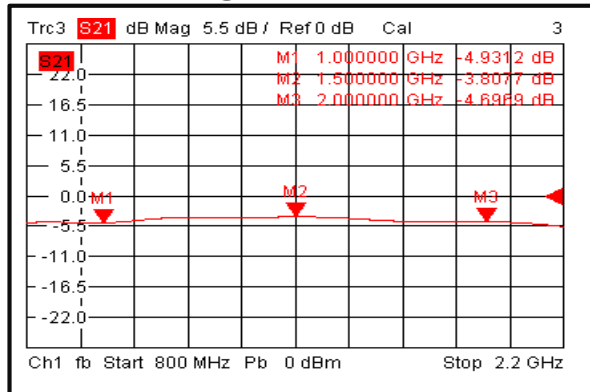
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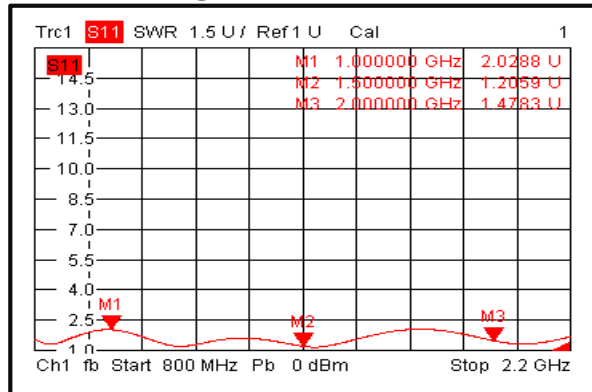
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Typical Performance Plots

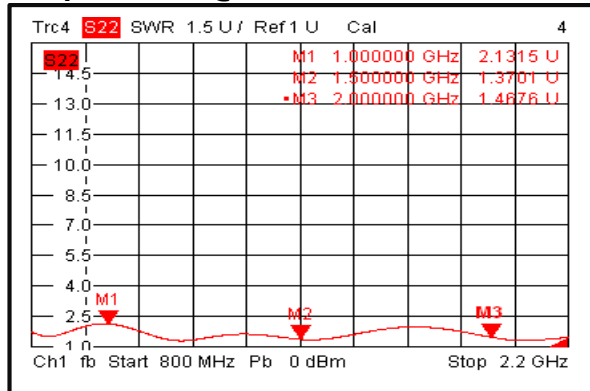
Insertion Loss @ +25°C



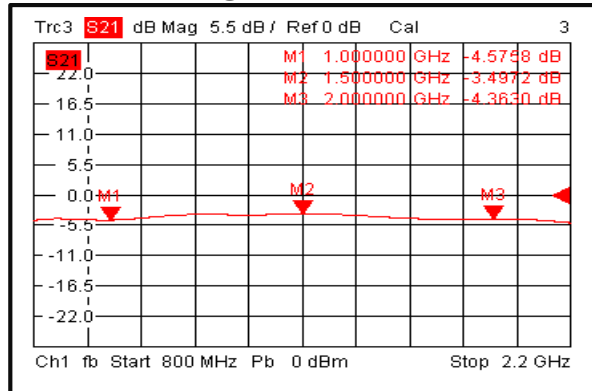
Input VSWR @ +25°C



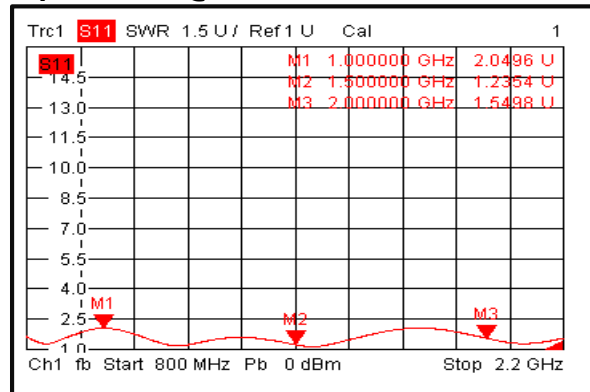
Output VSWR @ +25°C



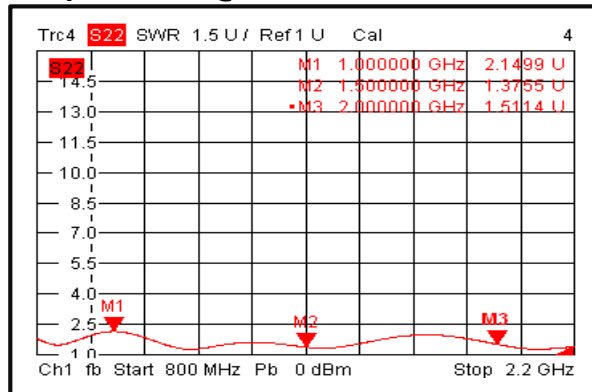
Insertion Loss @ -45°C



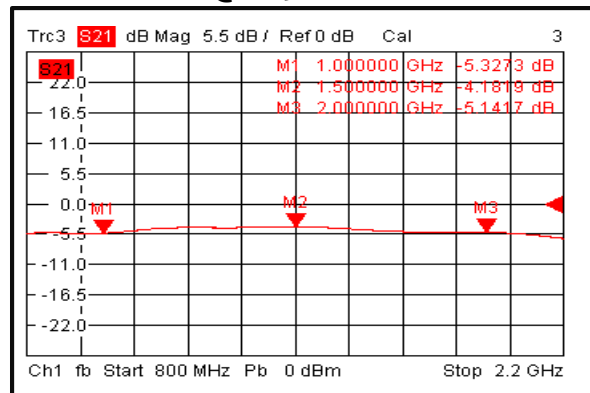
Input VSWR @ -45°C



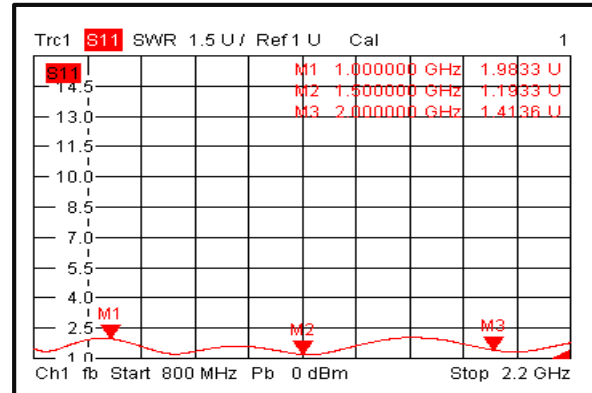
Output VSWR @ -45°C



Insertion Loss @ +85°C



Input VSWR @ +85°C



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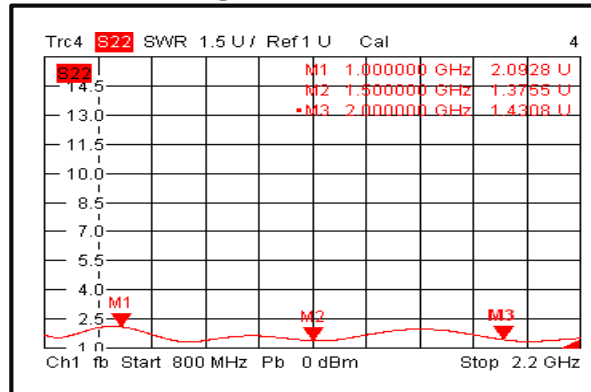


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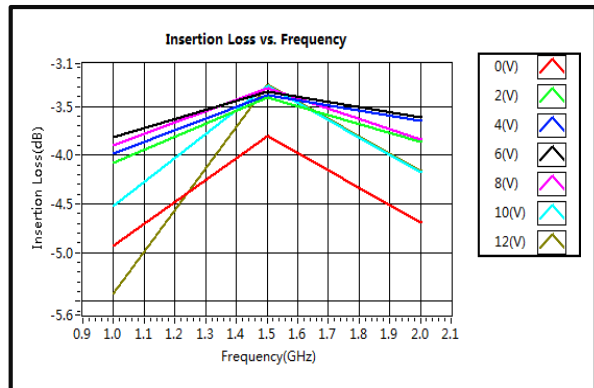
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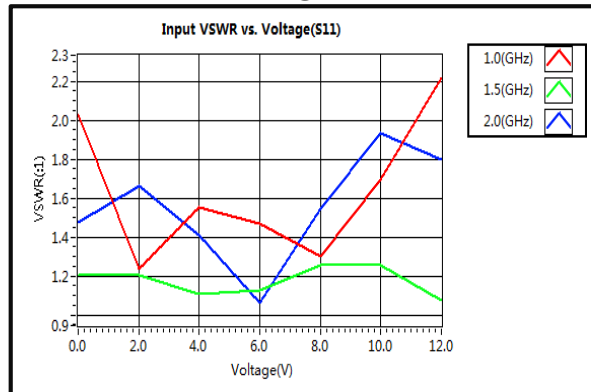
Output VSWR @ +85°C



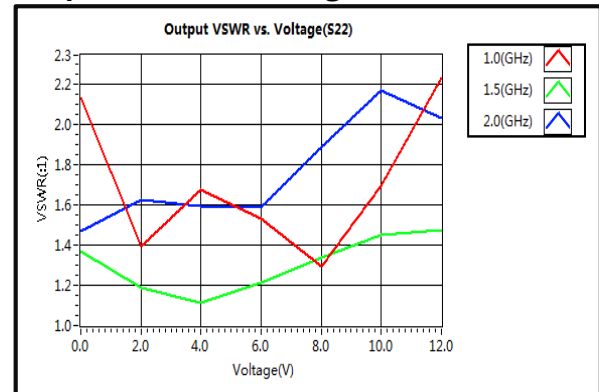
Insertion Loss vs. Frequency



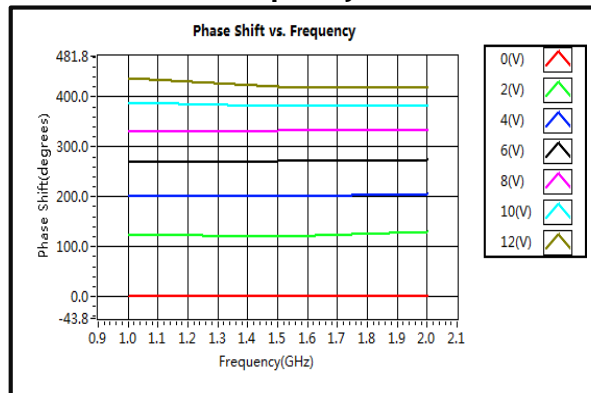
Input VSWR vs. Voltage



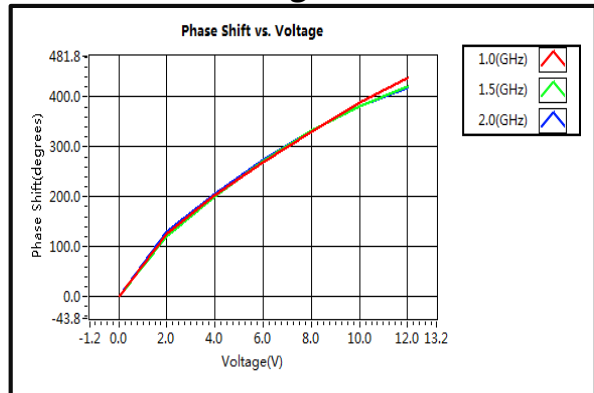
Output VSWR vs. Voltage



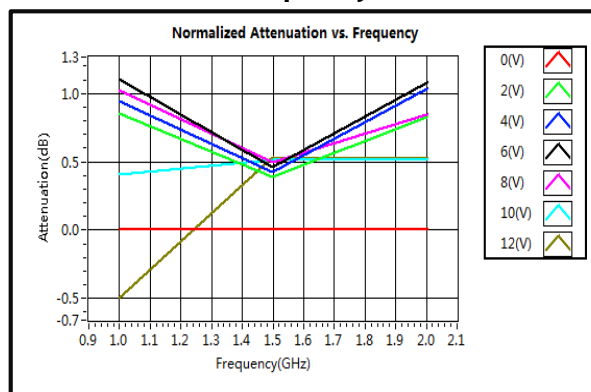
Phase Shift vs. Frequency



Phase Shift vs. Voltage



Attenuation vs. Frequency



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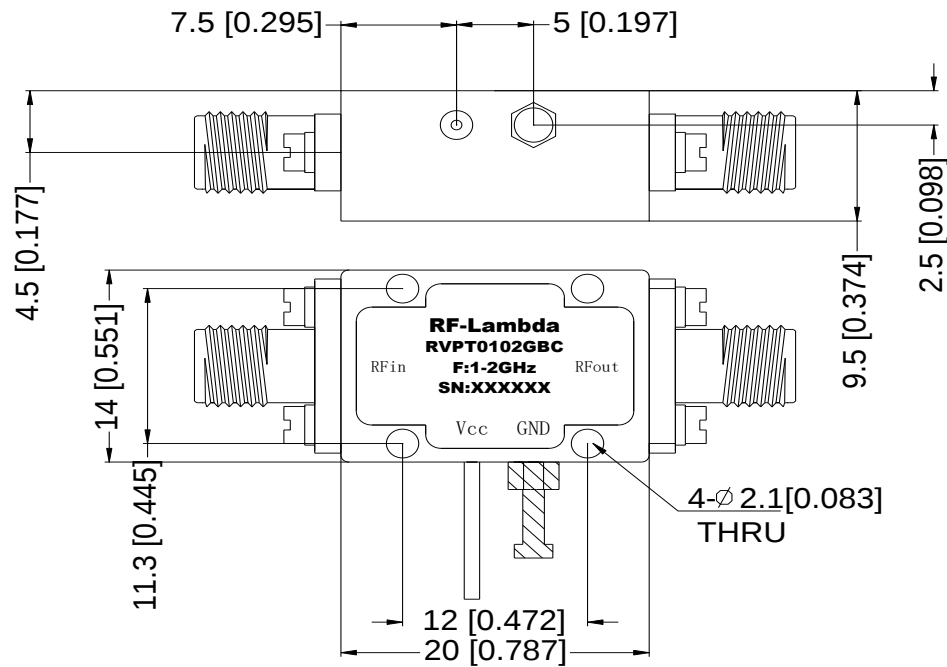
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Outline Drawing:

All Dimensions in mm [inches]



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