Voltage Control Phase Shifter
0.5 - 1GHz

Features

- Wide Band Operation 0.5-1GHz
- 180° Phase Shift
- Low Insertion Loss and Low Phase Error
- Singe Control Operation
- Customization available upon request

Typical Applications

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

RoHS Compliant

Electrical Specifications, TA = +25° C

Description	PN:RVPT0501GAC Voltage Control Phase Shifter			
Parameters	Min	Typ.	Max	Units
Frequency Range	0.5		1.0	GHz
Phase Range		180		deg
Phase Error		±20		deg
Insertion Loss		2.2	3.0	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Input VSWR		1.6	2.0	:1
Output VSWR		1.6	2.0	:1
0.1dB Compression Point (P0.1dB)			23	dBm
Control Voltage	DC-15			V
current	20			mA
Impedance	50			Ω
Weight	1.41			ounces
Input / Output Connectors	SMA-Female			
Finish	Gold plating			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

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Absolute Maximum Ratings

Control Voltage	0~ 18V
RF Input Power	30dBm

Ordering Information

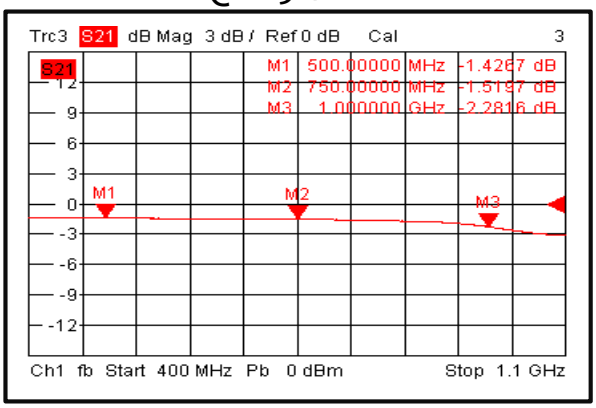
Part No.	ECCN	Description
RVPT0501GAC	EAR99	0.5-1 GHz Voltage Control Phase Shifter

Environmental Specifications and Test Standards

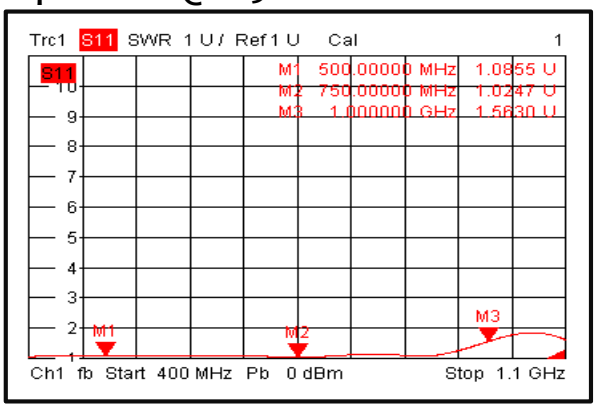
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45℃~+85℃
Storage Temperature		-55℃~+125℃
Thermal Shock		1 Hour@ -45℃ → 1 Hour @ +85℃ (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85℃ for 72 Hours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

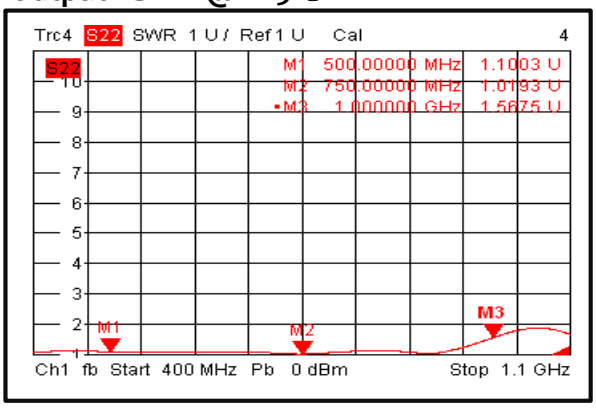
Insertion Loss @ +25℃



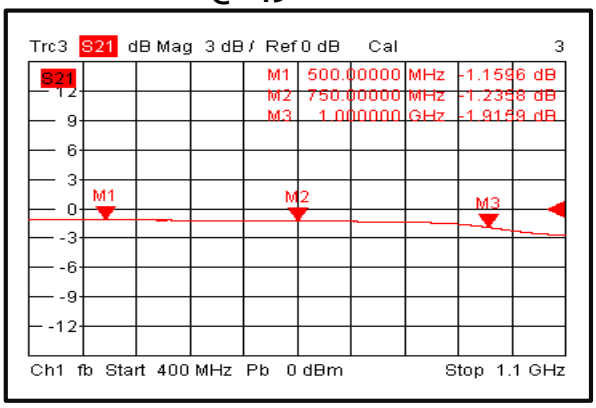
Input VSWR @ +25℃



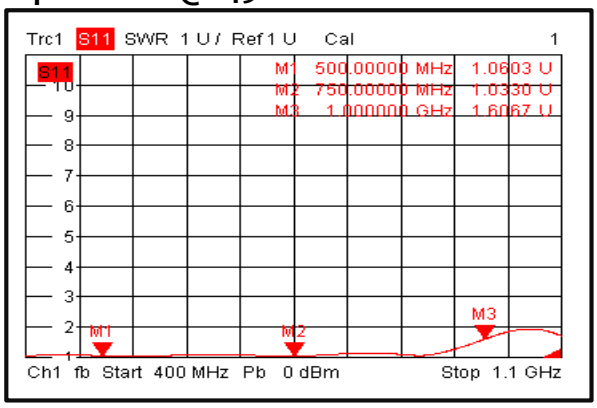
Output VSWR @ +25℃



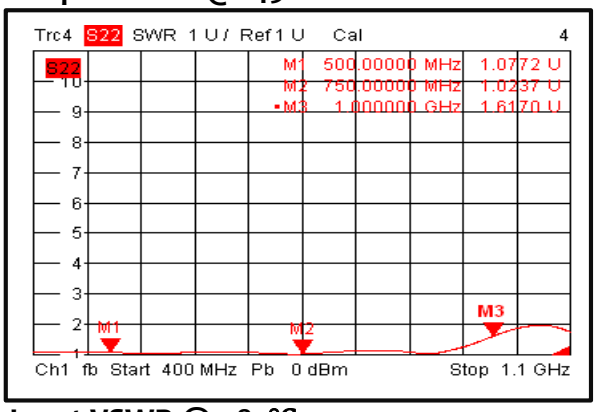
Insertion Loss @ -45℃



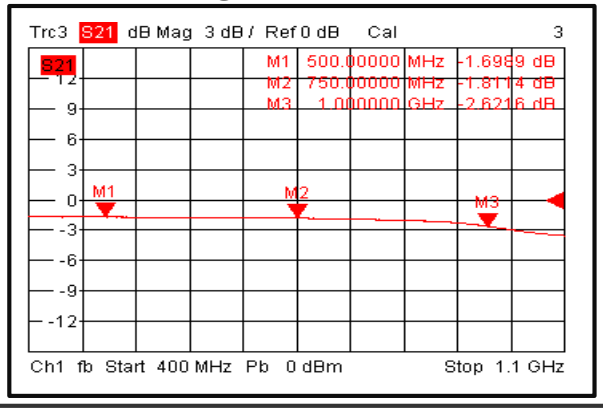
Input VSWR @ -45℃



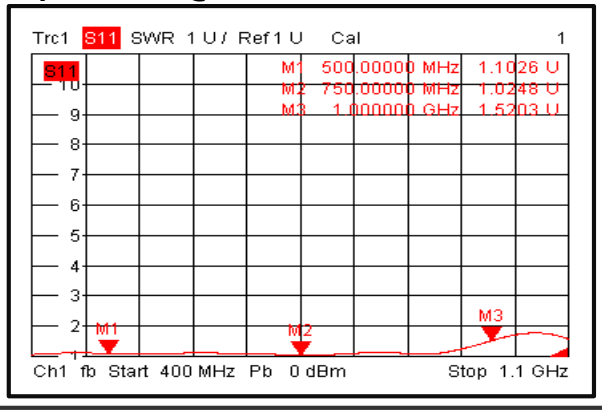
Output VSWR @ -45℃



Insertion Loss @ +85℃



Input VSWR @ +85℃



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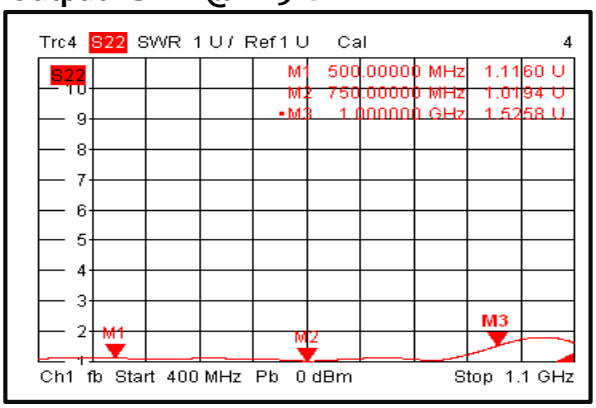
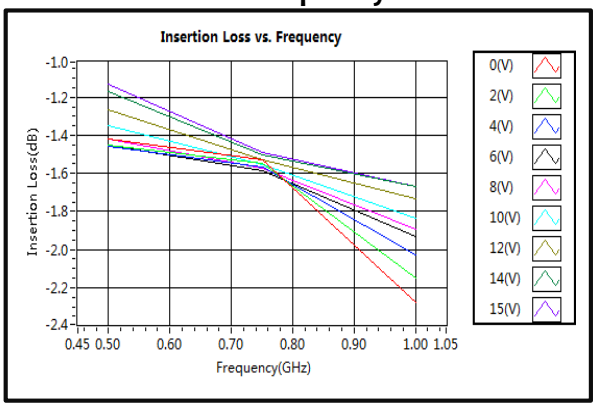
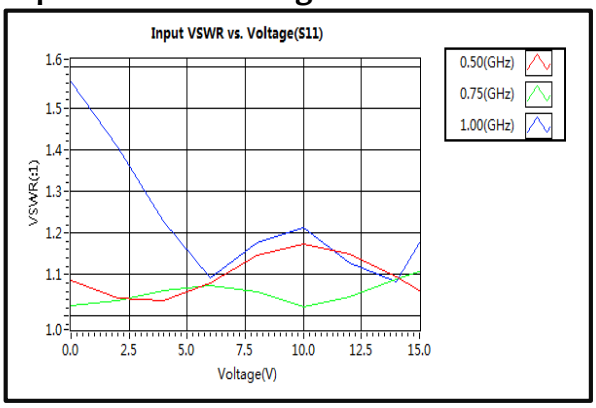
Output VSWR @ +85℃



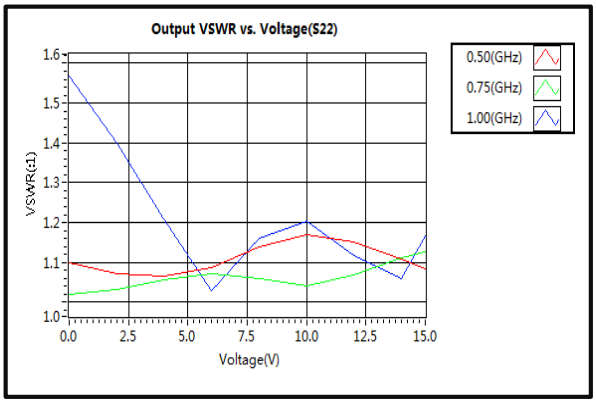
Insertion Loss vs. Frequency



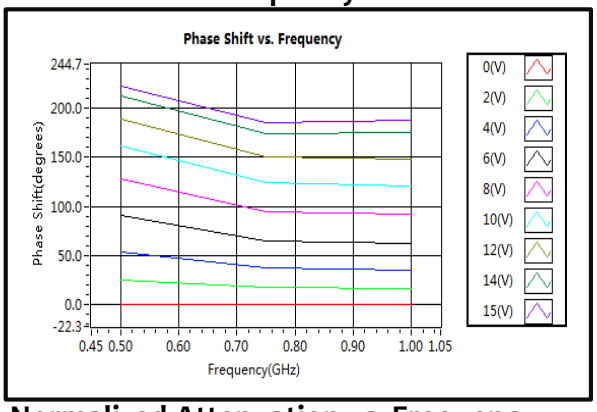
Input VSWR vs. Voltage



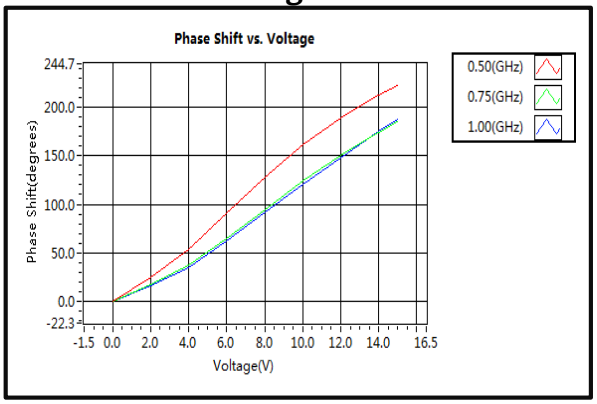
Output VSWR vs. Voltage



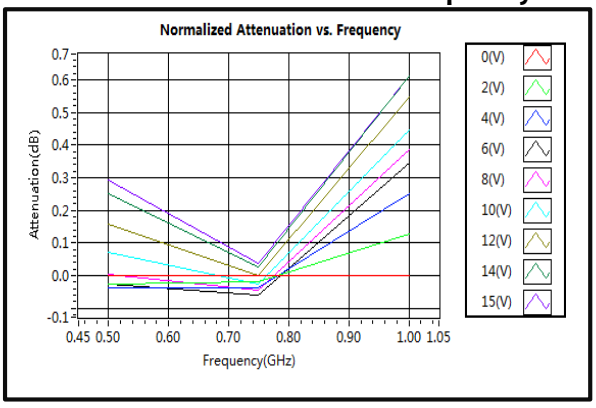
Phase Shift vs. Frequency



Phase Shift vs. Voltage



Normalized Attenuation vs. Frequency



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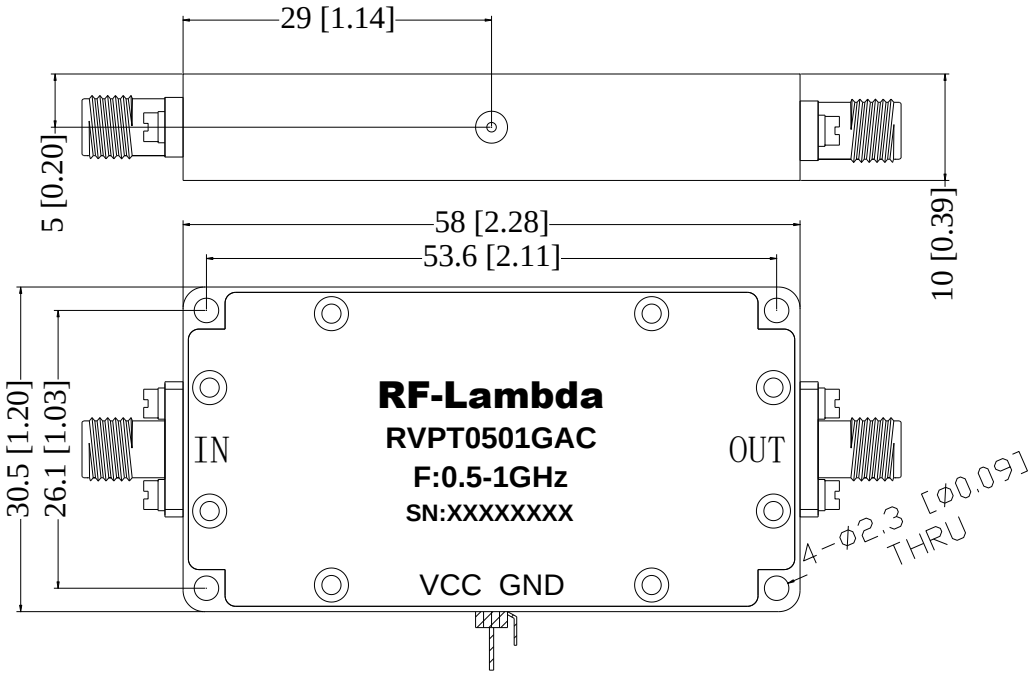
Outline Drawing:

All Dimensions in mm [inches]



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