



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RVPT0117MAC

Voltage Control Phase Shifter 138 - 186MHz



Features

- Wide Band Operation 138-186MHz
- 180° Phase Shift
- Low Insertion Loss and Low Phase Error
- Single Control Operation
- Customization available upon request

Typical Applications

- Military and Aerospace
- Test & Measurement
- Wireless Infrastructure

Electrical Specifications, TA = +25 °C

Description	PN:RVPT0117MAC			
	Voltage Control Phase Shifter			
Parameter	Min	Typ.	Max	Units
Frequency Range	10MHz to 170Mhz (30% BW) (138~186MHz Shown)			MHz
Phase Range		180		deg
Phase Error		±15		deg
Insertion Loss		1.0	1.3	dB
Insertion Loss Temperature Coefficient		0.01		dB/°C
Input VSWR		1.5	2.0	:1
Output VSWR		1.5	2.0	:1
0.1dB Compression Point (Po.1dB)		30		dBm
Control Voltage	0	10		V
Current Consumption	5			mA
Impedance	50			Ω
Weight	2.12			Ounces
Input / Output Connectors	SMA-Female			
Finish	Nickel Plated			
Material	Aluminum			
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
RVPT0117MAC	EAR99	138-186MHz 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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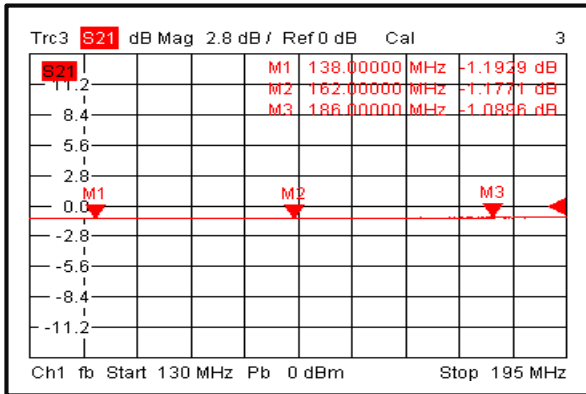
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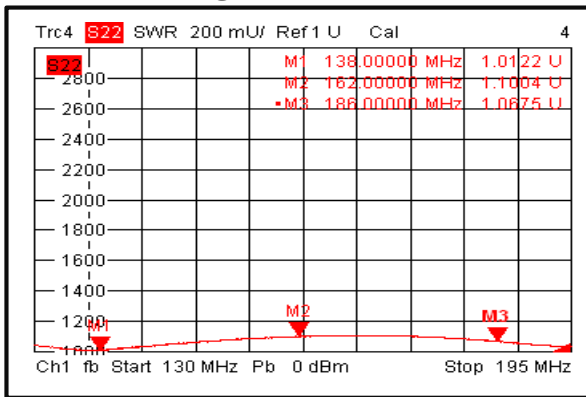
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Typical Performance Plots

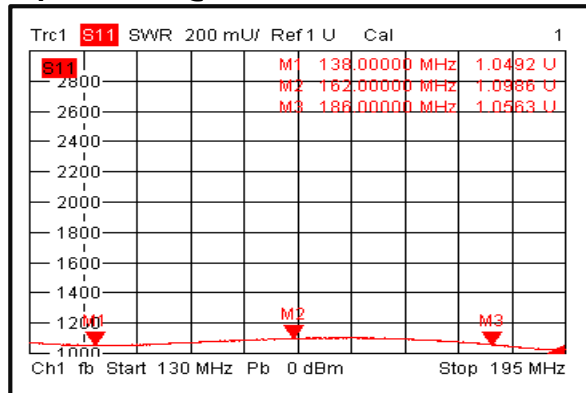
Insertion Loss @ +25°C



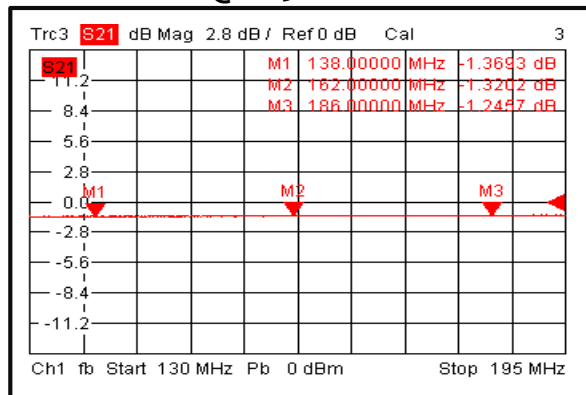
Output VSWR @ +25°C



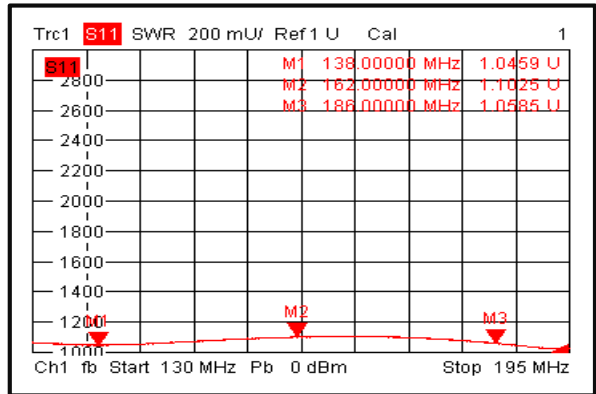
Input VSWR @ -45°C



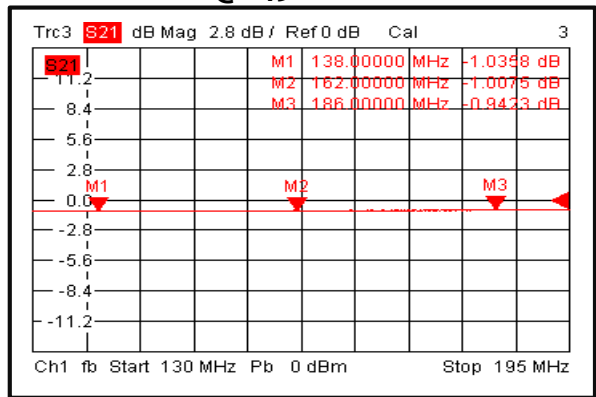
Insertion Loss @ +85°C



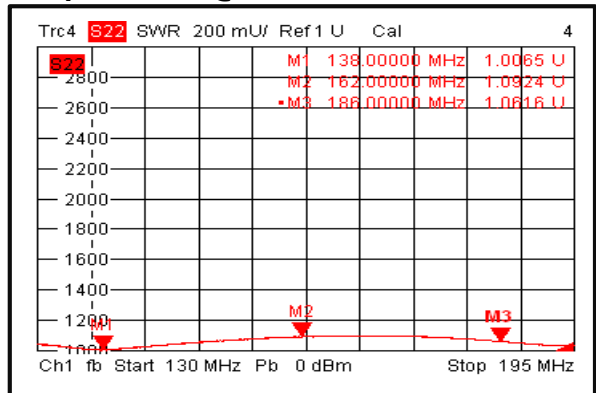
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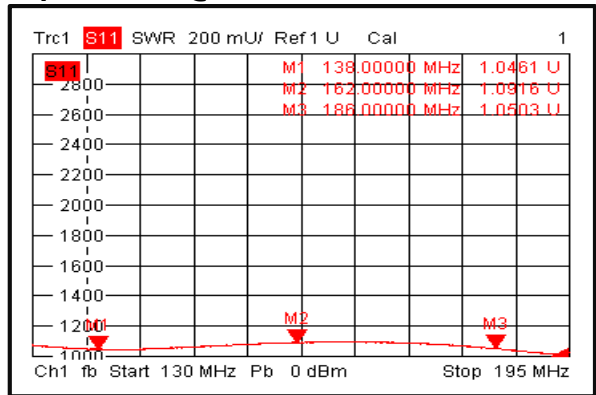
Insertion Loss @ -45°C



Output VSWR @ -45°C



Input VSWR @ +85°C



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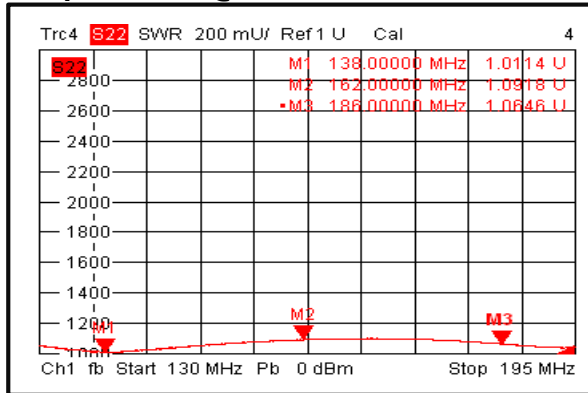


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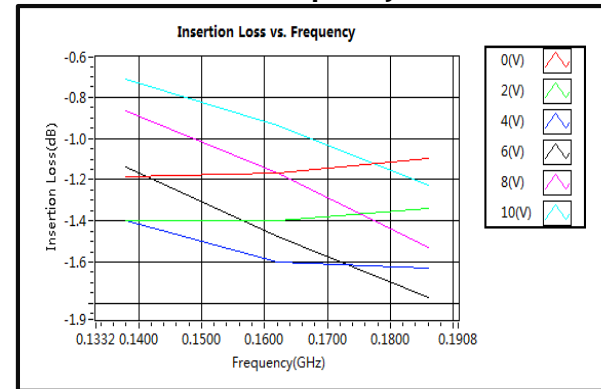
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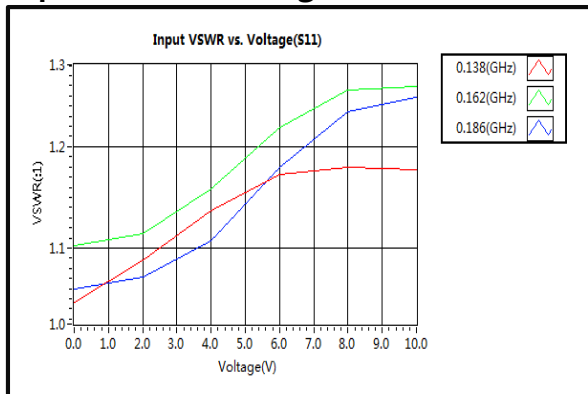
Output VSWR @ +85°C



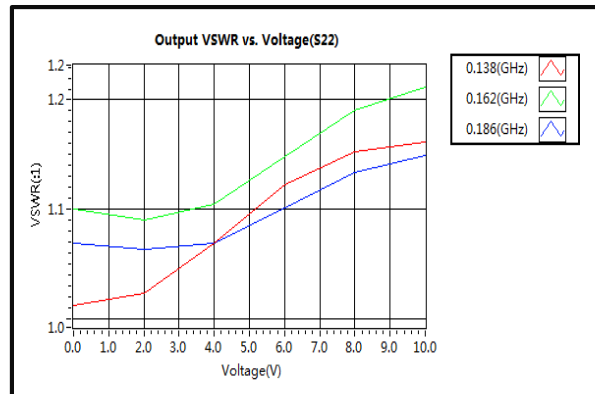
Insertion Loss vs. Frequency



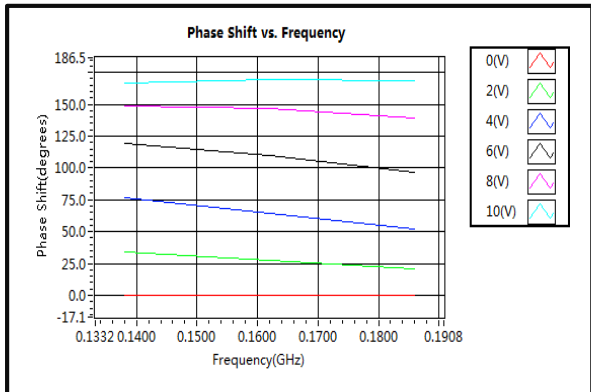
Input VSWR vs. Voltage



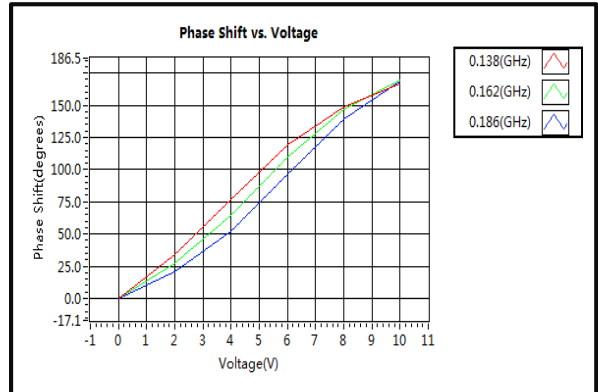
Output VSWR vs. Voltage



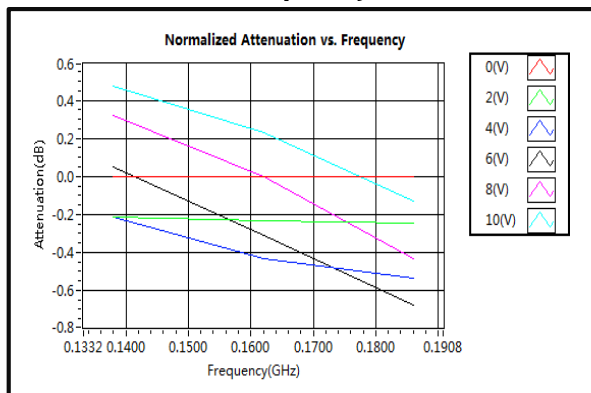
Phase Shift vs. Frequency



Phase Shift vs. Voltage



Attenuation vs. Frequency



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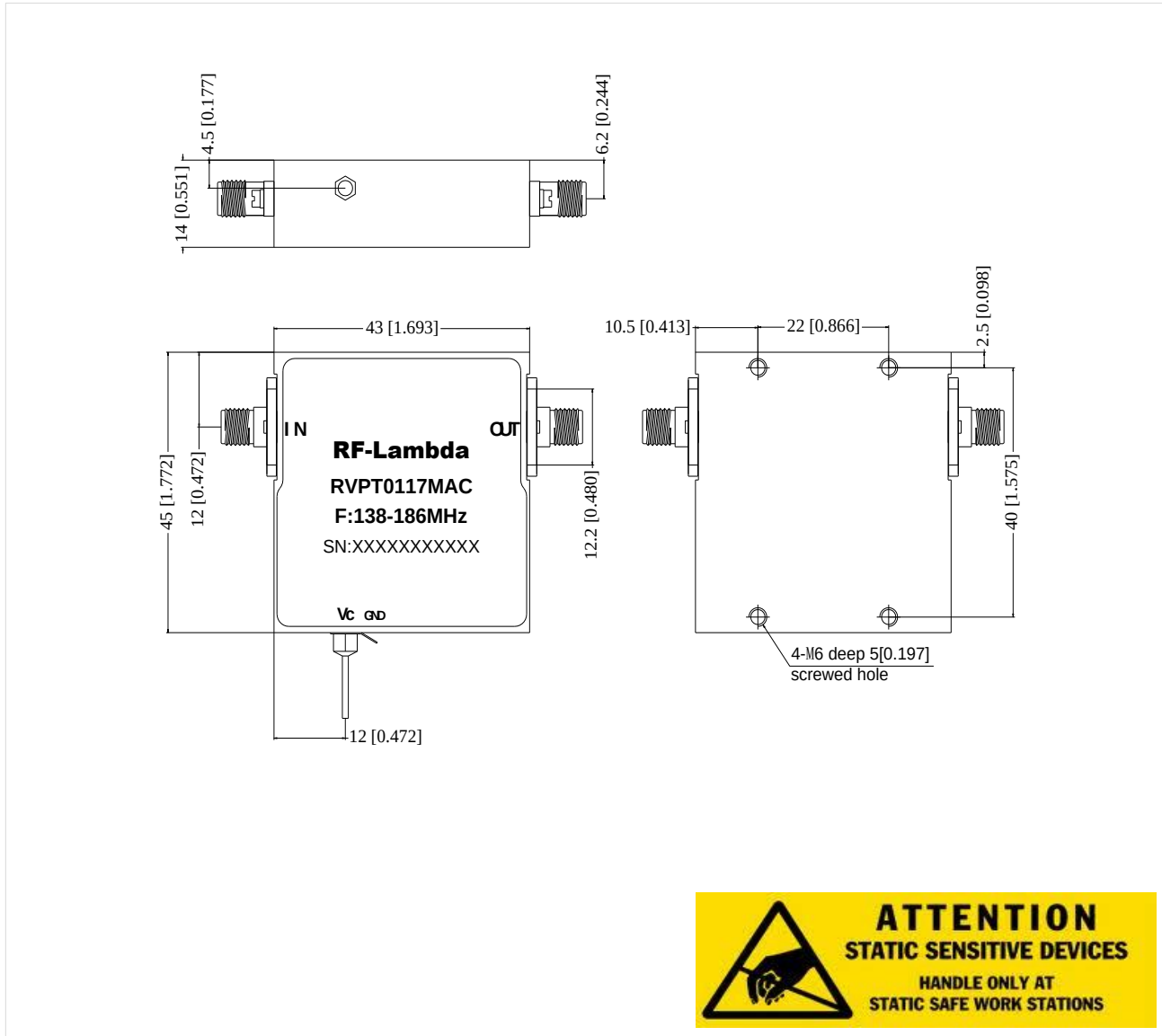
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Outline Drawing:

All Dimensions in mm [inches]



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