

Voltage Control Phase Shifter 130 - 170MHz



Features

- Wide Band Operation 130-170MHz
- 360° Phase Shift
- Low Insertion Loss and Low Phase Error
- Single Control Operation

Typical Applications

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

Electrical Specifications, TA = +25 °C

Description	PN:RVPT0117MCC			
	Voltage Control Phase Shifter			
Parameter	Min.	Typ.	Max.	Units
Frequency Range	130~170			MHz
Phase Range		360		deg
Phase Error		±20		deg
Insertion Loss		2.5	3.5	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 Max.			mA
Impedance	50			Ω
Weight	2.5 Max.			Ounces
Input / Output Connectors	SMA-Female			
Finish	Nickel Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

Voltage Control Phase Shifter 130 - 170MHz

Absolute Maximum Ratings

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

Ordering Information

Part No	Description
RVPT0117MCC	130-170MHz Voltage Control Phase Shifter

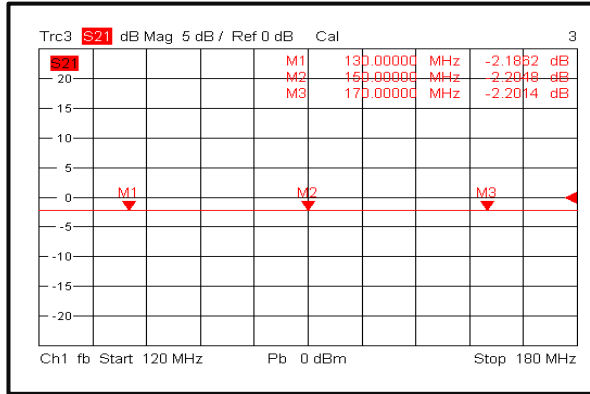
Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High 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	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)

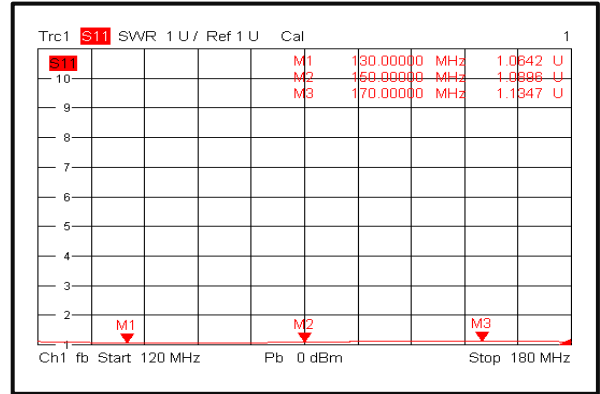
Voltage Control Phase Shifter 130 - 170MHz

Typical Performance Plots

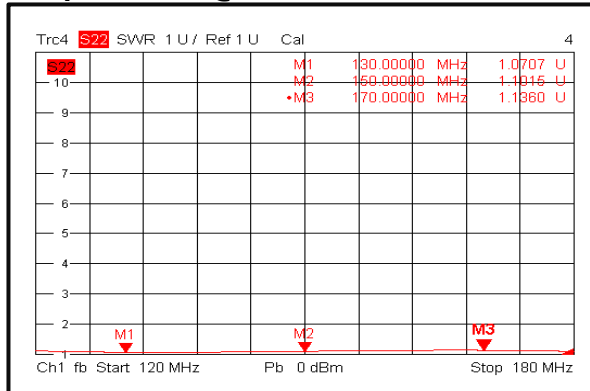
Insertion Loss @ +25°C



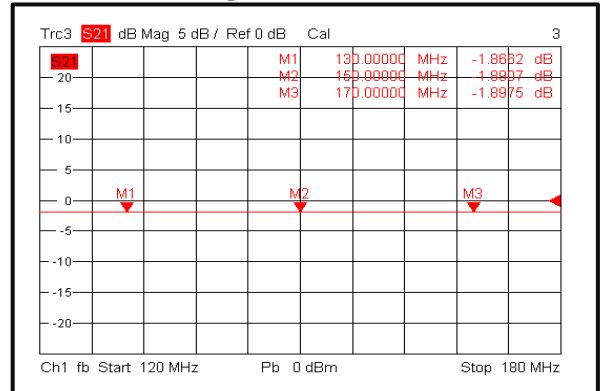
Input VSWR @ +25°C



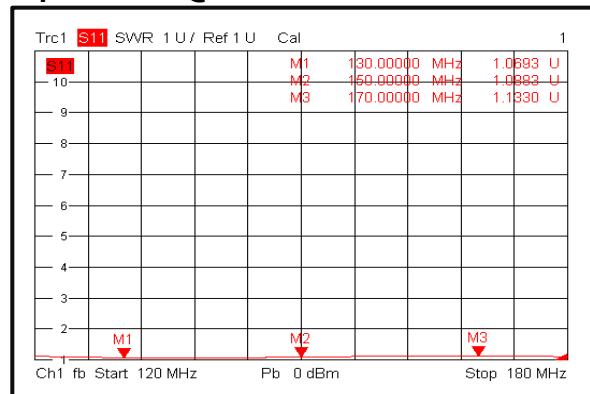
Output VSWR @ +25°C



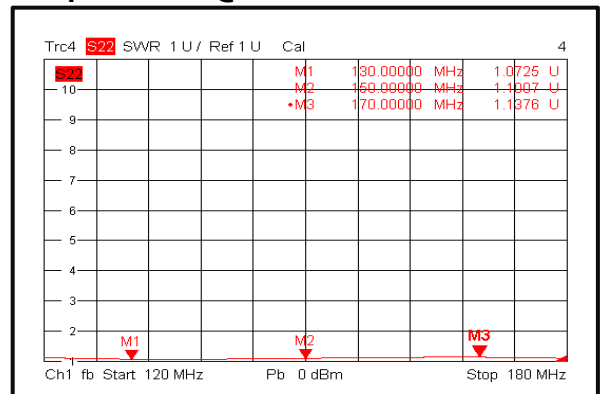
Insertion Loss @ -40°C



Input VSWR @ -40°C

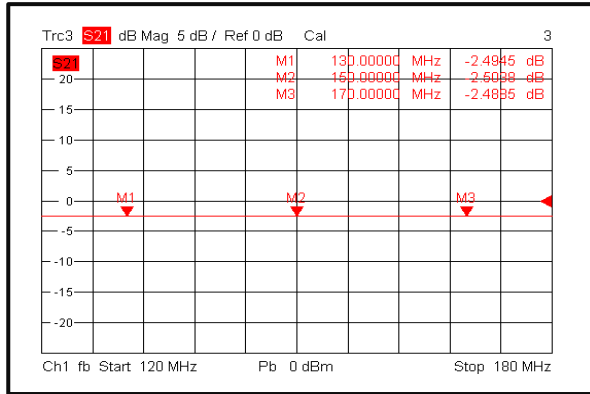


Output VSWR @ -40°C

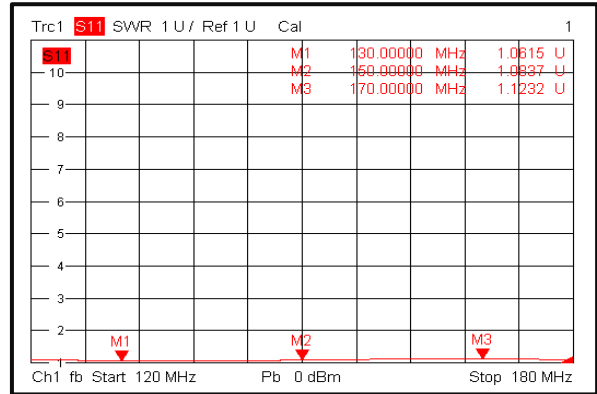


Voltage Control Phase Shifter 130 - 170MHz

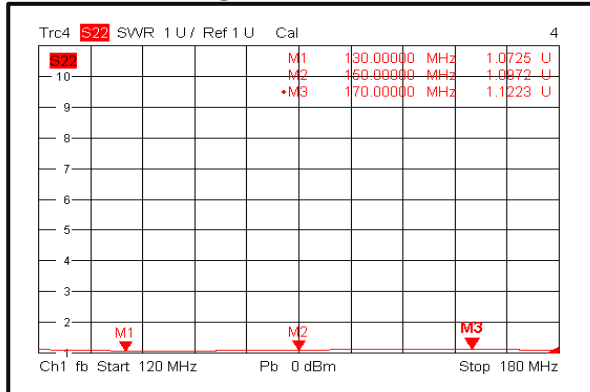
Insertion Loss @ +85°C



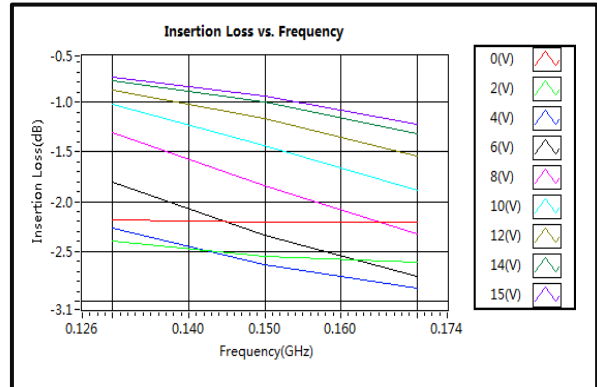
Input VSWR @ +85°C



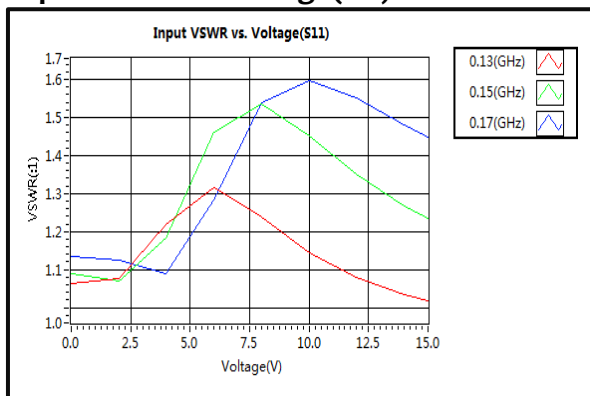
Output VSWR @ +85°C



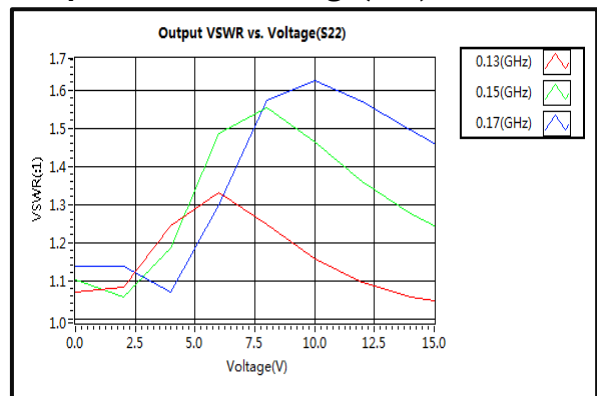
Insertion Loss vs. Frequency



Input VSWR vs. Voltage (S11)

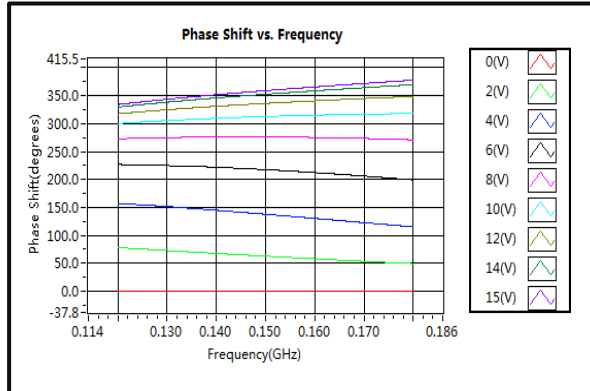


Output VSWR vs. Voltage (S22)

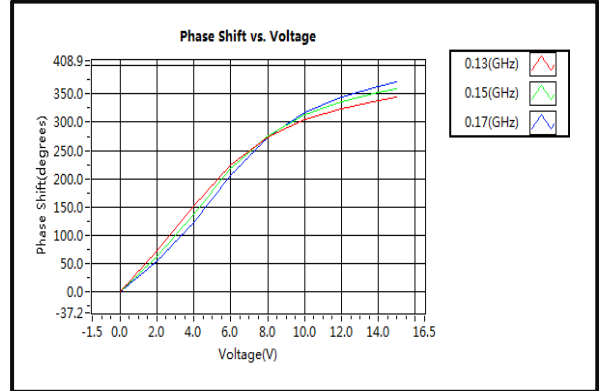


Voltage Control Phase Shifter 130 - 170MHz

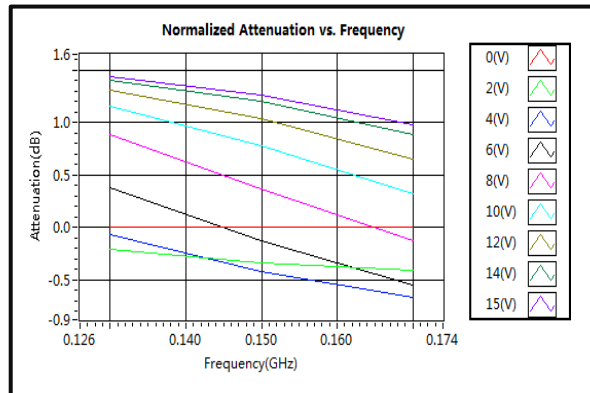
Phase Shift vs. Frequency



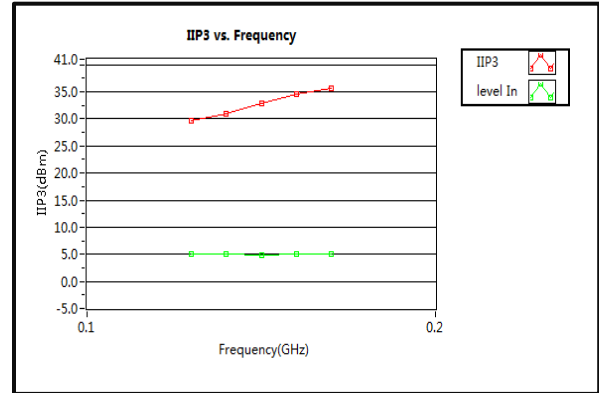
Phase Shift vs. Voltage



Normalized Attenuation vs. Frequency



IIP3

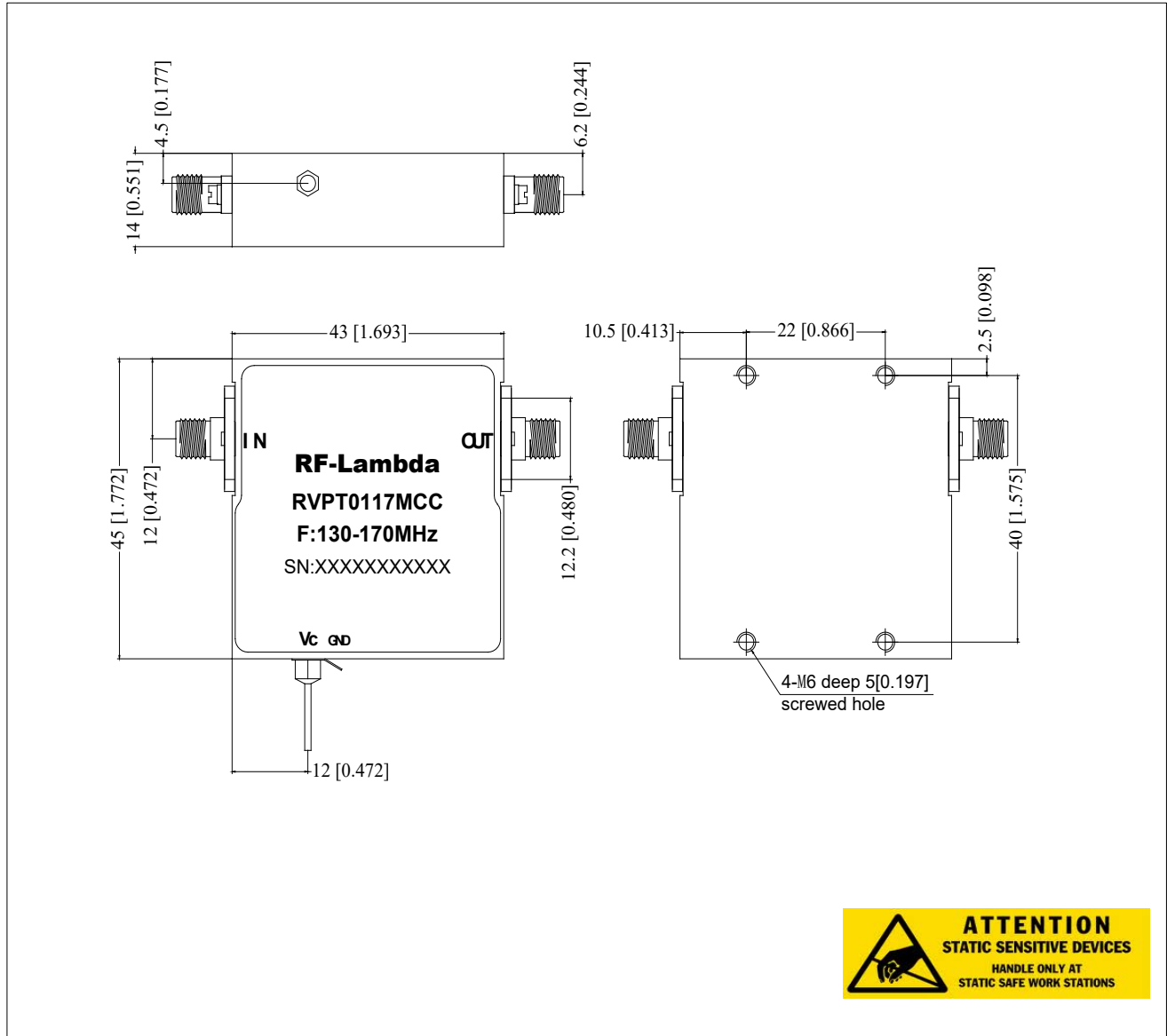


Voltage Control Phase Shifter 130 - 170MHz

Outline Drawing:

All Dimensions in mm [inches]

Housing Tolerance ± 0.2 [0.008]



Voltage Control Phase Shifter 130 - 170MHz



Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.