

Voltage Control Phase Shifter 70-100MHz



Features

- Wide Band Operation 70-100MHz
- 360° Phase Shift
- Low Insertion Loss and Phase Error
- Single Control Operation

Typical Applications

- Aerospace and military applications
- Wireless Infrastructure
- Test and Measurement

Electrical Specifications, TA = +25°C

Description	PN:RVPT0117MBC			
	Voltage Control Phase Shifter			
Parameters	Min.	Typ.	Max.	Units
Frequency Range	70~100			MHz
Phase Range		360		deg
Phase Error		±20		deg
Insertion Loss		3.5	5.0	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
IIP3		23		dBm
Control Voltage	0	10		V
current	5 Max.			mA
Impedance	50			Ω
Weight	2.2Max.			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

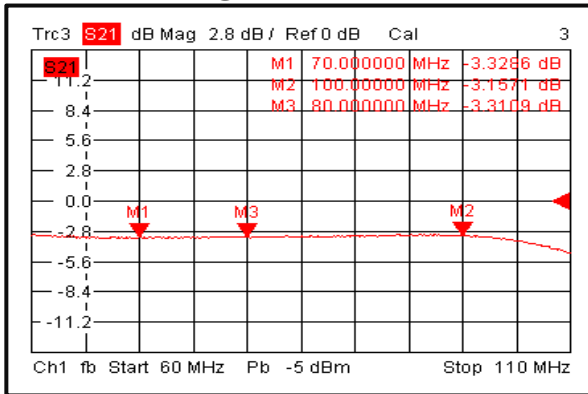
Part No.	Description
RVPT0117MBC	70-100MHz Voltage Control Phase Shifter

Environmental Specifications and Test Standards

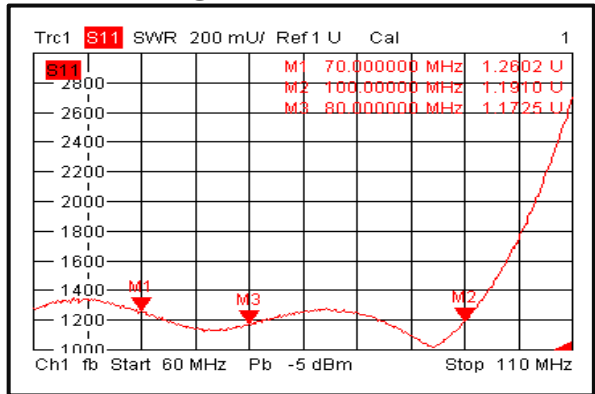
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
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)

Typical Performance Plots

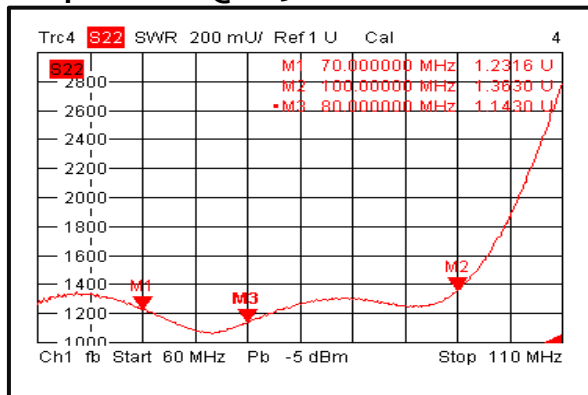
Insertion Loss @ +25°C



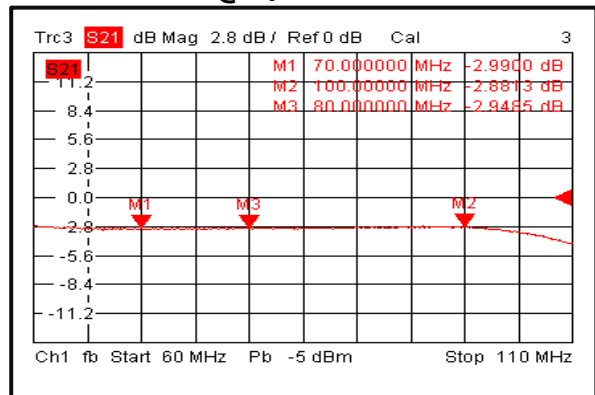
Input VSWR @ +25°C



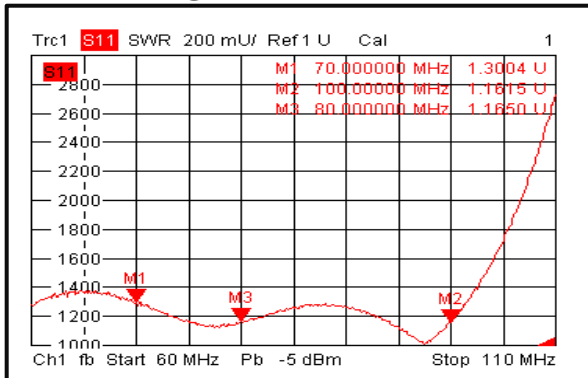
Output VSWR @ +25°C



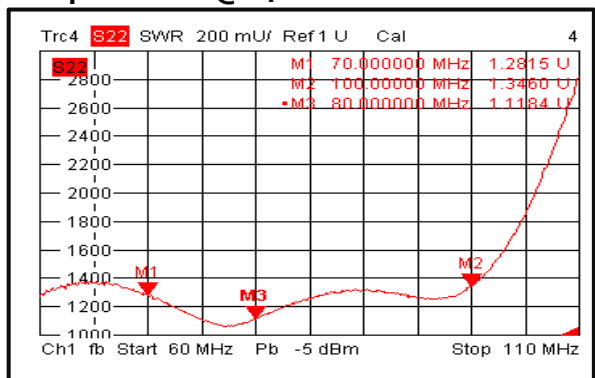
Insertion Loss @ -40°C



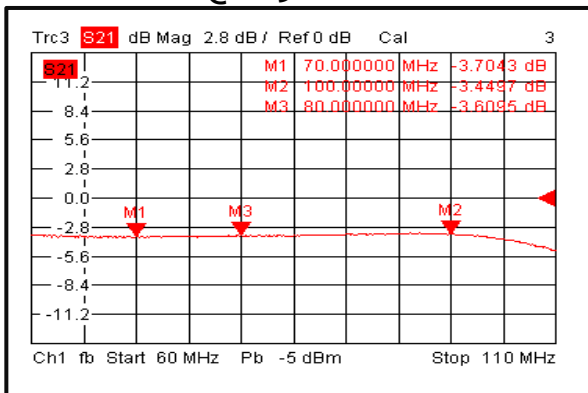
Input VSWR @ -40°C



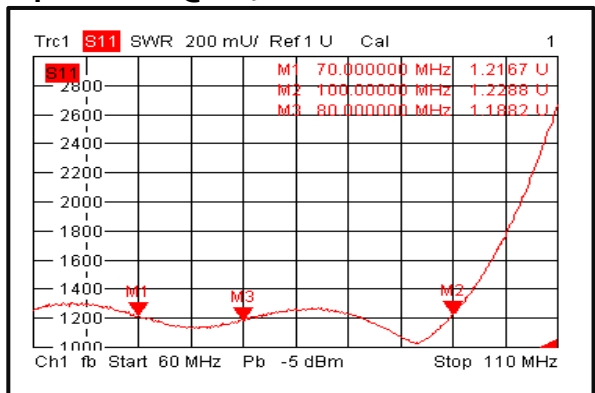
Output VSWR @ -40°C



Insertion Loss @ +85°C

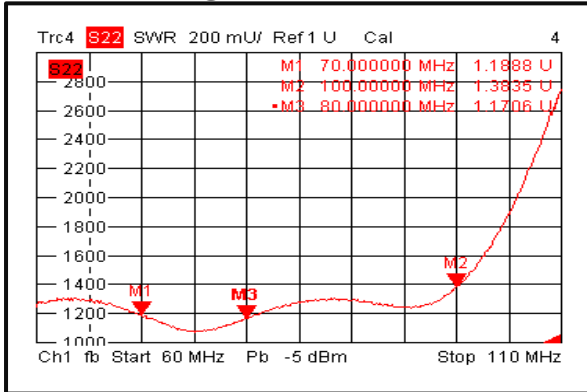


Input VSWR @ +85°C

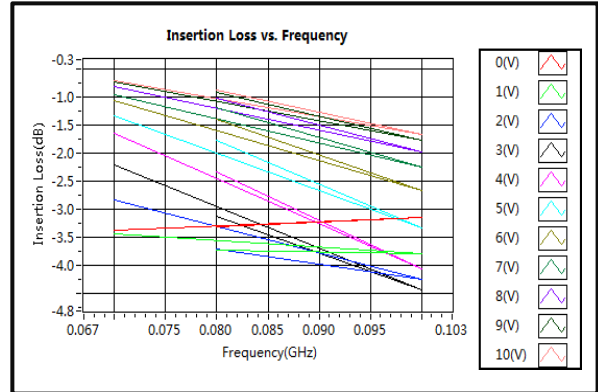


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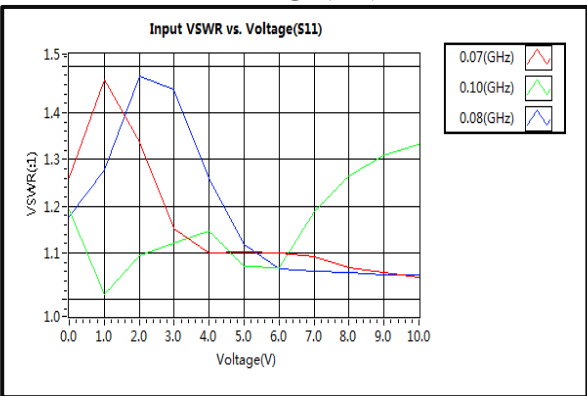
Output VSWR @ +85°C



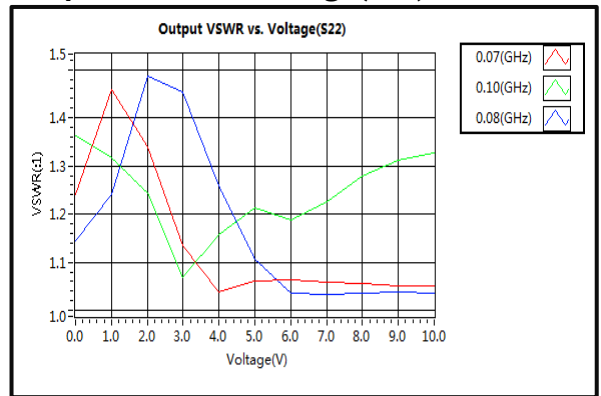
Insertion Loss vs. Frequency



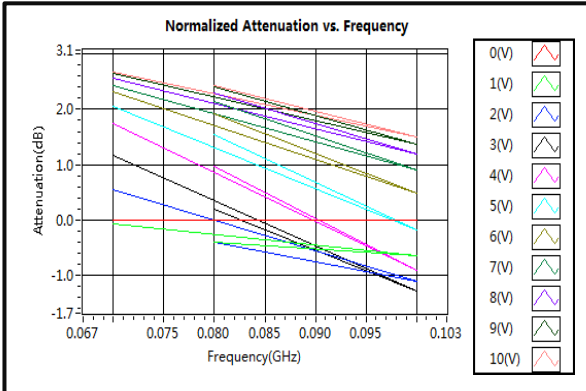
Input VSWR vs. Voltage(S11)



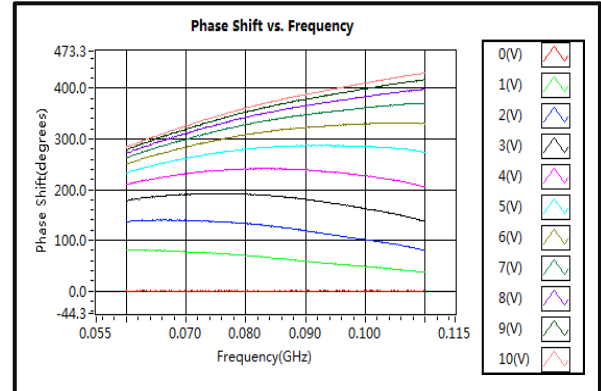
Output VSWR vs. Voltage(S22)



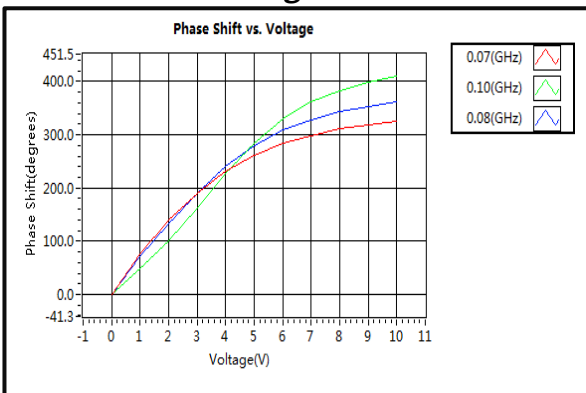
Normalized Attenuation vs. Frequency



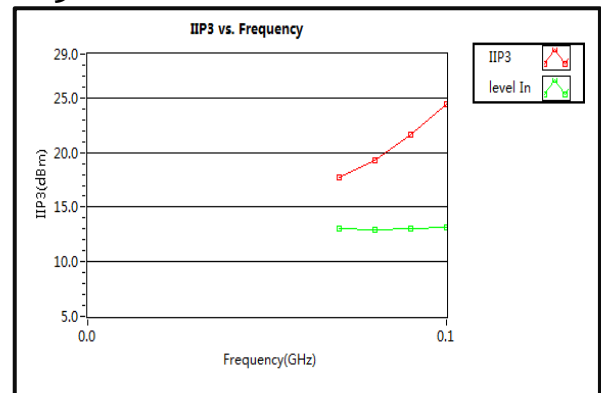
Phase Shift vs. Frequency



Phase Shift vs. Voltage



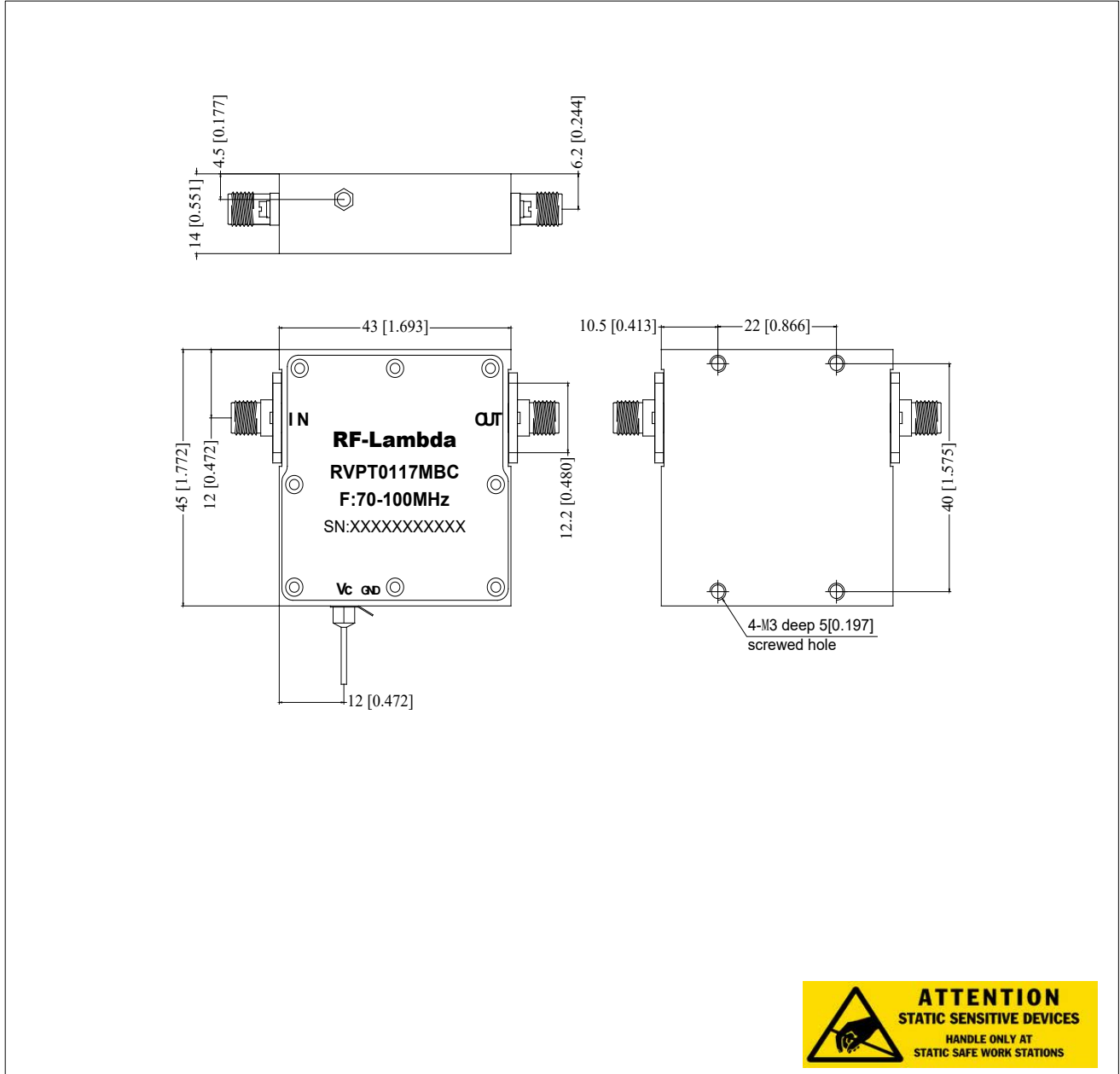
IIP3



Outline Drawing:

All Dimensions in mm [inches]

Tolerances ± 0.1 [0.004]



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