



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RVPT1725MBC

Voltage Control Phase Shifter 170- 250MHz



Features

- Wide Band Operation 170-250MHz
- 360° Phase Shift
- Low Insertion Loss and Low Phase Error
- Single Control Operation
- Customization available upon request

Typical Applications

- Aerospace and military applications
- LMDS multi-carrier operation

Electrical Specifications, TA = +25°C

Description	PN:RVPT1725MBC						
	Voltage Control Phase Shifter						
Parameters	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	170-210			210-250			MHz
Phase Range		360			360		°
Insertion Loss		2.5	4.5		6	6.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/°C
Phase Flatness		±20			±20		°
Control Voltage	0	15		0	15		V
Input VSWR		1.5	2.0		1.5	2.2	:1
Output VSWR		1.5	2.0		1.5	2.2	:1
0.1dB Compression Point (Po.1dB)	30						dBm
Input IP3	35						dBm
Weight	2.82						ounces
Impedance	50						Ω
Current Consumption	5						mA
Input / Output Connectors	SMA-Female						
Finish	Nickel Plated						
Material	Aluminum						
Seal	Hermetically Sealed (Optional)						

Voltage Control Phase Shifter 170- 250MHz



Absolute Maximum Ratings

Control Voltage	0~ 20V
RF Input power	+33dBm

Ordering Information

Part No.	ECCN	Description
RVPT1725MBC	EAR99	170-250MHz 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)



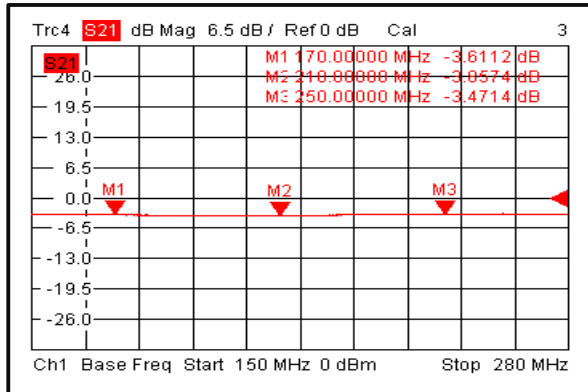
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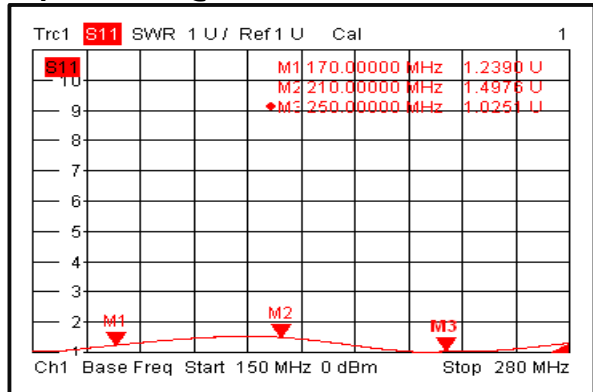
RVPT1725MBC

Typical Performance Plots

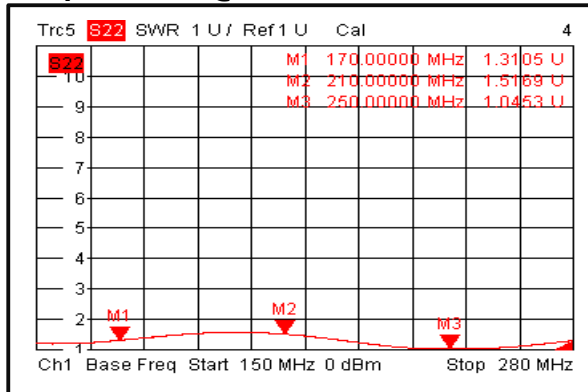
Insertion Loss @ +25°C



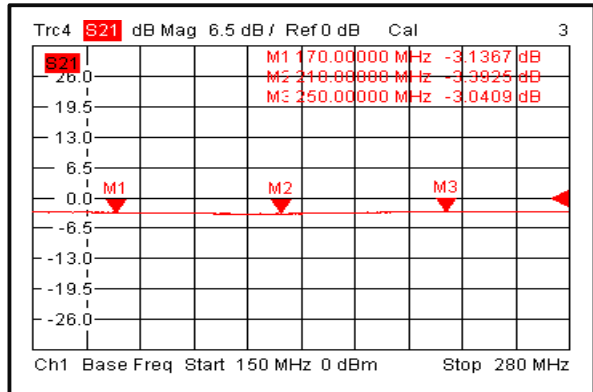
Input VSWR @ +25°C



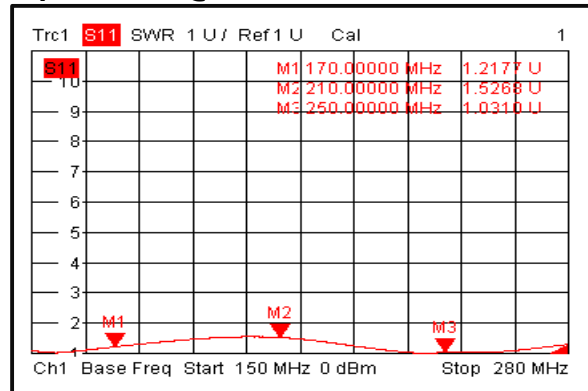
Output VSWR @ +25°C



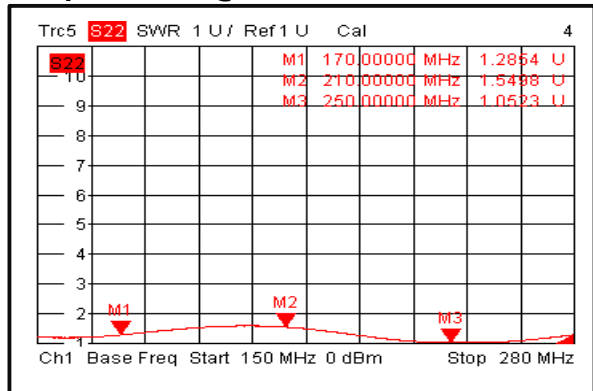
Insertion Loss @ -45°C



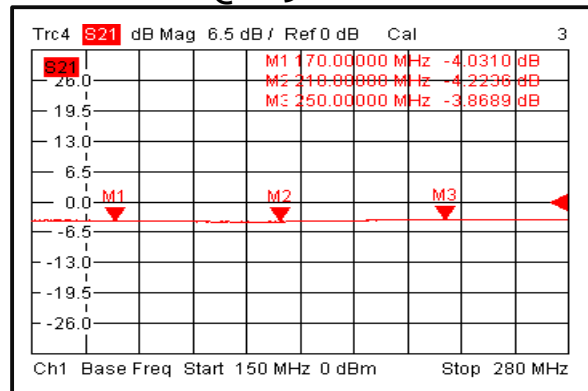
Input VSWR @ -45°C



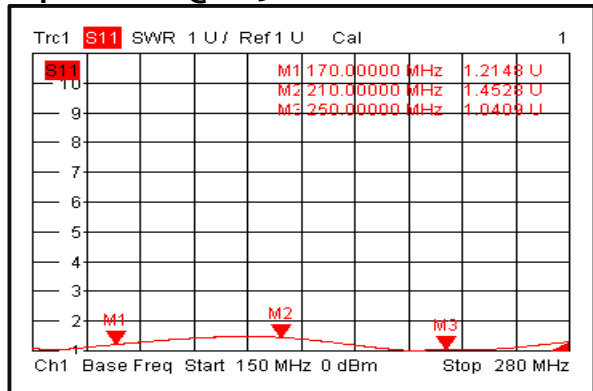
Output VSWR @ -45°C



Insertion Loss @ +85°C



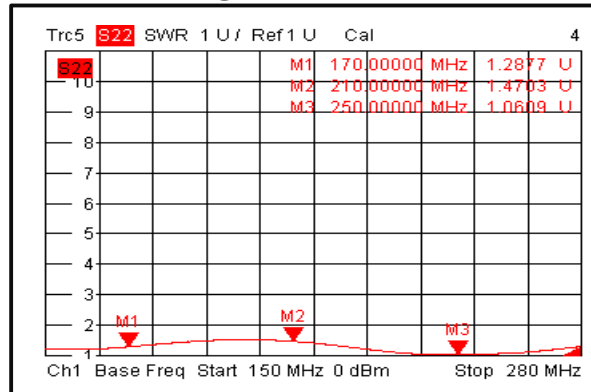
Input VSWR @ +85°C



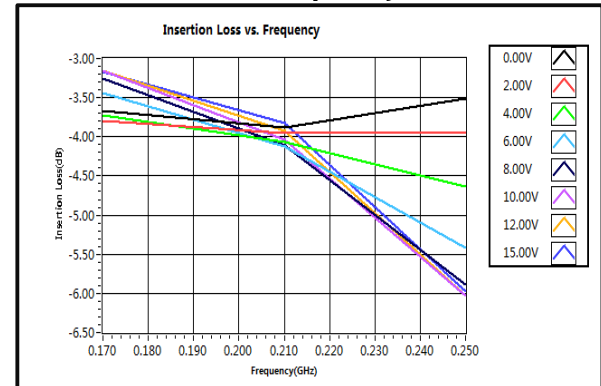
Voltage Control Phase Shifter 170-250MHz



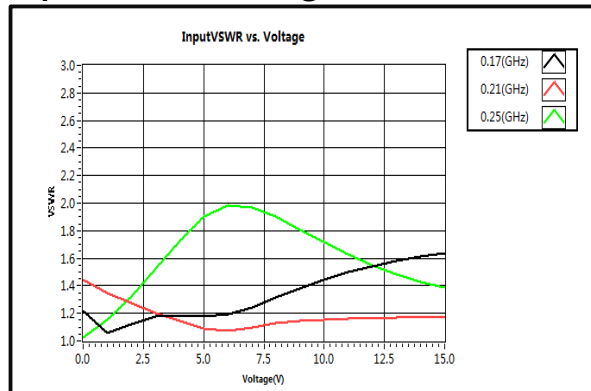
Output VSWR @ +85°C



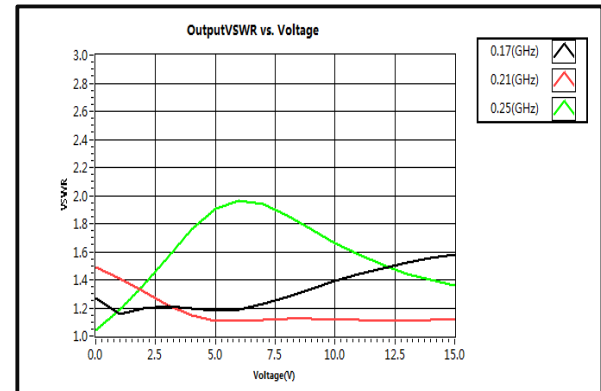
Insertion Loss vs. Frequency



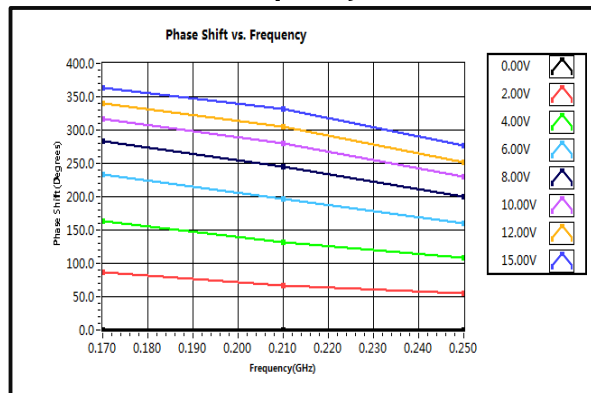
Input VSWR vs. Voltage



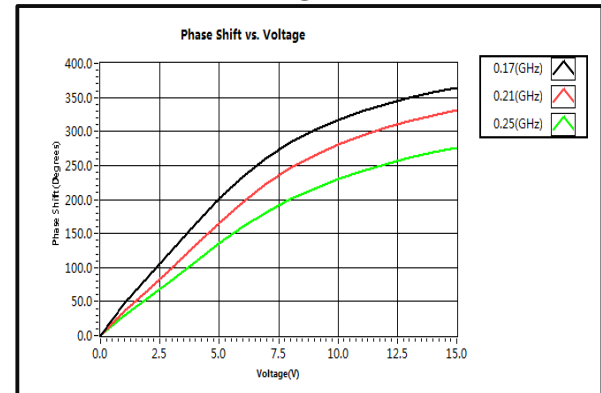
Output VSWR vs. Voltage



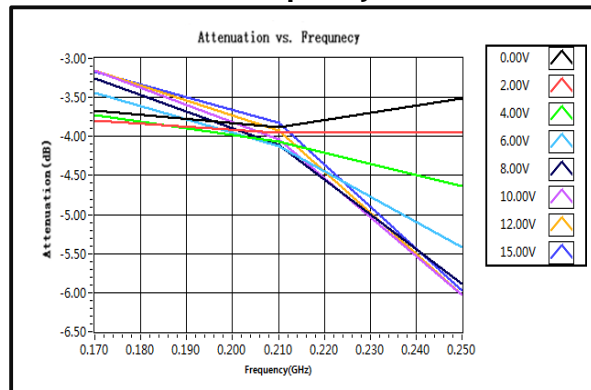
Phase Shift vs. Frequency



Phase Shift vs. Voltage



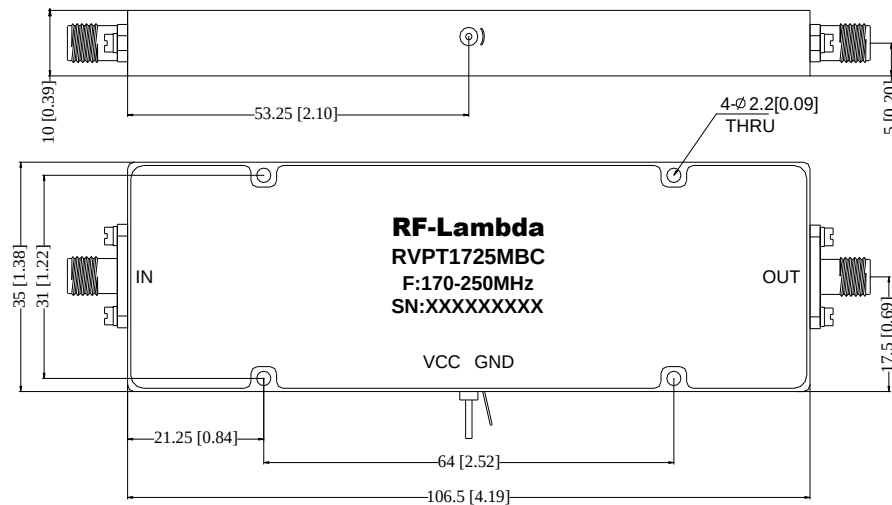
Attenuation vs. Frequency





Outline Drawing:

All Dimensions in mm [inches]



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