



# Voltage Control Phase Shifter 2-20GHz



## Features

- Ultra Wide Band Operation 2-20GHz
- 180° Phase Shift
- Low Insertion Loss and Low Phase Error
- Single Control Operation
- Customization available upon request

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	2-11		11-20				GHz
Phase Range		180			180		deg
Insertion Loss		5	6		12	13	dB
Insertion Loss Temperature Coefficient		0.07			0.07		dB/ °C
Phase Flatness		±20	±25		±20	±25	deg
Control Voltage	0.5	8.5		0.5	8.5		V
Input VSWR		2.5	3		3.3	3.5	:1
Output VSWR		2.5	3		3.3	3.5	:1
0.1dB Compression Point (P0.1dB)		25			25		dBm
Current			2				mA
Impedance			50				Ω
Weight			0.35				Ounces
Input / Output Connectors			SMA-Female				
Finish			Gold Plated				
Material			Aluminum				
Package Sealing			Hermetically Sealed (Optional)				



### Absolute Maximum Ratings

Control Voltage	-0.5~ 15V
RF Input power	+26dBm

### Environmental Specifications

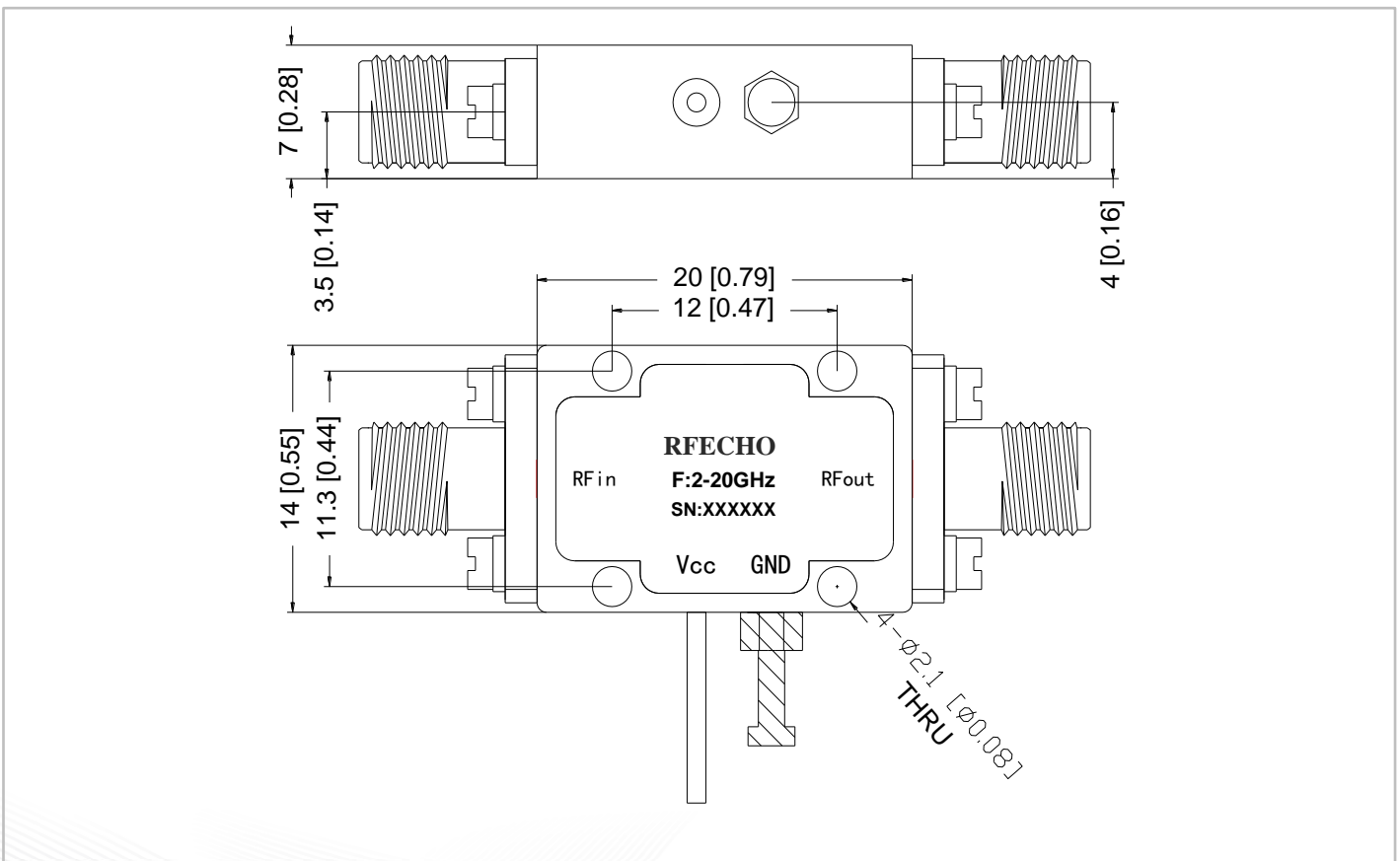
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

### Ordering Information

Part No.	Description
DBVCPS02002000A	2-20GHz Voltage Control Phase Shifter

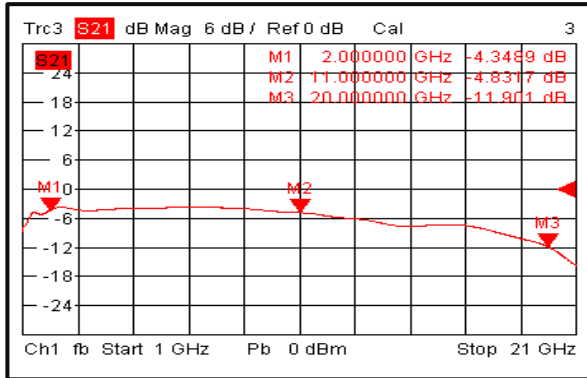
### Outline Drawing:

All Dimensions in mm (inches)

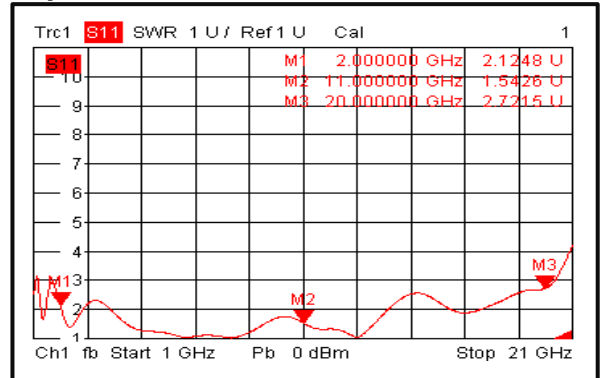




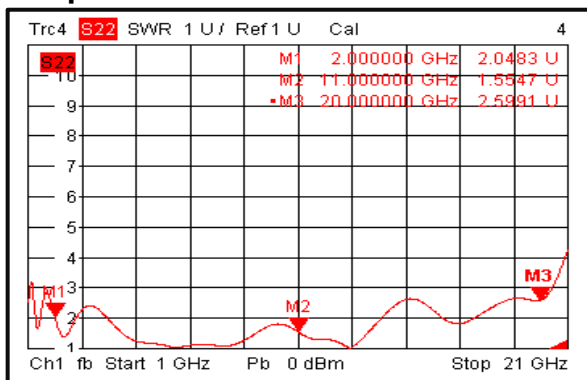
### Insertion Loss @ +25°C



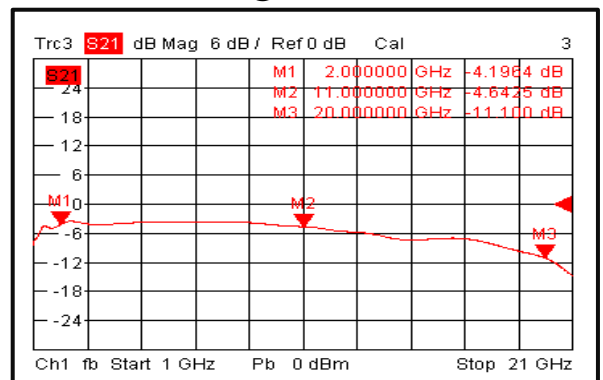
### Input VSWR @ +25°C



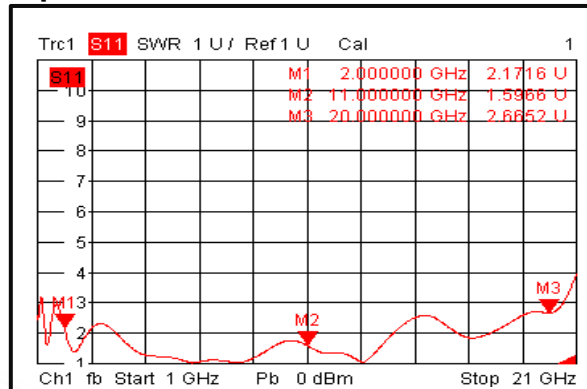
### Output VSWR @ +25°C



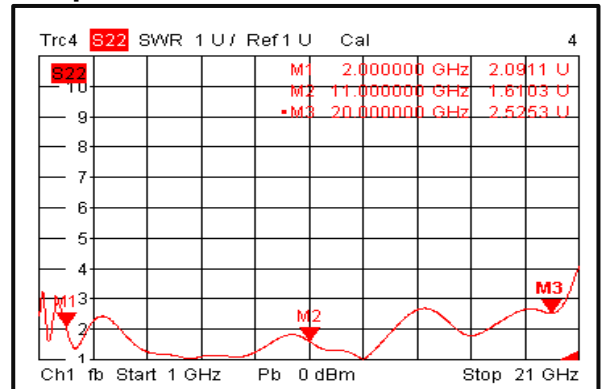
### Insertion Loss @ -40°C



### Input VSWR @ -40°C

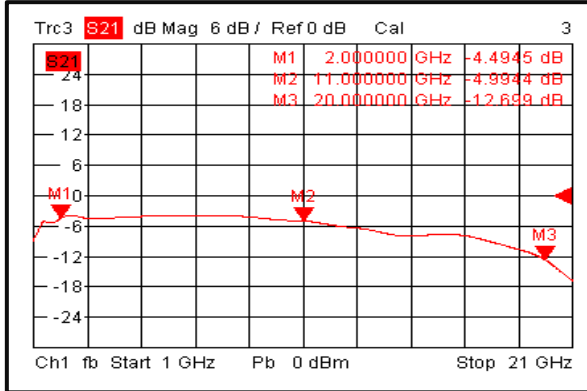


### Output VSWR @ -40°C

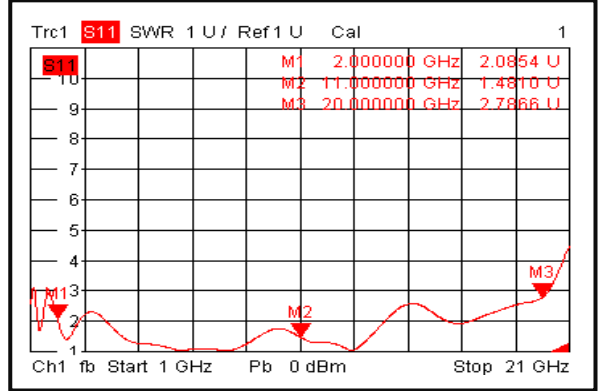




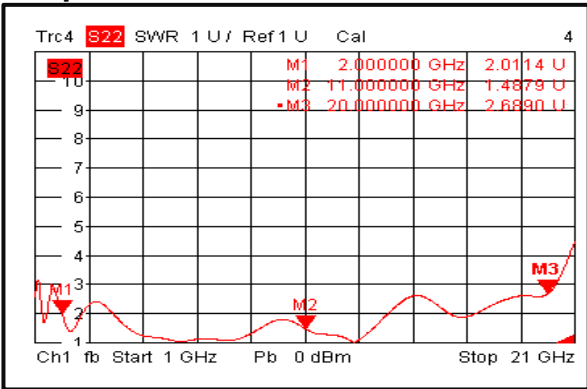
### Insertion Loss @ +85°C



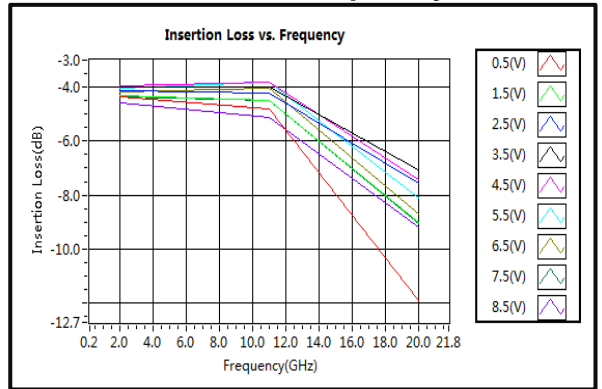
### Input VSWR @ +85°C



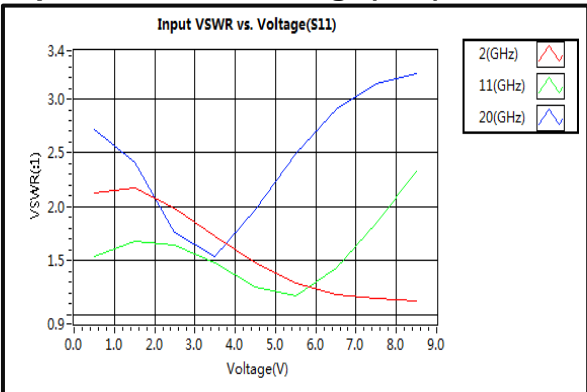
### Output VSWR @ +85°C



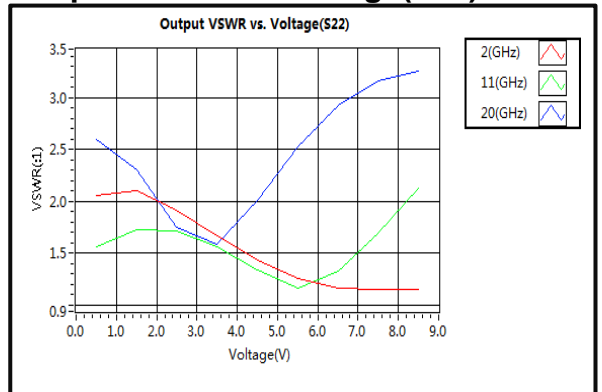
### Insertion Loss vs. Frequency



### Input VSWR vs. Voltage(S11)

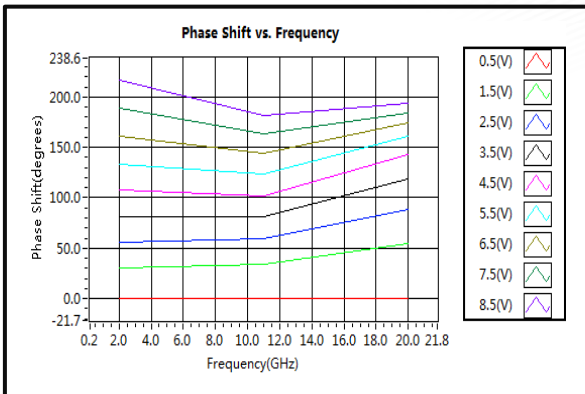


### Output VSWR vs. Voltage(S22)

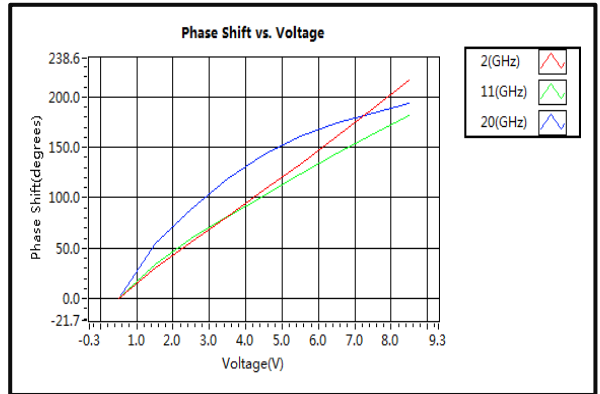




### Phase Shift vs. Frequency



### Phase Shift vs. Voltage



### Normalized Attenuation vs. Frequency

