# Surface Mount Voltage Control Phase Shifter 2 - 4GHz

## Features

- Wide Band Operation 2-4GHz
- 360° Phase Shift
- Low Insertion Loss and Low Phase Error
- Singe Control Operation
- Customization available upon request


| Parameter | Min | Typ. | Max | Units |
|---|---|---|---|---|
| Frequency Range | | 2-4 | | GHz |
| Phase Range | 360 | | | deg |
| Phase Flatness | | ±10 | ±15 | deg |
| Insertion Loss | | 5.5 | 7.0 | dB |
| Insertion Loss Temperature Coefficient | | 0.01 | | dB/ °C |
| Input VSWR | | 2.5 | 3.0 | :1 |
| Output VSWR | | 2.5 | 3.0 | :1 |
| 0.1dB Compression Point (P0.1dB) | | 25 | | dBm |
| Control Voltage | 0 | 10 | | V |
| Current | | 5 Max. | | mA |
| Impedance | | 50 | | Ω |
| Weight | | 0.5 Max. | | ounces |
| Input / Output Connectors | | SMD | | |
| Material | | Aluminum | | |
| Seal | | Hermetically Sealed (Optional) | | |

## Absolute Maximum Ratings

| | |
|---|---|
| Control Voltage | 0~ 15V |
| RF Input power | +27dBm |

## Environmental Specifications

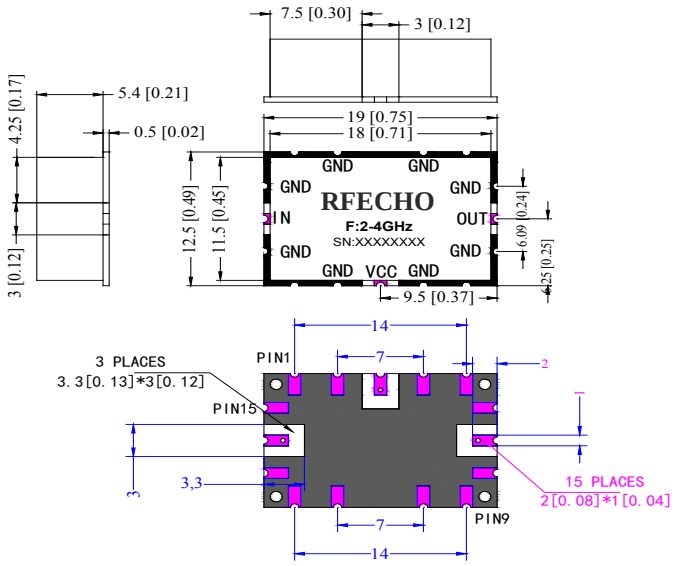
| | |
|---|---|
| Operational Temperature | -40ºC~+85ºC |
| Storage Temperature | -50ºC~+105ºC |
| Altitude | 30,000 ft. (Epoxy Sealed Controlled environment) |
| | 60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional) |
| Vibration | 25g RMS (15 degrees 2KHz) endurance, 1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

## Ordering Information

| Part No. | Description |
|---|---|
| DBVCPS02000400C | 2-4GHz Voltage Phase Shifter |

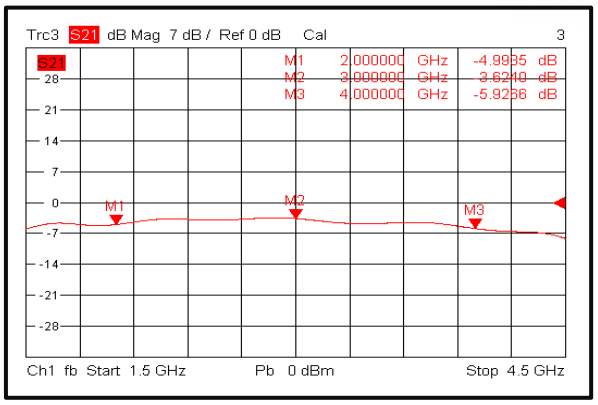
## Outline Drawing:

All Dimensions in mm (inches)
Tolerances ±0.1(0.004)

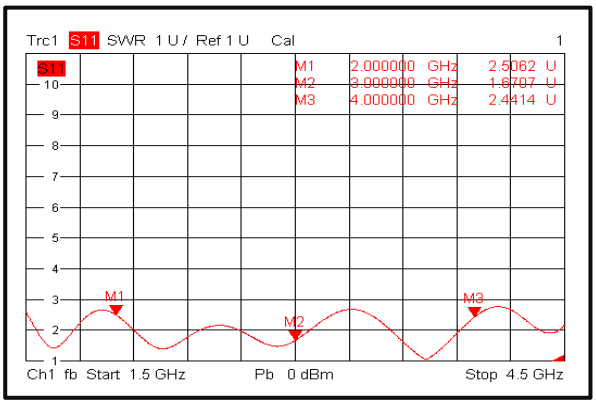



PIN DEFINITION
RF IN :14
RF OUT :7
VCC :3
GND:1,2,4,5,6,
8,9,10,11,
12,13,15

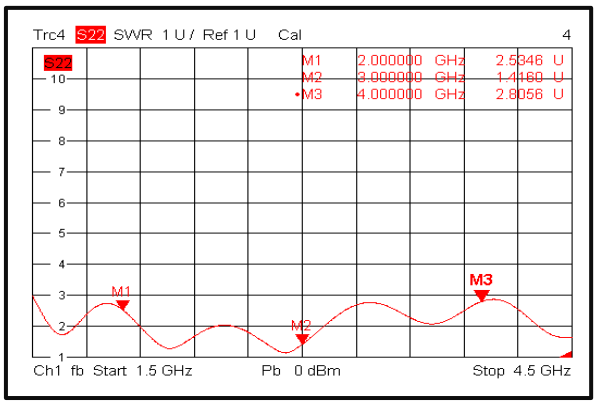
## Insertion Loss @ +25℃



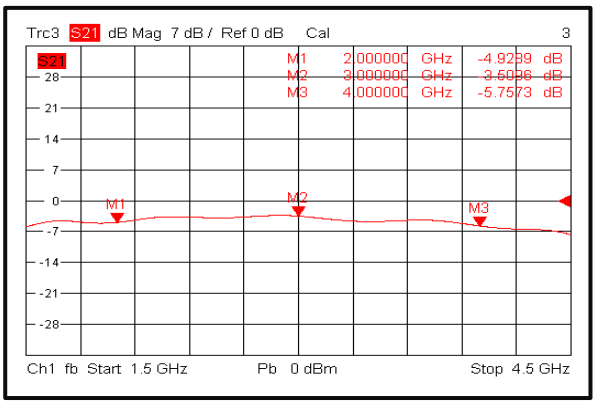

## Input VSWR @ +25℃



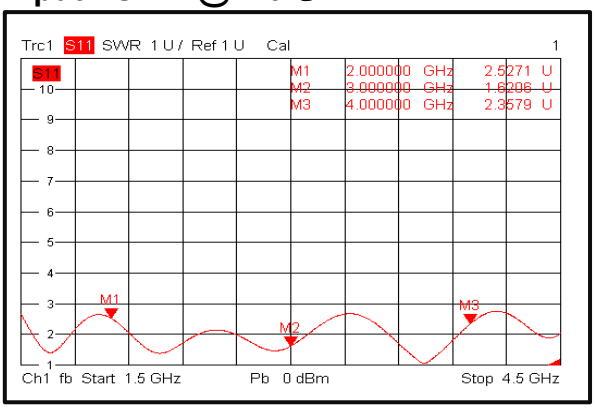

## Output VSWR @ +25℃



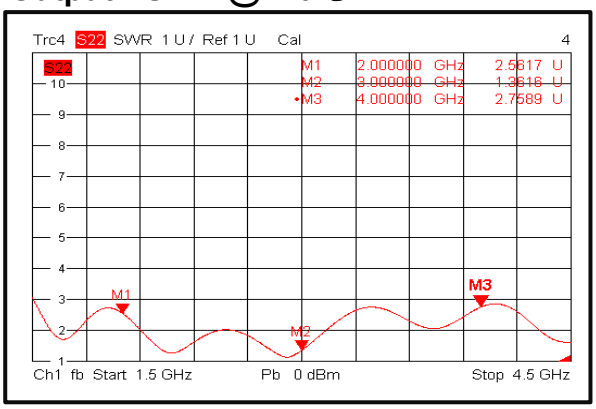

## Insertion Loss @ -40℃



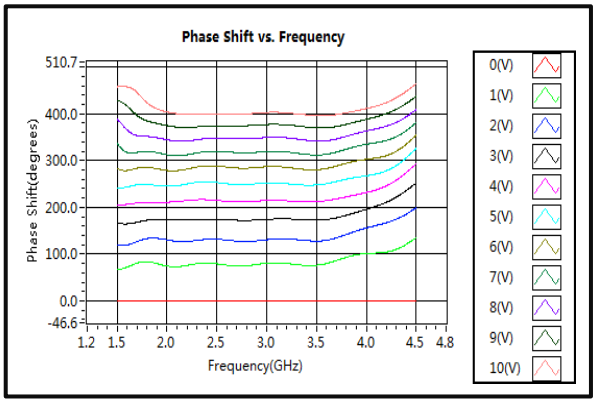

## Input VSWR @ -40℃



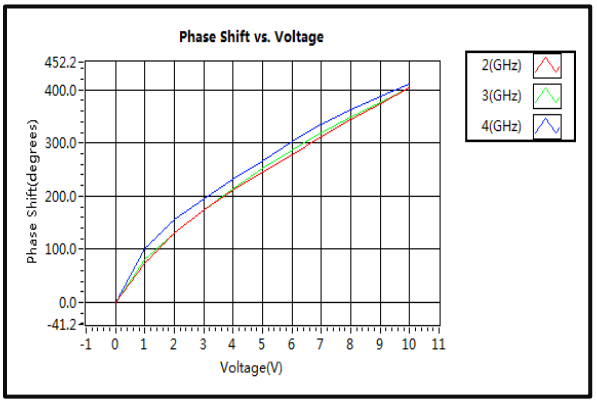

## Output VSWR @ -40℃



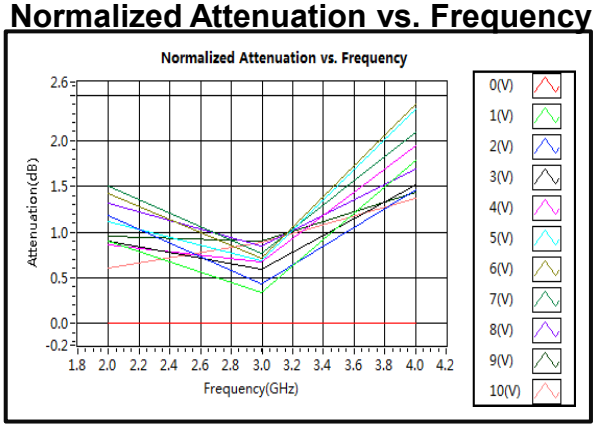
## Phase Shift vs. Frequency



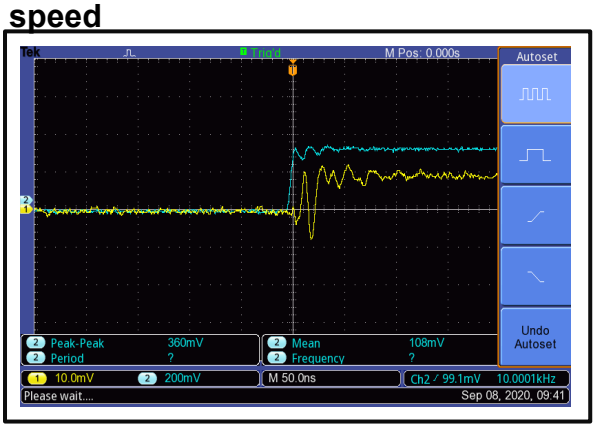

## Phase Shift vs. Voltage




## Normalized Attenuation vs. Frequency




## speed




## speed