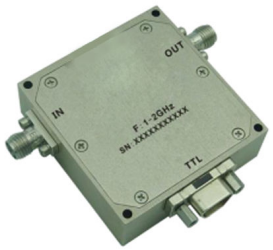
Digital Non-Dispersive 360° Phase Shifter 1 - 2GHz

Features

- Wide Band Operation 1-2GHz
- 6-Bit Phase Shift
- Temperature Range -40ºC~+85ºC
- Customization available upon request
- Hermetically sealed package up to 60,000ft available upon request.



Parameters	Min	Typ.	Max	Units
Frequency Range	1		2	GHz
Phase Range		360		°
Control Bits			6	Bit
Control Step size		5.625		°
Insertion Loss			6	dB
Insertion Loss Temperature Coefficient		0.003		dB/ °C
Phase Flatness		±5	±15	°
Input VSWR		2	3	: 1
Output VSWR		2	3	: 1
Input 1 dB Compression Point(P1dB)		27		dBm
Switching Speed		50	60	us
Weight	2.12			Ounces
Impedance	50			Ω
Bias Current (+5V)	50			mA
Input / Output Connectors	SMA-Female			
Interface and Control Connector	MICRO-D9(Female)			
Finish	Nickel plated			
Material	Aluminum			
Sealing	Hermetically Sealed（Optional）			

Absolute Maximum Ratings

Bias Voltage	+5V±10%
TTL Control Voltage	0~0.8V/3~5V
RF Input power	+27dBm

Environmental Specifications

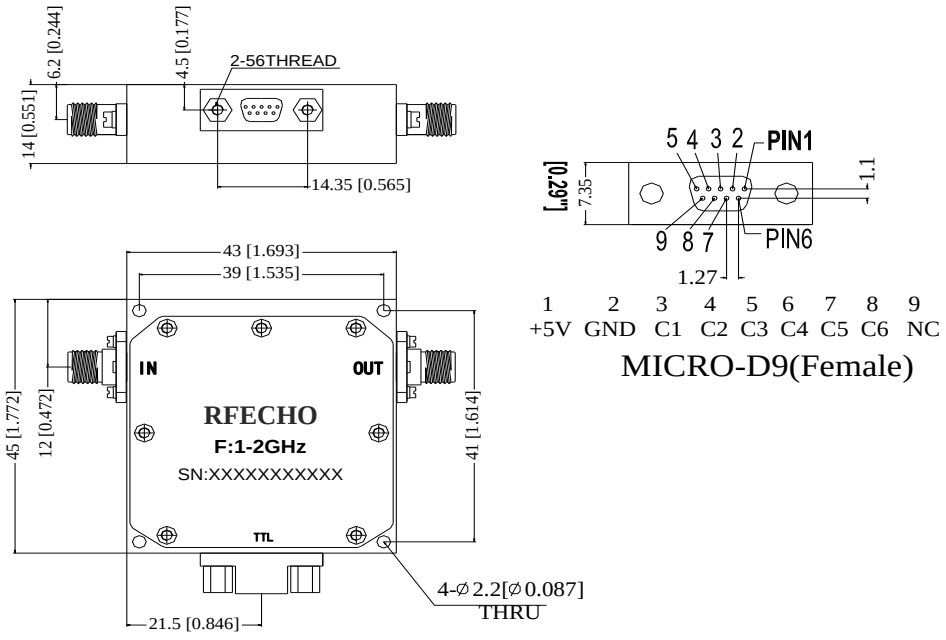
Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH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

Ordering Information

Part No.	Description
DBDP0601000200B	1-2GHz Digital Phase Shifter

Outline Drawing:

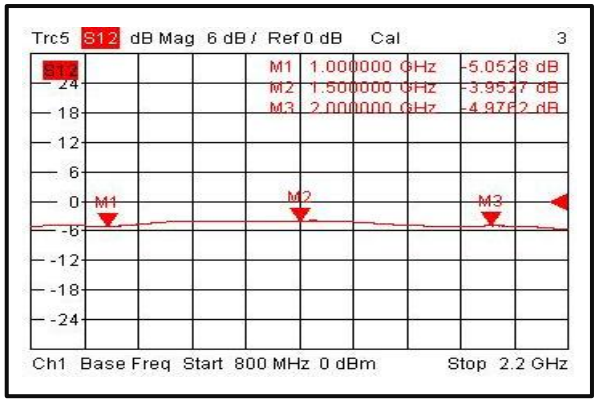
All Dimensions in mm (inches)



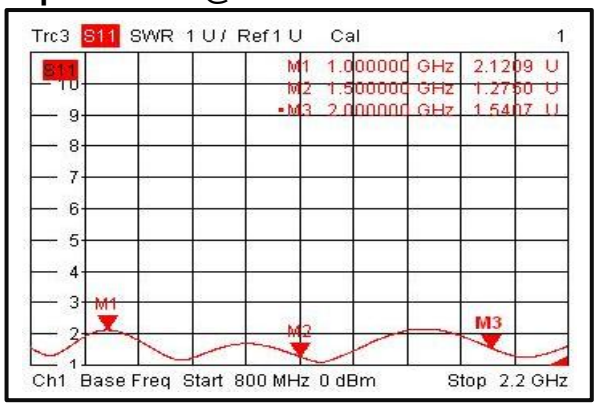
Truth Table

Control Voltage Input						Phase Shift (Degree)
C6	C5	C4	C3	C2	C1	
1	1	1	1	1	1	Reference
1	1	1	1	1	0	5.625
1	1	1	1	0	1	11.25
1	1	1	0	1	1	22.5
1	1	0	1	1	1	45
1	0	1	1	1	1	90
0	1	1	1	1	1	180
0	0	0	0	0	0	354.375

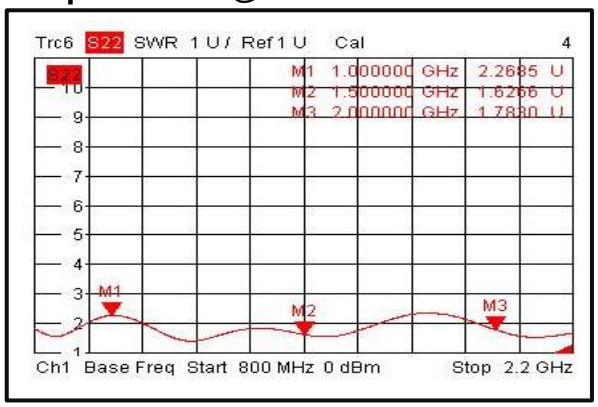
Insertion Loss@+25℃



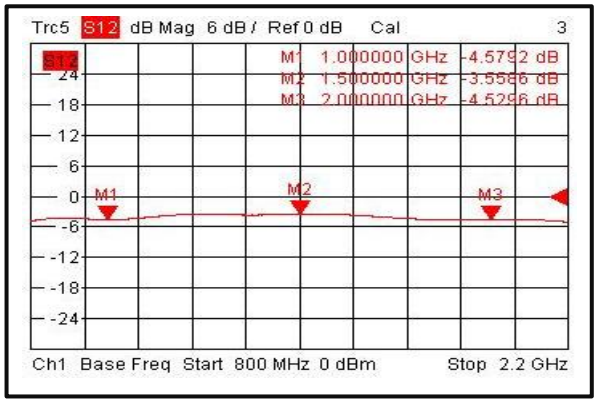
Input VSWR @+25℃



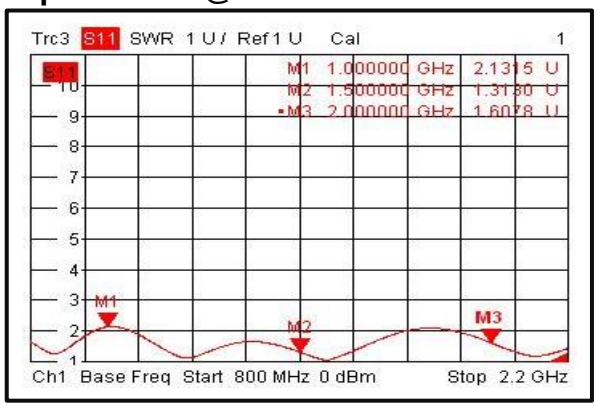
Output VSWR @+25℃



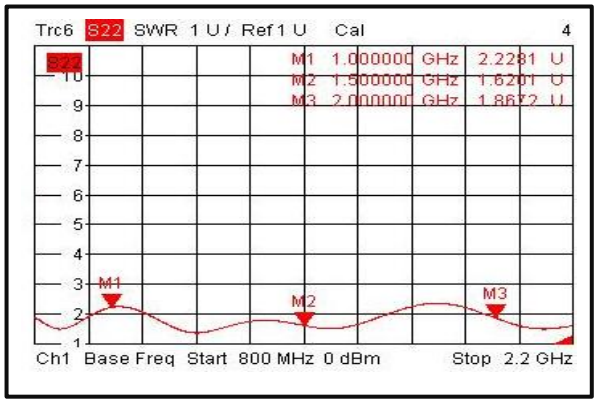
Insertion Loss@-40℃



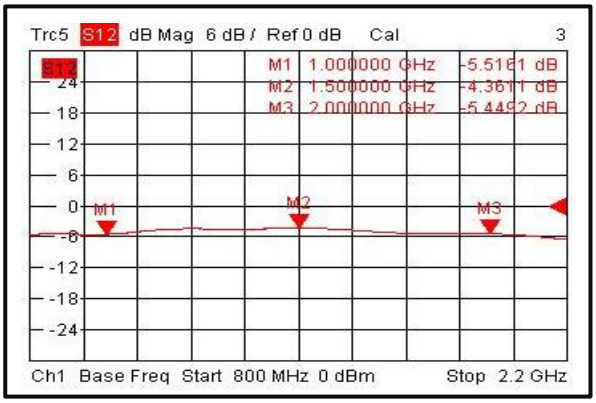
Input VSWR @-40℃



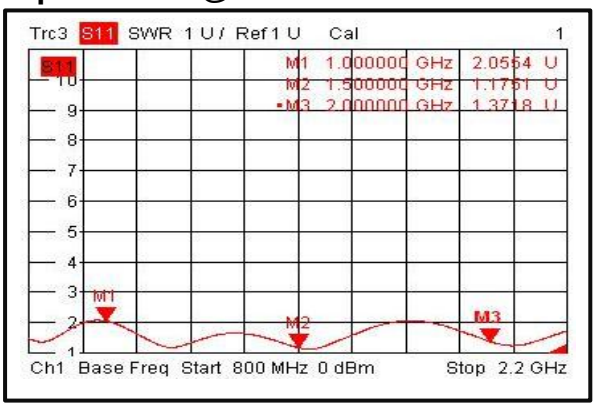
Output VSWR @-40℃



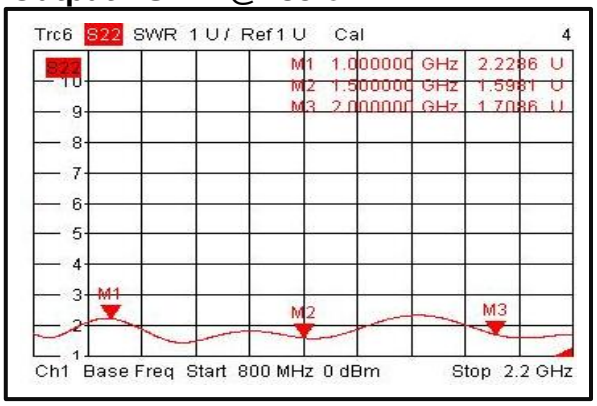
Insertion Loss@+85℃



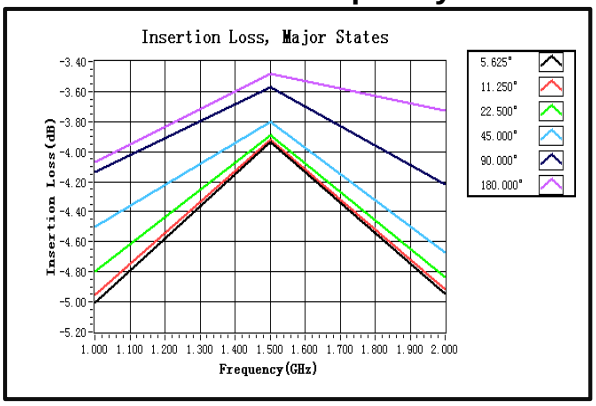
Input VSWR @+85℃



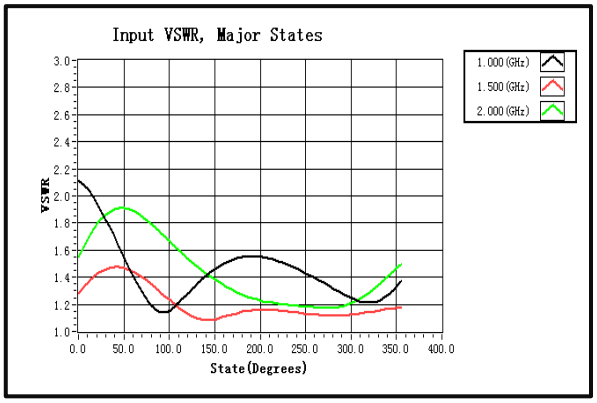
Output VSWR @+85℃



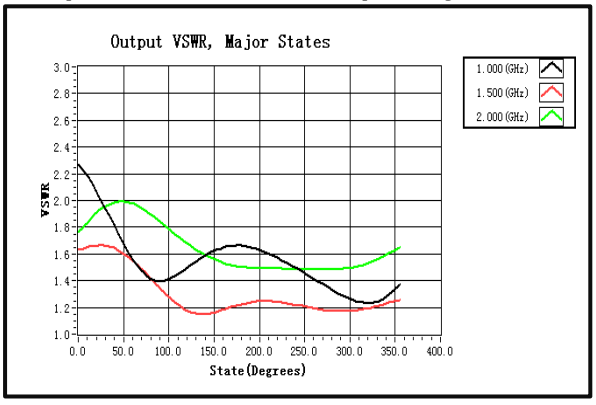
Insertion Loss vs. Frequency



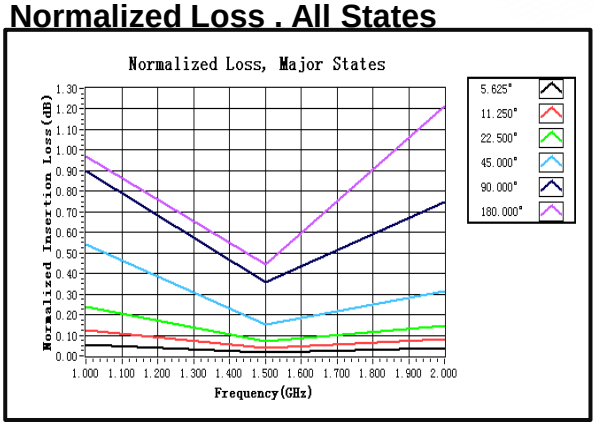
Input VSWR vs. Frequency



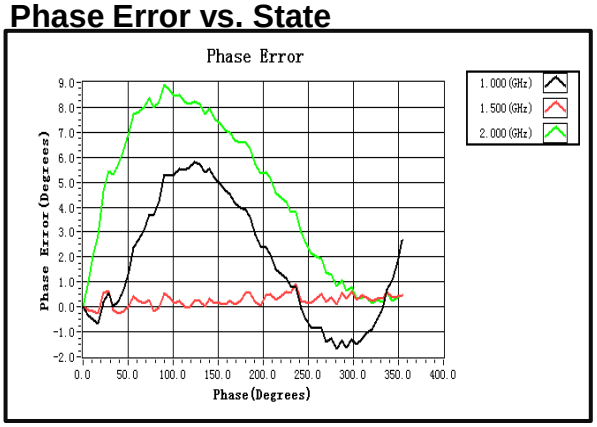
Output VSWR vs. Frequency



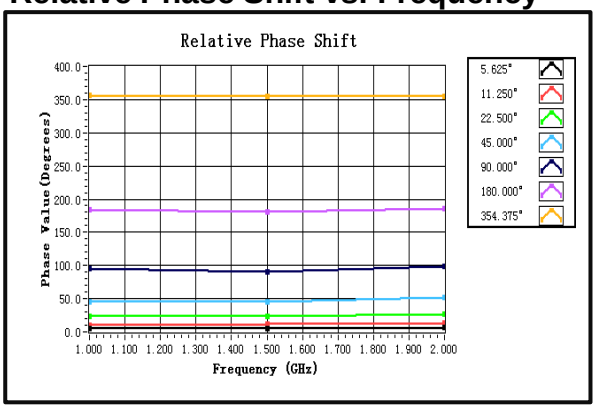
Normalized Loss . All States



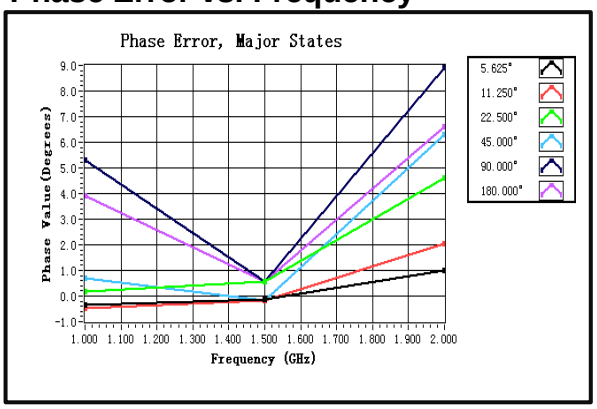
Phase Error vs. State



Relative Phase Shift vs. Frequency



Phase Error vs. Frequency



Attenuation vs. Frequency