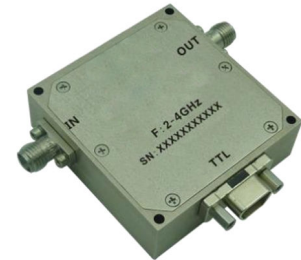




Digital Non-Dispersive 360° Phase Shifter 2 - 4GHz

Features

- Wide Band Operation 2-4GHz
- 6-Bit Phase Shift
- Temperature Range -40°C~+85°C
- Customization available upon request
- Hermetically sealed package up to 60,000ft available upon request.



Parameters	Min.	Typ.	Max.	Units
Frequency Range	2		4	GHz
Phase Range		360		deg
Control Bits			6	Bit
Control Step size		5.625		deg
Insertion Loss			6	dB
Insertion Loss Temperature Coefficient		0.003		dB/ °C
Phase Flatness		10	30	deg
Input VSWR		2	3	: 1
Output VSWR		2	3	: 1
Input 1 dB Compression Point(P1dB)		27		dBm
Switching Speed		500		us
Weight		2.2 Max.		Ounces
Impedance		50		Ω
Bias Current (+5V)		60 Max.		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%
RF Input power	+27dBm

Ordering Information

Part No.	Description
DBDP0602000400B	2-4GHz Digital Phase Shifter

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

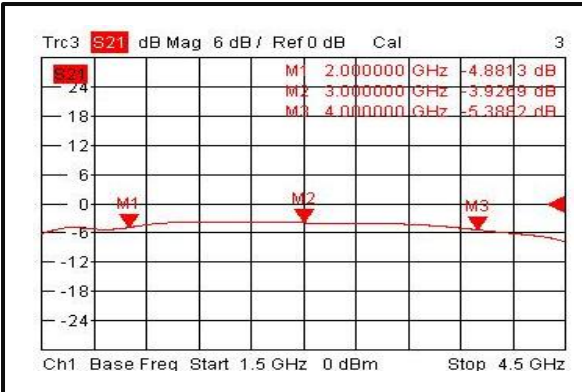
Outline Drawing:

All Dimensions in mm (inches)

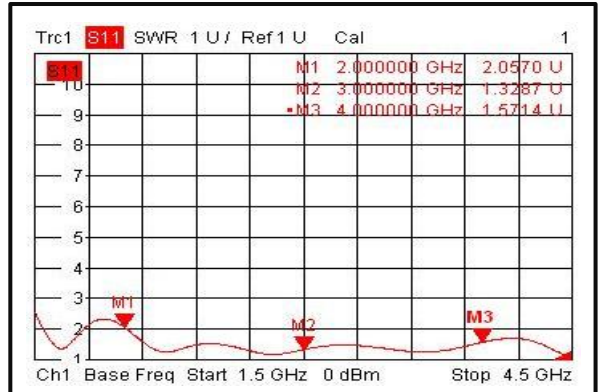
Control Voltage Input							Phase Shift (Degrees)
C6	C5	C4	C3	C2	C1		
1	1	1	1	1	1	Reference	
1	1	1	1	1	0	5.625	
1	1	1	1	0	1	11.25	
1	1	1	0	1	1	22.5	
1	1	0	1	1	1	45	
1	0	1	1	1	1	90	
0	1	1	1	1	1	180	
0	0	0	0	0	0	354.375	



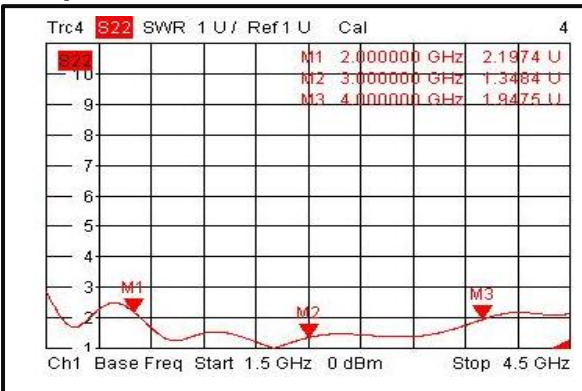
Insertion Loss @+25°C



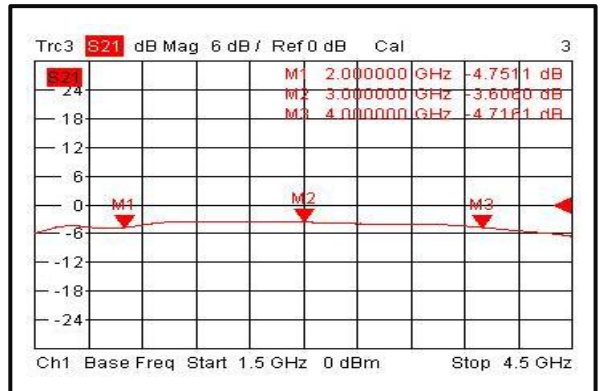
Input VSWR @+25°C



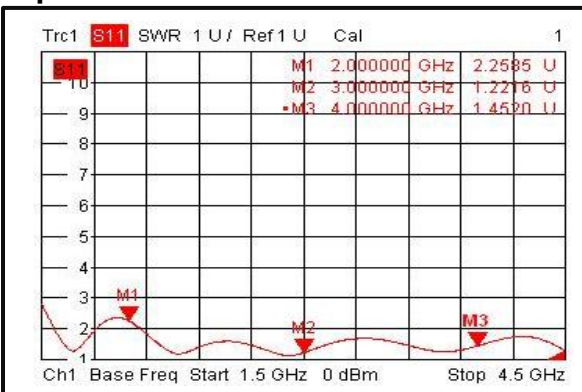
Output VSWR @+25°C



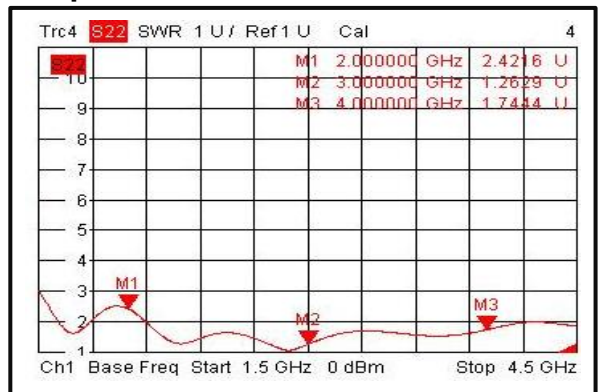
Insertion Loss @-40°C



Input VSWR @-40°C

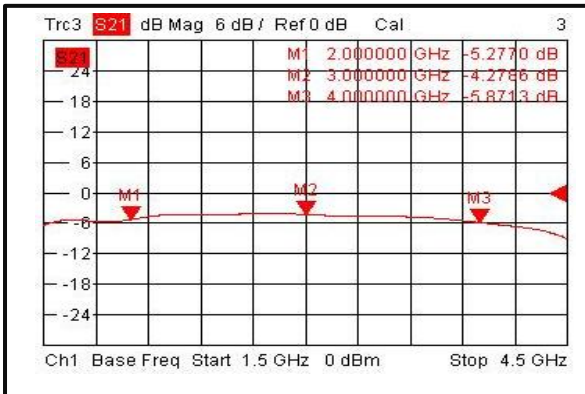


Output VSWR @-40°C

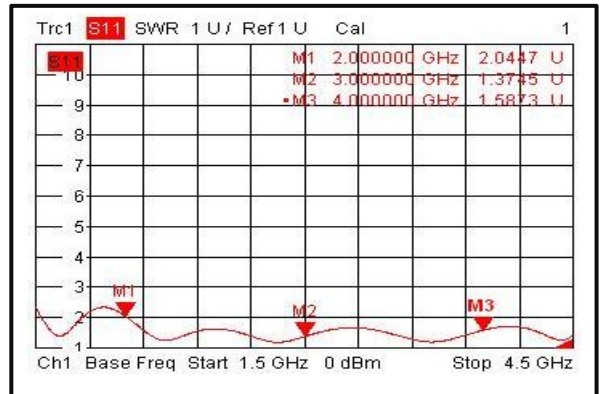




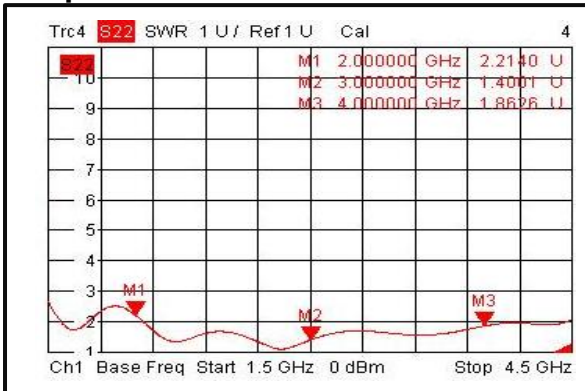
Insertion Loss @+85°C



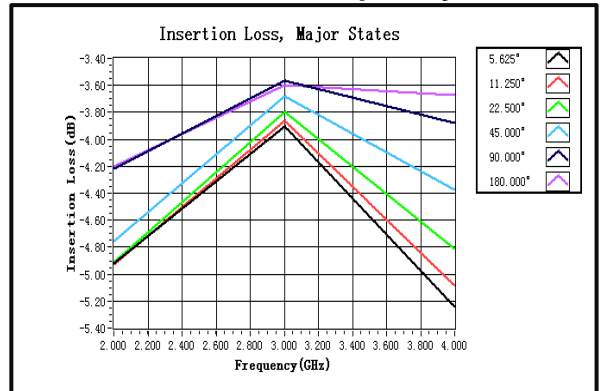
Input VSWR @+85°C



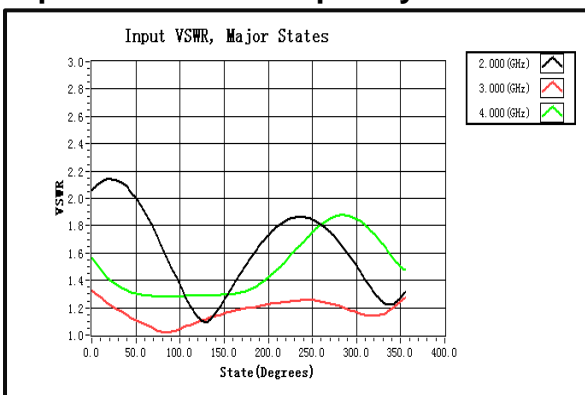
Output VSWR @+85°C



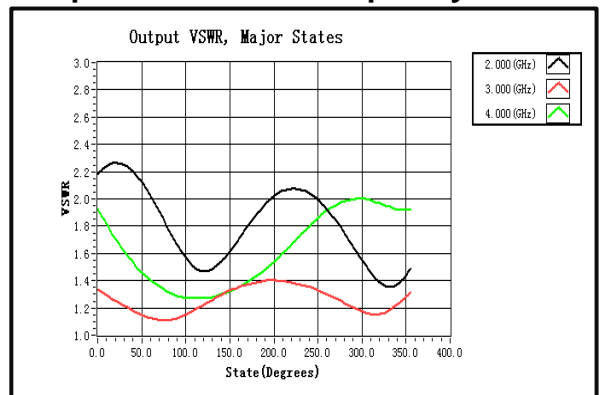
Insertion Loss vs. Frequency



Input VSWR vs. Frequency

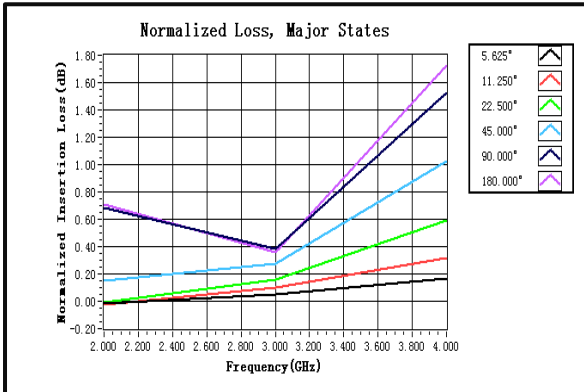


Output VSWR vs. Frequency

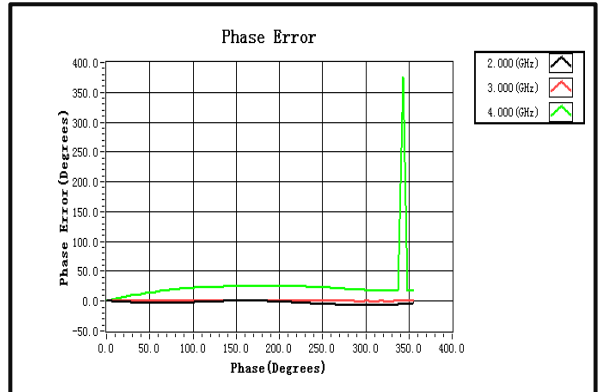




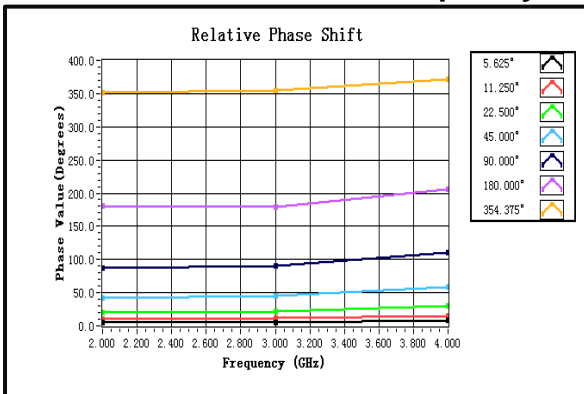
Normalized Loss . All States



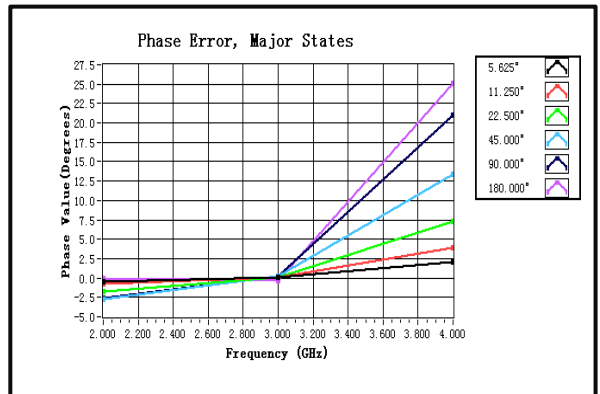
Phase Error vs. State



Relative Phase Shift vs. Frequency



Phase Error vs. Frequency



Attenuation vs. Frequency

