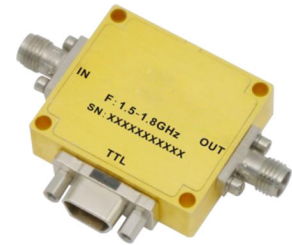




Digital Dispersive 360° Phase Shifter 1.5-1.8GHz



Features

- Wide Band Operation 1.5-1.8GHz
- 360° Phase Shift
- Fast Switching Speed
- Customization available upon request

Parameters	Min.	Typ.	Max.	Units
Frequency Range		1.5~1.8		GHz
Phase Range		360		°
Insertion Loss		4.5	5.0	dB
Insertion Loss Temperature Coefficient		0.01		dB/ °C
Phase Accuracy				
5.6 Degree Bit		± 0.8		
11.2 Degree Bit		± 0.5		
22.5 Degree Bit		± 2.5		°
45 Degree Bit		± 2.5		
90 Degree Bit		± 3		
180 Degree Bit		± 4		
Input VSWR		1.7	2	:1
Output VSWR		1.8	2	:1
RF Input power (CW)			+27	dBm
DC Power Dissipation		0.1		W
Input Power for 1 dB Compression		25		dBm
Input IP3		40		dBm
Weight		3.5		Ounces
Impedance		50		Ω
Bias Current (+5V/-5V)		20		mA
Input /Output Connectors	SMA-Female			
Control PIN	MICRO-D9 Female			
Finish	Gold Plated			
Material	Aluminum			
Seal	Hermetically Sealed (optional)			



Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%
TTL Control Voltage	0~0.8V/2~5V

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
DBDP0601500180A	1.5-1.8GHz Digital Phase Shifter

Outline Drawing:

All Dimensions in mm (inches)

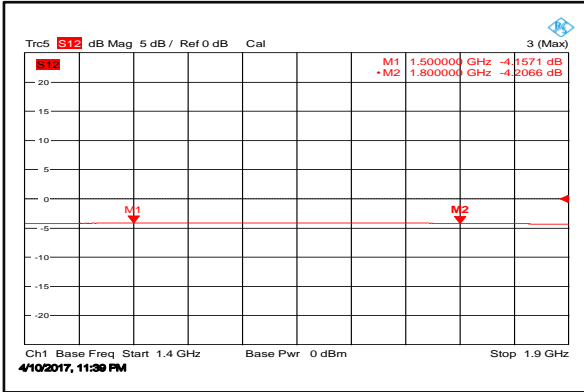
1 2 3 4 5 6 7 8 9
 +5V -5V GND C1 C2 C3 C4 C5 C6
MICRO-D9(Female)

Truth Table

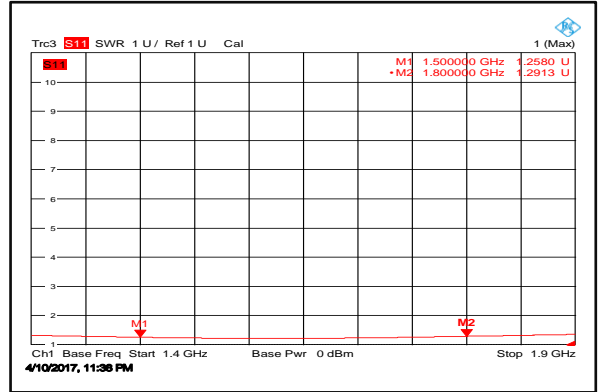
Control Voltage Input						Phase Shift (Degree)
C6	C5	C4	C3	C2	C1	
0	0	0	0	0	0	Reference
0	0	0	0	0	1	5.6
0	0	0	0	1	0	11.25
0	0	0	1	0	0	22.5
0	0	1	0	0	0	45
0	1	0	0	0	0	90
1	0	0	0	0	0	180
1	1	1	1	1	1	360



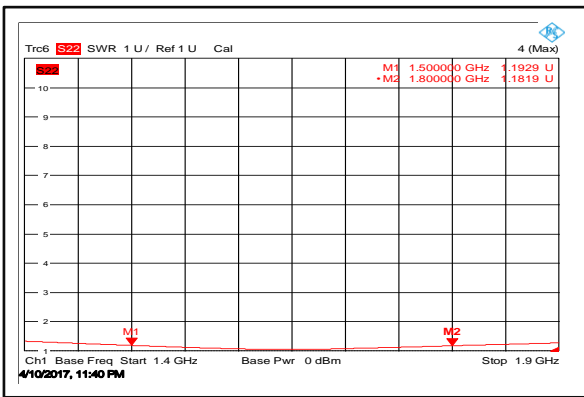
Insertion Loss



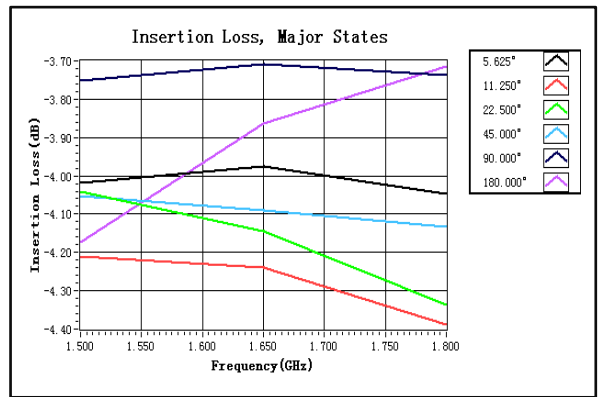
Input VSWR



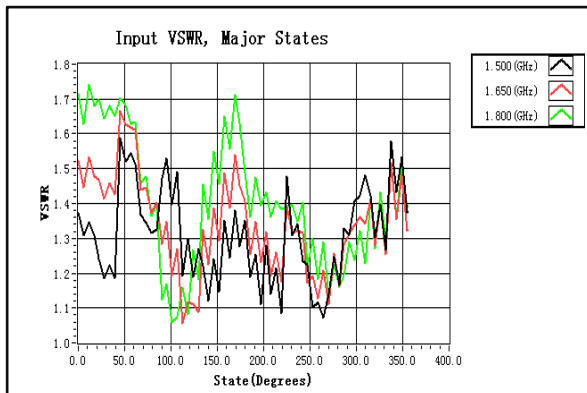
Output VSWR



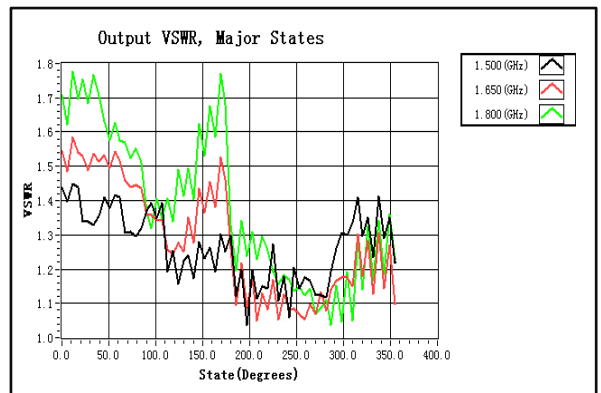
Insertion Loss vs. Frequency



Input VSWR

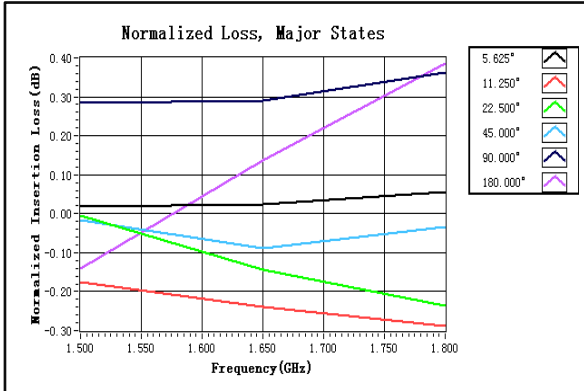


Output VSWR

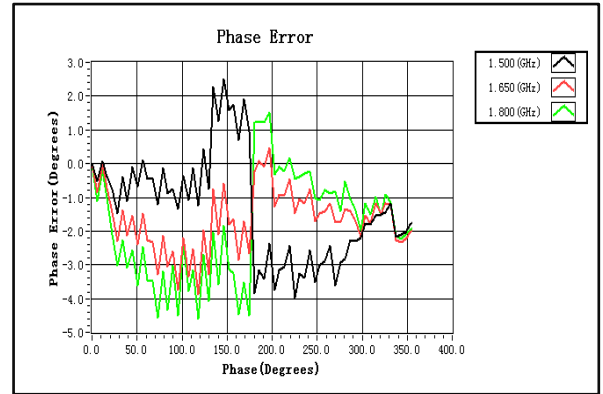




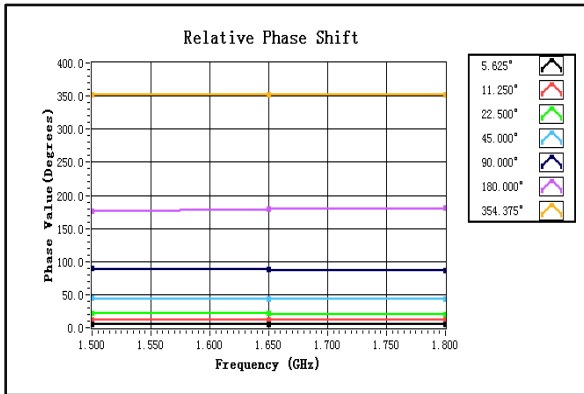
Normalized Loss . All States



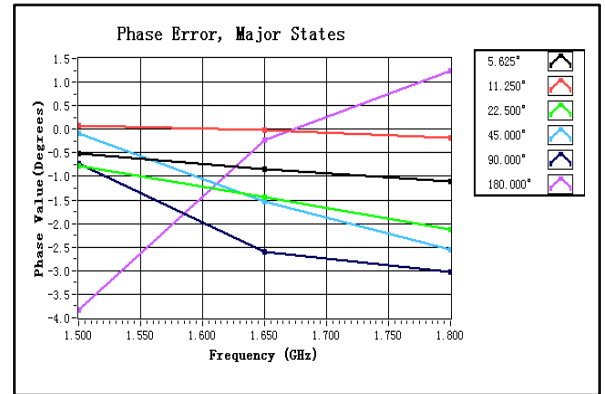
Phase Error vs. State



Relative Phase Shift vs. Frequency



Phase Error vs. Frequency



Attenuation vs. Frequency

