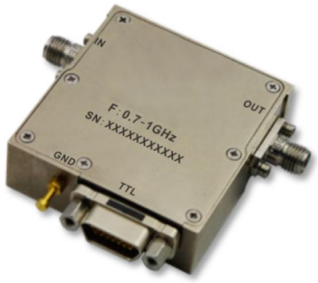
RFecho
A Gateway to RFWorld

Digital Non-Dispersive 360° Phase Shifter 0.7 - 1GHz



Features

- Wide Band Operation 0.7-1GHz
- 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	0.7		1	GHz
Phase Range		360		°
Control Bits			6	Bit
Control Step size		5.625		°
Insertion Loss		4.8	6.0	dB
Insertion Loss Temperature Coefficient		0.008		dB/ °C
Phase Flatness		±2	±25	°
Input VSWR		1.5	2.0	: 1
Output VSWR		1.5	2.0	: 1
Input 1 dB Compression Point(P1dB)			23	dBm
Weight	1.76			Ounces
Impedance	50			Ω
Bias Current (+12V)	20			mA
Input / Output Connectors	SMA-Female			
Interface and Control Connector	MICRO-D15 (Female)			
Finish	Nickel plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

Absolute Maximum Ratings

Biasing	+12V±10%
TTL Control Voltage	0~0.8V/3~5V

Environmental Specifications

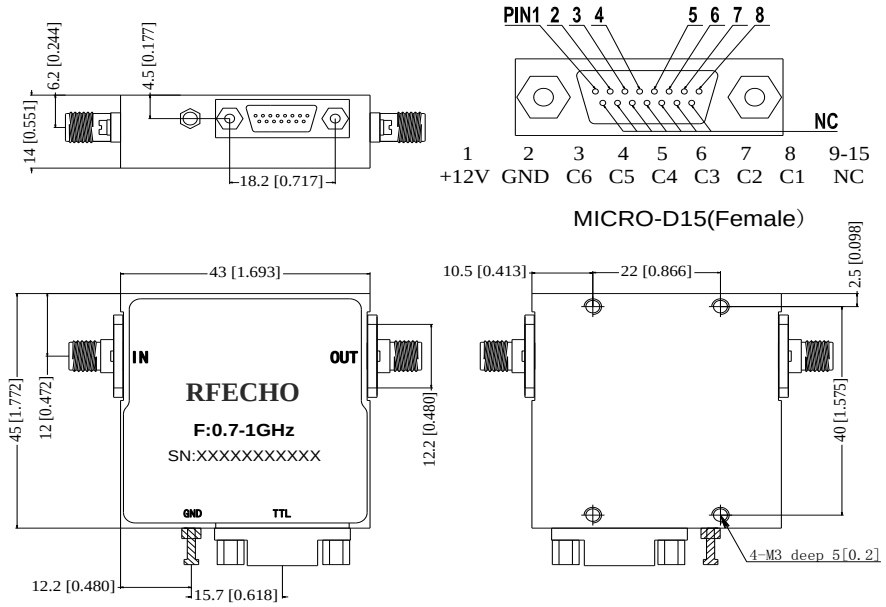
Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH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

Ordering Information

Part No.	Description
DBDP0700700100A	0.7-1GHz Digital Phase Shifter

Outline Drawing:

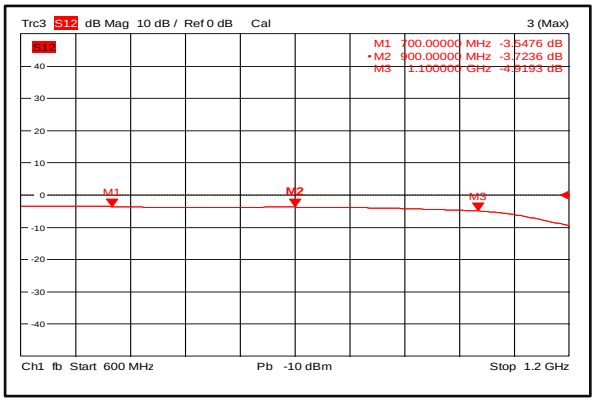
All Dimensions in mm (inches)



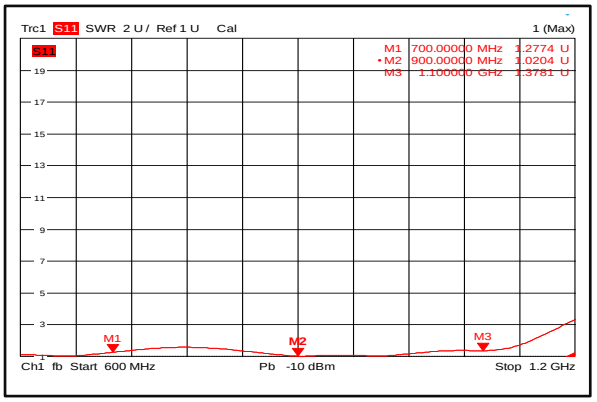
Truth Table

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

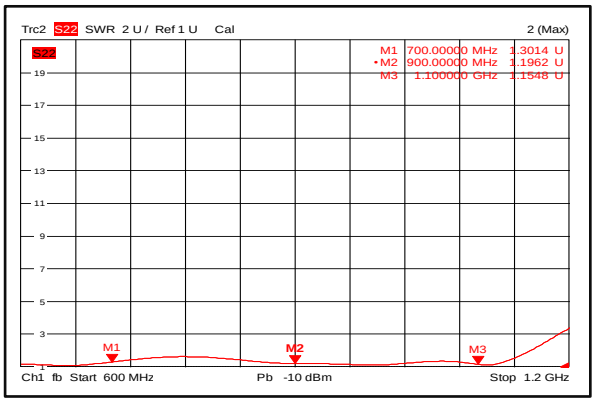
Insertion Loss



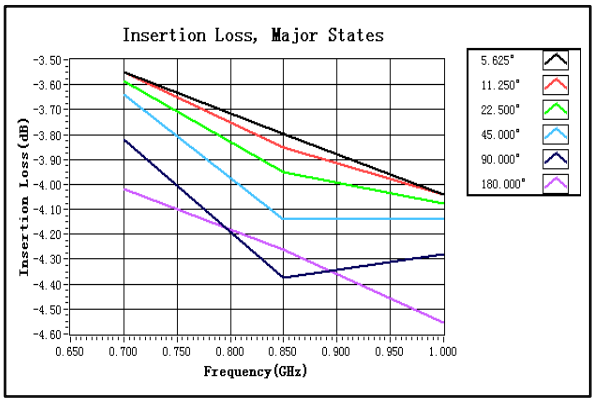
Input VSWR



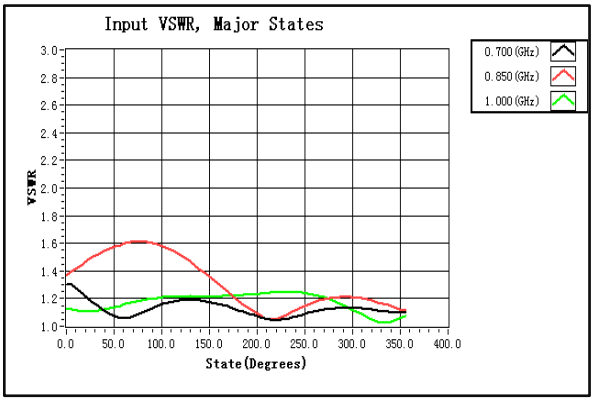
Output VSWR



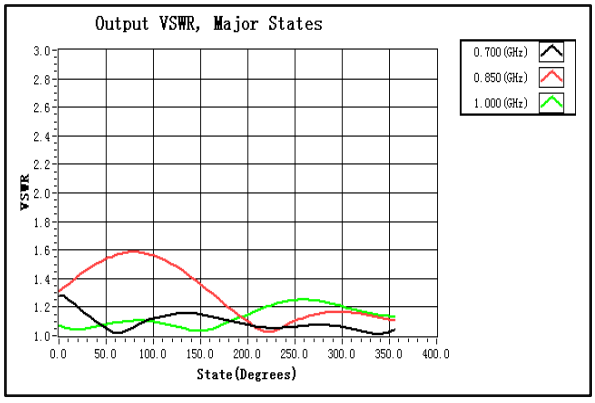
Insertion Loss vs. Frequency



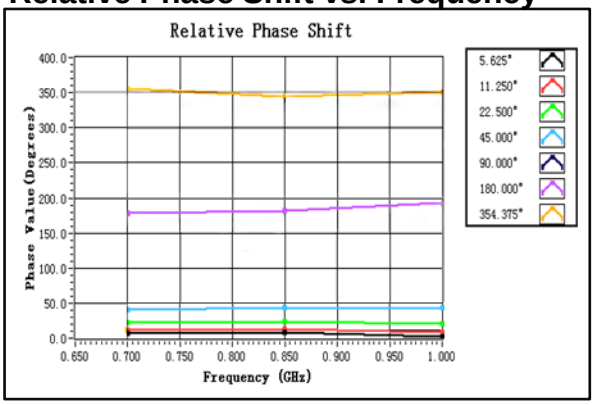
Input VSWR vs. Frequency



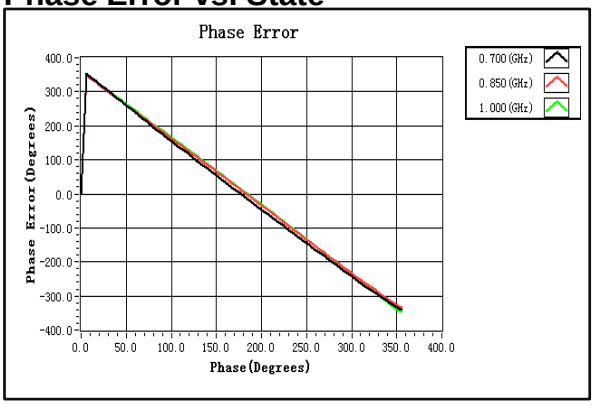
Output VSWR vs. Frequency



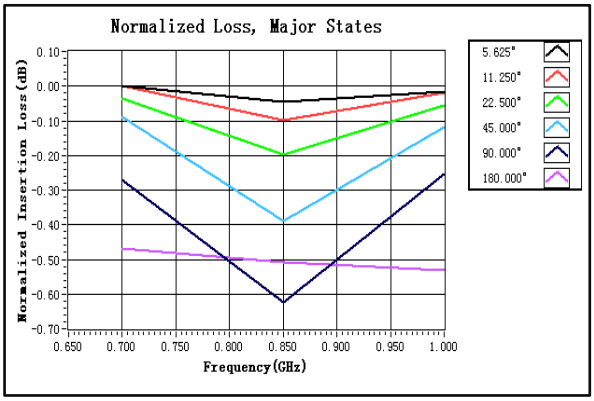
Relative Phase Shift vs. Frequency



Phase Error vs. State



Normalized Loss . All States



Attenuation vs. Frequency