

**Features**

- Wide Band Operation 15-29GHz
- 360° Phase Shift
- Low Insertion Loss and Low Phase Error
- Single Control Operation
- Customization available upon request



Parameter	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	15		22	22		29	GHz
Phase Range		360			360		deg
Insertion Loss		10	12		20	26	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C
Phase Flatness		±15			±15		deg
Control Voltage	0	10		0	10		V
Input VSWR		2.5			2.2		:1
Output VSWR		2.5			2.5		:1
0.1dB Compression Point (P0.1dB)		20			20		dBm
Current	5						mA
Impedance	50						Ω
Weight	0.35 Max.						ounces
Input / Output Connectors	2.92mm-Female						
Finish	Gold Plated						
Material	Aluminum						
Package Sealing	Hermetically Sealed (Optional)						

**QOTANA TECHNOLOGIES**

Voltage Control Phase Shifter 15-29GHz

**Absolute Maximum Ratings**

Control Voltage	0~ 15V
RF Input power	+20dBm

**Environmental Specifications**

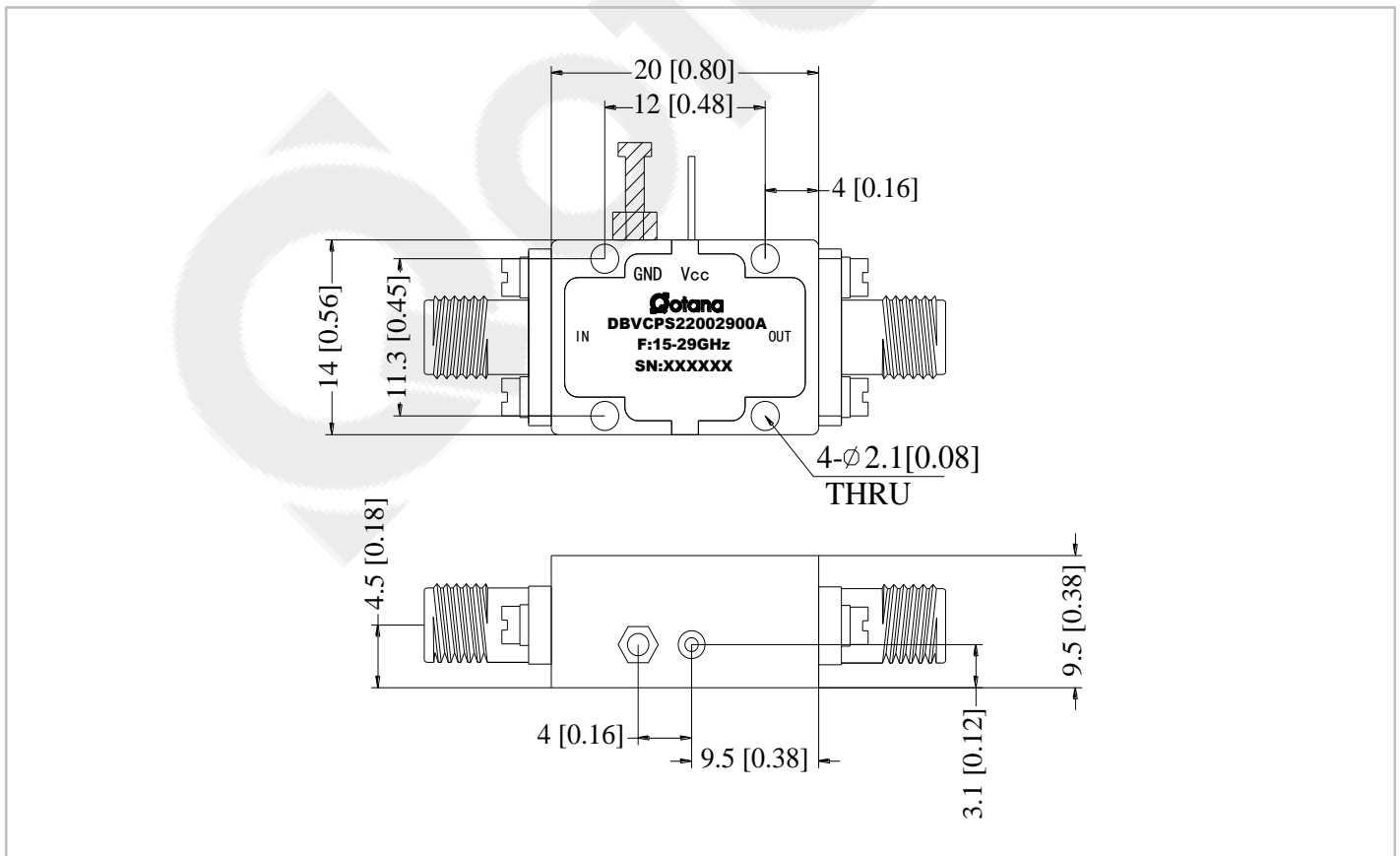
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

**Ordering Information**

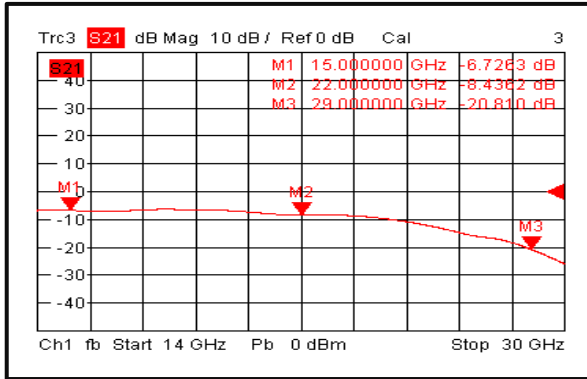
Part No.	Description
DBVCPS22002900A	15-29GHz Voltage Phase Shifter

**Outline Drawing:**

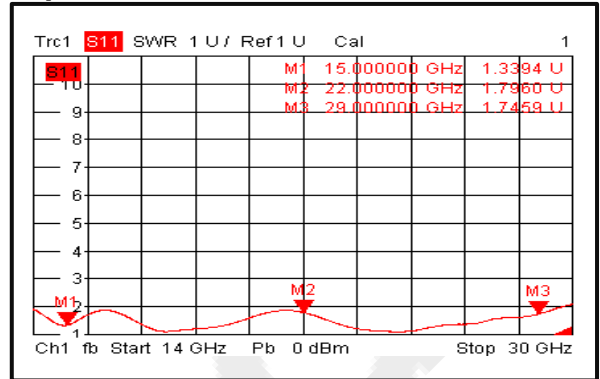
All Dimensions in mm (inches)



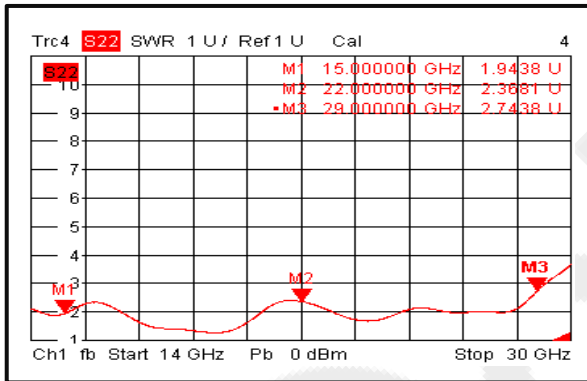
Insertion Loss @ +25°C



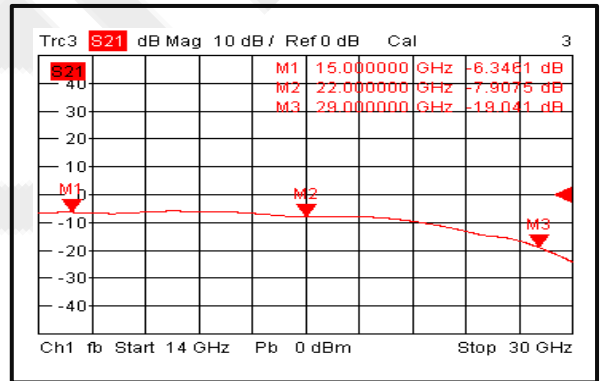
Input VSWR @ +25°C



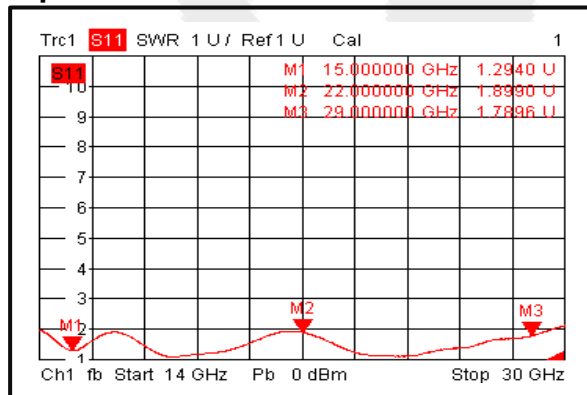
Output VSWR @ +25°C



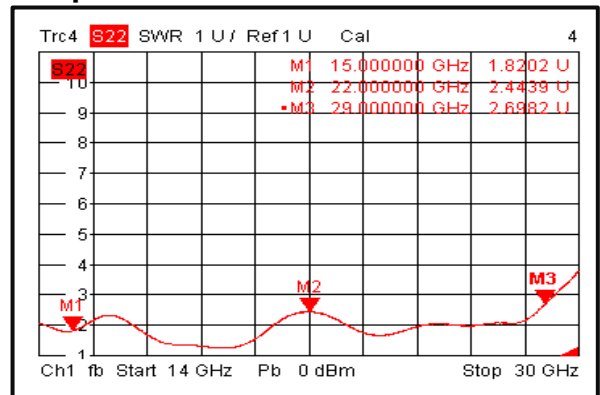
Insertion Loss @ -40°C



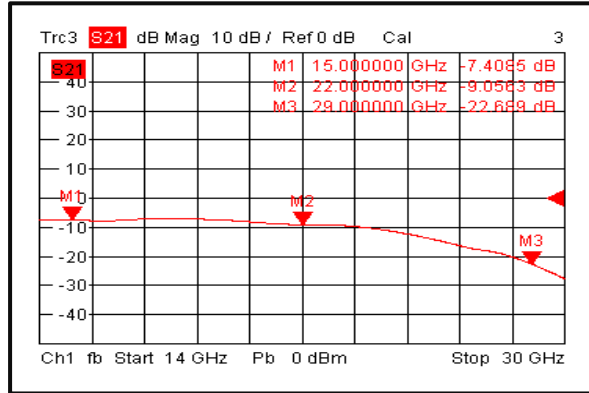
Input VSWR @ -40°C



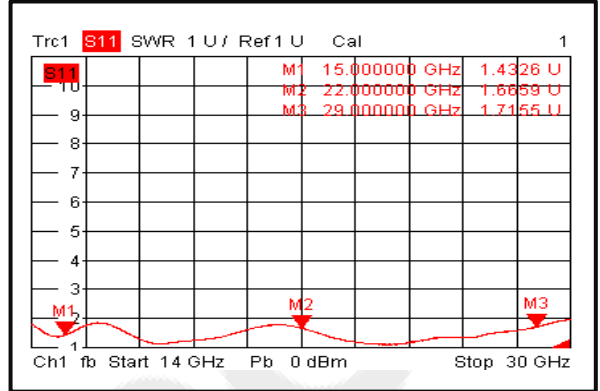
Output VSWR @ -40°C



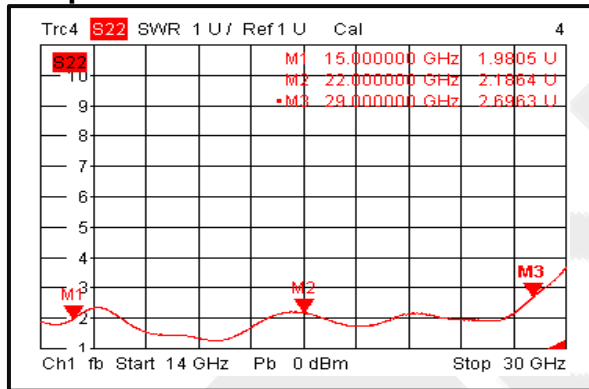
Insertion Loss @ +85°C



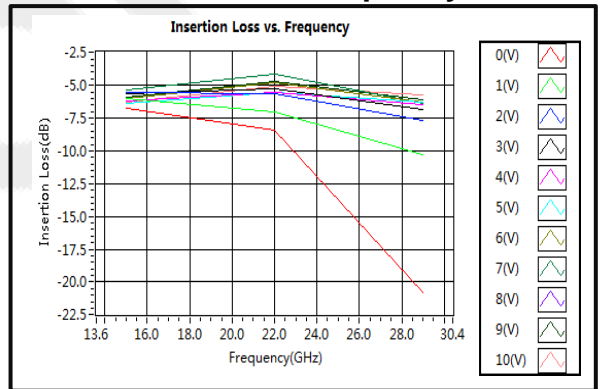
Input VSWR @ +85°C



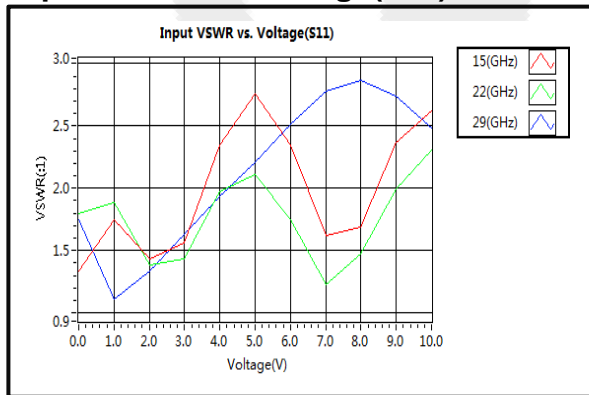
Output VSWR @ +85°C



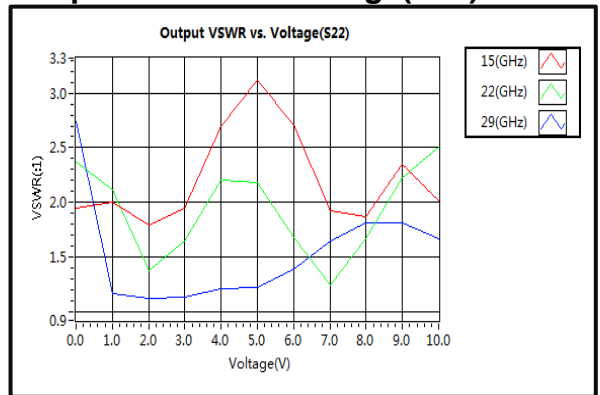
Insertion Loss vs. Frequency



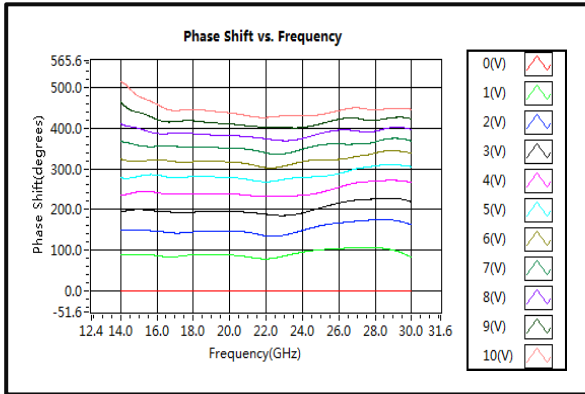
Input VSWR vs. Voltage(S11)



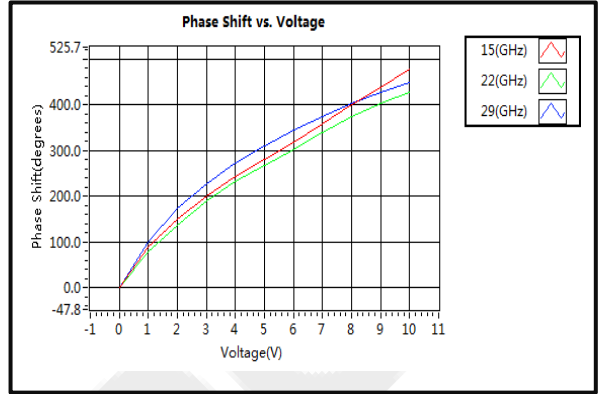
Output VSWR vs. Voltage(S22)



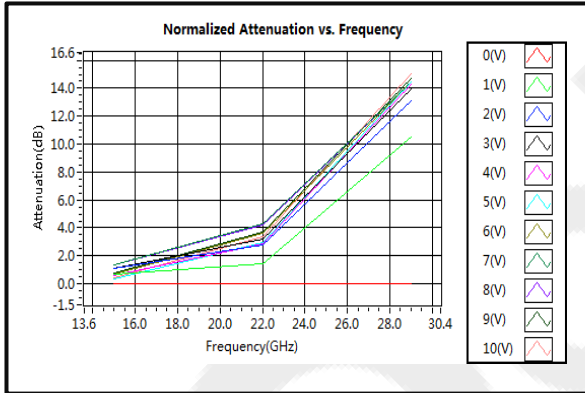
**Phase Shift vs. Frequency**



**Phase Shift vs. Voltage**



**Normalized Attenuation vs. Frequency**



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