

**Features**

- Wide Band Operation 138-186MHz
- 180° Phase Shift
- Low Insertion Loss and Low Phase Error
- Single Control Operation
- Customization available upon request



Parameters	Min	Typ.	Max	Units
Frequency Range	10MHz to 170Mhz (30% BW) (138~186MHz Shown)			MHz
Phase Range		180		deg
Phase Error		±15		deg
Insertion Loss		1.0	1.3	dB
Insertion Loss Temperature Coefficient		0.01		dB/ °C
Input VSWR		1.5	2.0	:1
Output VSWR		1.5	2.0	:1
0.1dB Compression Point (P0.1dB)		30		dBm
Control Voltage	0	10		V
Current Consumption		5		mA
Impedance		50		Ω
Weight		2.12		Ounces
Input / Output Connectors	SMA-Female			
Finish	Nickel Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

**QOTANA TECHNOLOGIES**

**Voltage Control Phase Shifter 138-186MHz**

**Absolute Maximum Ratings**

Control Voltage	0~ 15V
RF Input Power	+30dBm

**Environmental Specifications**

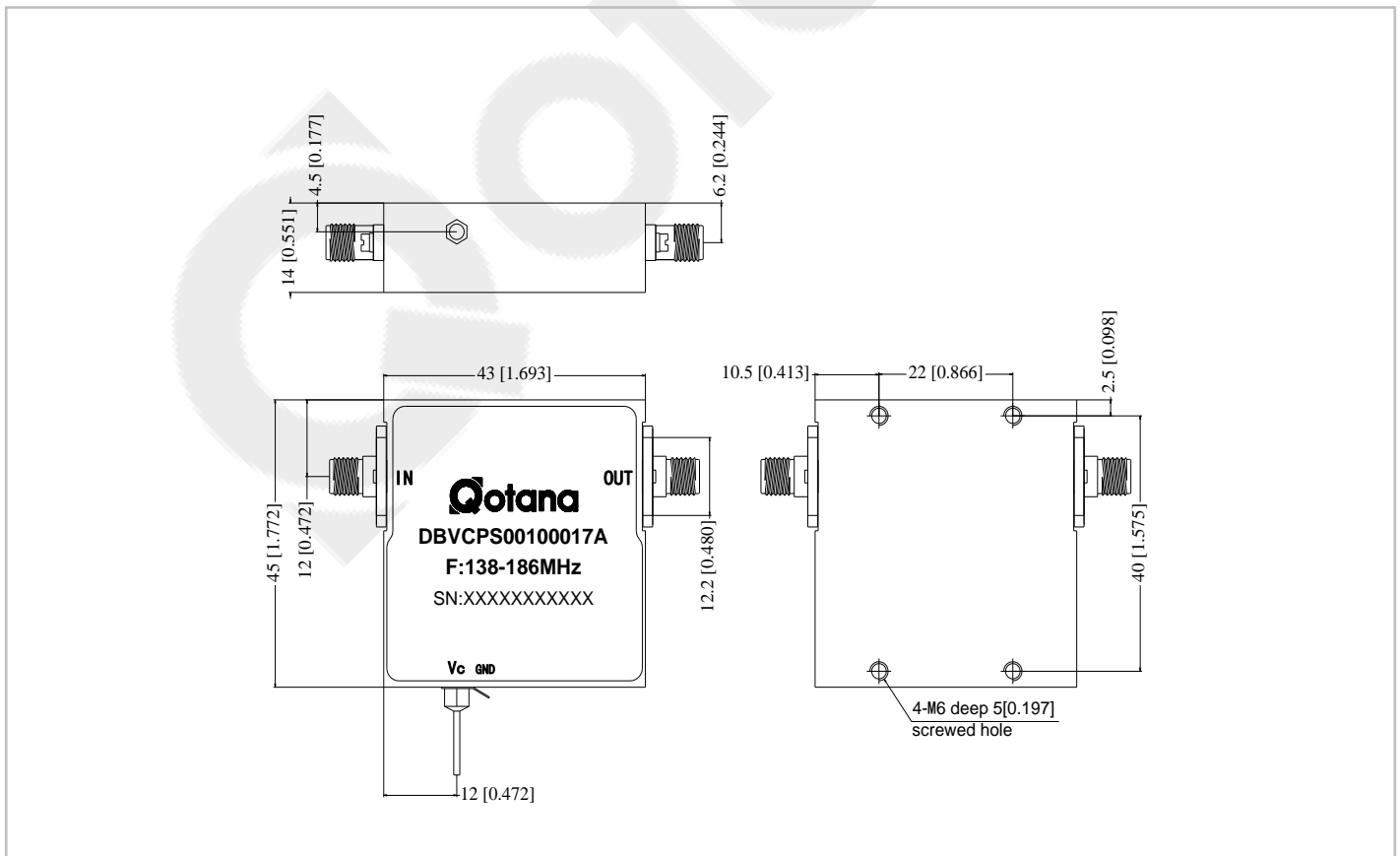
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

**Ordering Information**

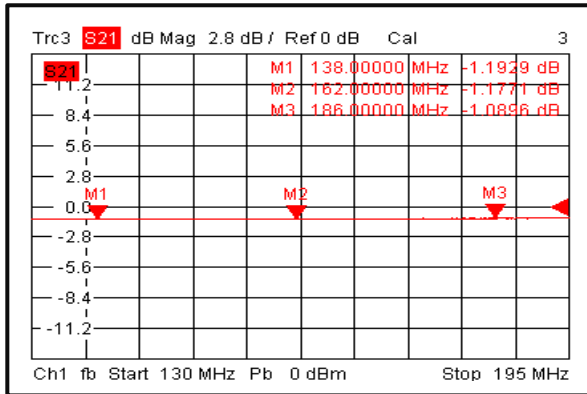
Part No.	Description
DBVCPS00100017A	138-186MHz Voltage Phase Shifter

**Outline Drawing:**

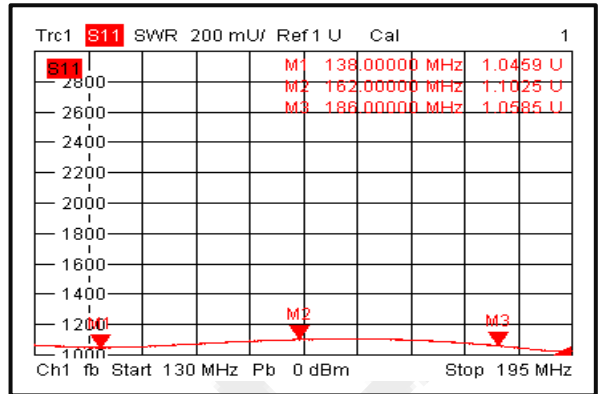
All Dimensions in mm (inches)



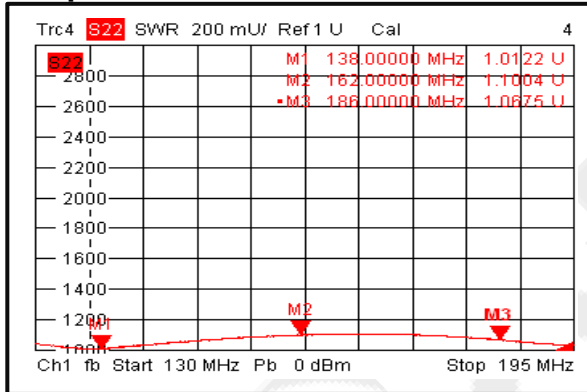
Insertion Loss @ +25°C



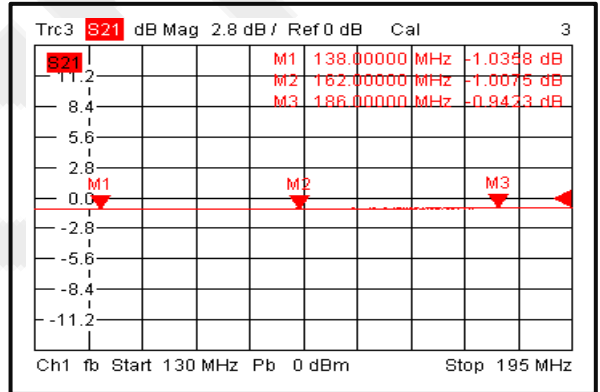
Input VSWR @ +25°C



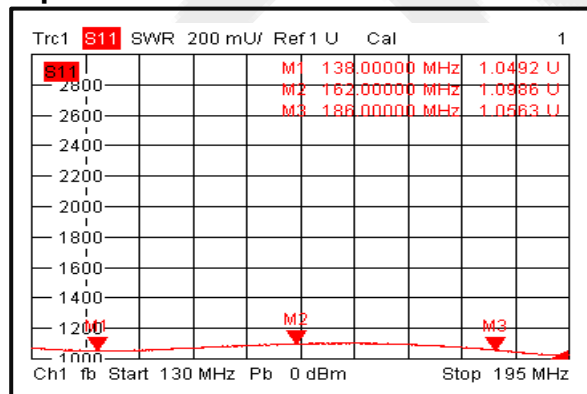
Output VSWR @ +25°C



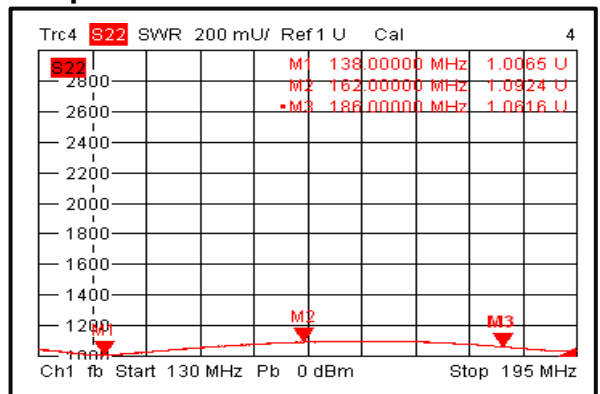
Insertion Loss @ -40°C



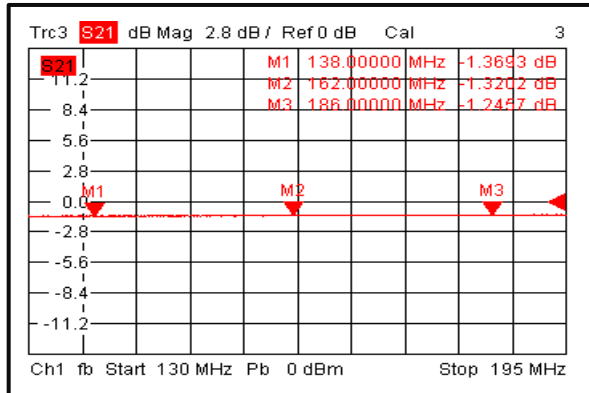
Input VSWR @ -40°C



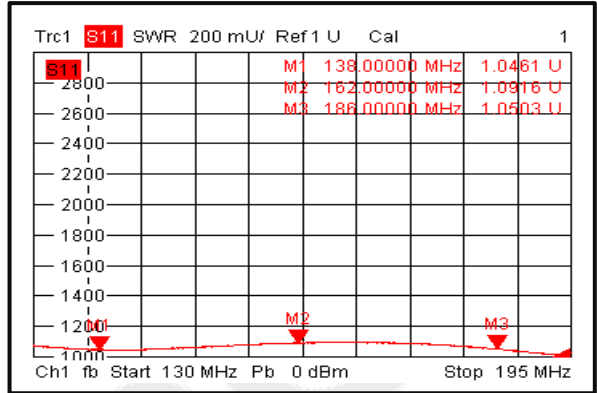
Output VSWR @ -40°C



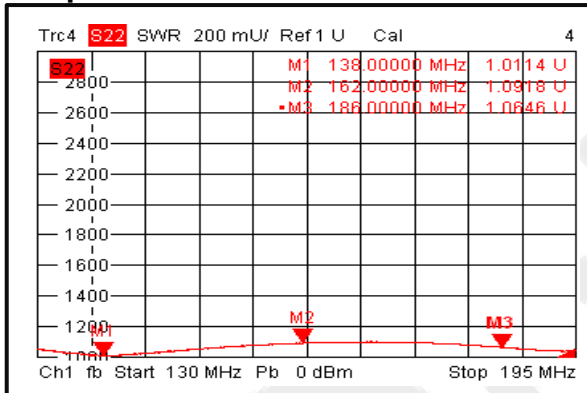
Insertion Loss @ +85°C



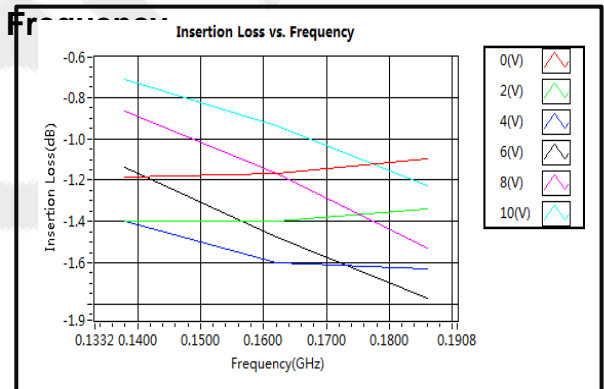
Input VSWR @ +85°C



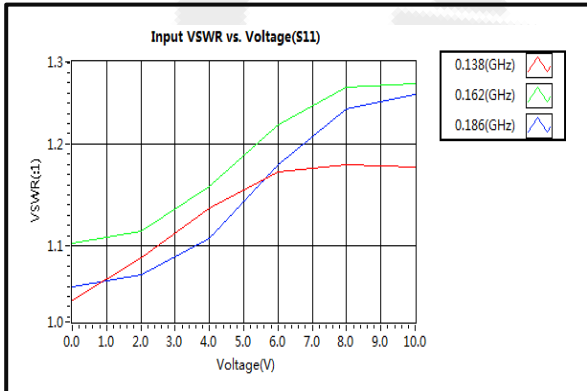
Output VSWR @ +85°C



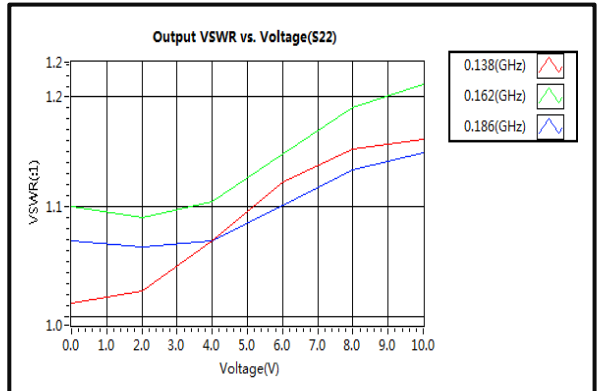
Insertion Loss vs. Frequency



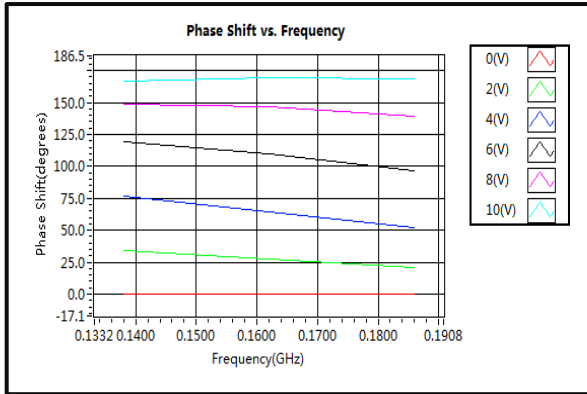
Input VSWR vs. Voltage



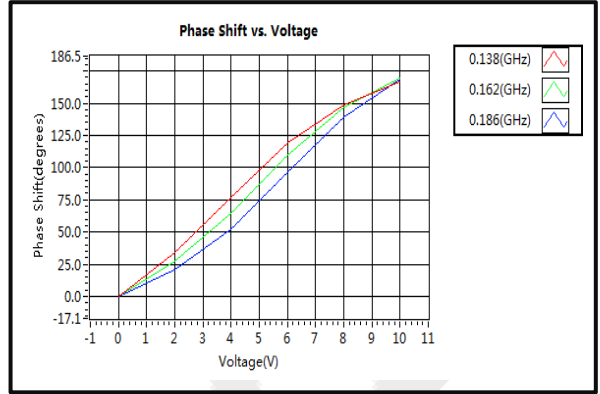
Output VSWR vs. Voltage



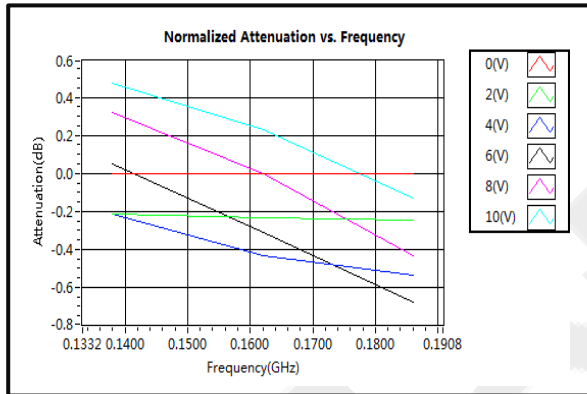
**Phase Shift vs. Frequency**



**Phase Shift vs. Voltage**



**Attenuation vs. Frequency**



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