

# Phase Shifters

## Line Stretcher Type

### 30, 60, & 90° per GHz Phase Shift

- DC - 18 GHz Frequency Range
- Low Insertion Loss
- 50 Watts average power
- Rugged Construction

This series of broad band Line Stretcher type Phase Shifters were designed to provide phase slope adjustment in a fixed system of microwave components. They utilize precision internal airline design techniques in small, lightweight, ruggedly constructed units that consistently perform phase slope adjustment functions through the use of a smooth, continuous, trombone type mechanism that allows precise field adjustment and firm locking arrangement.



#### SPECIFICATIONS

**Frequency Range:** DC - 18.0 GHz

**Impedance:** 50 Ohms

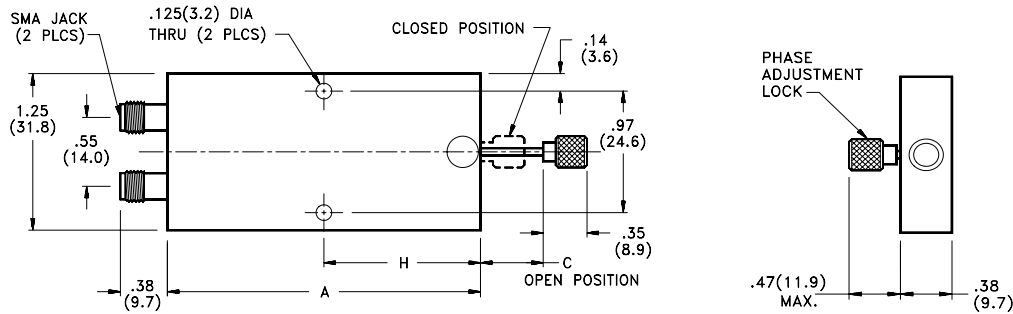
**VSWR:** see chart

**Insertion Loss:** see chart

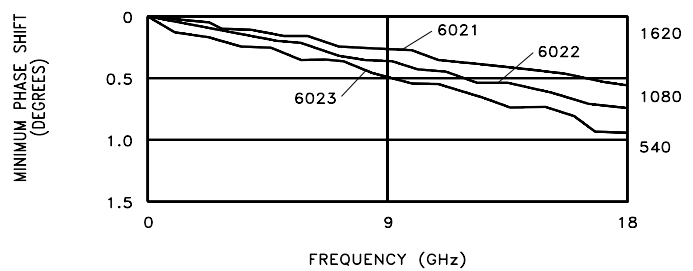
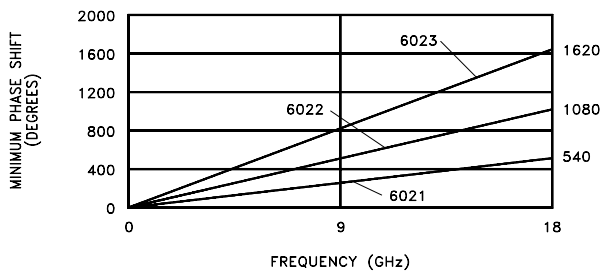
**Power:** 50 Watts average, 1kW Peak

**Operating Temperature:** -55 °C - +125 °C

**Connectors:** Passivated Stainless Steel SMA Female\*



#### Typical Performance



Frequency (GHz)	Model Number	Phase Shift (deg/GHz)	VSWR	Insertion Loss	Dimensions - in (mm)			Weight	
					A	C	H	oz	gm
DC - 18.0	PHS-6021-FF-SMA-79	30	1.3, dc-10 GHz 1.5, 10-18 GHz	0.3 + .025 f	2.50 (63.5)	0.50 (12.7)	1.25 (31.8)	2.5	71.4
DC - 18.0	PHS-6022-FF-SMA-79	60	1.4, dc-10 GHz 1.6, 10-18 GHz	0.3 + .035 f	3.50 (88.9)	1.00 (25.4)	1.75 (44.5)	3.5	100.0
DC - 18.0	PHS-6023-FF-SMA-79	90	1.5, dc-10 GHz 1.7, 10-18 GHz	0.3 + .045 f	4.50 (114.3)	1.50 (38.1)	2.25 (57.2)	4.5	128.6

Note: SMA male, TNC, or Type N output connectors, either male or female, are also available by substituting TNC or NNN for SMA in the Model Number. If an interface gender change is desired, substitute MM or MF for FF in the Model Number. Please note that the housing thickness will increase accordingly when larger connectors are selected.