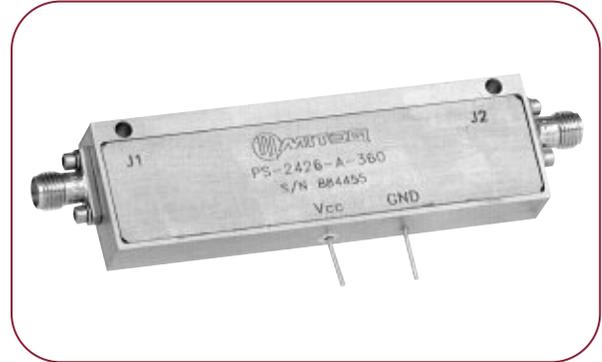


## ANALOG PHASE SHIFTERS

### FEATURES

- Optimized for fast switching speeds (down to 20 ns maximum)
- Optimized for lowest phase deviation over band
- RMS phase error  $\leq 5^\circ$  typical
- Low insertion loss
- Power handling up to 30 dBm
- OIP3 (typically 25 dBm)
- Hermetic sealing available



### 2.4-2.6 GHz

#### MODEL APS-02400260-270-1F-1FS

Frequency range	2.4-2.6 GHz
Insertion loss	10 dB maximum
Phase shift	0-270° minimum
Phase error	$\pm 5^\circ$ pk-pk maximum
Input voltage range	0 to +15 VDC
Switching speed	2 $\mu$ s maximum
Insertion loss variation over phase noise	$\pm 3$ dB maximum
Input VSWR	2:1 maximum
Output VSWR	2:1 maximum
RF input power	+10 dBm maximum
Outline drawing	174341

### 4.9-5.1 GHz

#### MODEL APS-04900510-180-1F-1FS

Frequency range	4.9-5.1 GHz
Insertion loss	6 dB maximum
Phase shift	0-180° minimum
Input voltage range	-18 to 0 VDC
Switching speed	10 ms maximum
Input VSWR	2:1 maximum
Output VSWR	2:1 maximum
RF input power	+10 dBm maximum
Outline drawing	174342

### 8-9 GHz

#### MODEL APS-08000900-180-1F-1FS

Frequency range	8-9 GHz
Insertion loss	5 dB maximum
Phase shift	0-180° minimum
Phase error	$\pm 7^\circ$ pk-pk maximum
Input voltage range	-18 to 0 VDC
Switching speed	20 ns maximum
Insertion loss variation over phase noise	$\pm 0.3$ dB maximum
Input VSWR	2:1 maximum
Output VSWR	2:1 maximum
RF input power	+10 dBm maximum
Outline drawing	174342

## ORDERING INFORMATION

To order an analog phase shifter, please include the model number derived from the following table. If requesting a quotation for an analog phase shifter not listed in this catalog, please consult MITEQ. Include any additional specifications that are not listed.

	<i>APS</i>	<i>-08900950</i>	<i>-180</i>	<i>-1F</i>	<i>-1F</i>	<i>S</i>
<b>Analog Phase Shifter</b> _____						
<b>Frequency Range</b> _____ Start and stop sequentially rounded to the nearest MHz. Example: 8.9 to 9.5 GHz would be 08900950						
<b>Phase Range</b> _____ Example: 180 degrees would be -180						
<b>Input Connector</b> _____ SMA .....1 GPO .....2 Please add F for female or M for male.						
<b>Output Connector</b> _____ SMA .....1 GPO .....2 Please add F for female or M for male.						
<b>Special Technical Specification Requirements</b> _____ If required they must be denoted on the purchase order .....S						

Using the above information to order or request a phase shifter with other technical requirements placed in the purchase order or in the RFQ documentation would result in ordering a APS-08900950-180-1F-1FS, a 8.9 to 9.5 GHz, 180° analog phase shifter with other technical requirements denoted on purchase order. Other special technical specification requirements would typically be switching speed, in/out VSWR, IIP3, size, etc.

### ENVIRONMENTAL CONDITIONS

Operating temperature ..... 0 to 70°C  
 Storage temperature ..... -30 to +85°C  
 Humidity..... 95% noncondensing  
 Vibration..... 12 g's rms, 20-2000 Hz per  
 MIL-STD-810B, Method 514,  
 Procedure 5