Mechanical Phase Shifters

Model 917
Miniature In-Line Phase Shifter
Ruggedized 2.92mm Connector

dc to 18.0 GHz
20 Watts

Features

- Self Locking - Internal mechanism eliminates the need for a locking nut. Ideal for phase trimming in densely packaged systems with minimum accessibility.
- Linear - Provides a linear adjustable phase shift to 18 GHz in a very small in-line coaxial package.

Specifications

- NOMINAL IMPEDANCE: 50 Ω
- FREQUENCY RANGE: dc to 18.0 GHz
- INCREMENTAL PHASE SHIFT: Adjustable to 225° @ 18 GHz; 100° at 9 GHz (typical).
- RESOLUTION: 0.5° per turn per GHz, typical (Adjustment shaft has 20 turns for full range).
- INSERTION PHASE: 890° @ 10 GHz (Typical)
- PHASE VS FREQUENCY: Nominally linear response
- INSERTION LOSS: 0.8 dB maximum (0.5 dB typical @ 18 GHz)

**MAXIMUM SWR:**

<table>
<thead>
<tr>
<th>Frequency Range (GHz)</th>
<th>SWR</th>
</tr>
</thead>
<tbody>
<tr>
<td>dc - 18</td>
<td>1.5</td>
</tr>
</tbody>
</table>

- POWER RATING: 20 watts average
- TEMPERATURE RANGE: -55°C to 125°C.

**CONNECTOR:** SMK (2.92mm) connector compatible with SMA, 3.5mm, SMK and other 2.92mm connectors. Available connector options are:

<table>
<thead>
<tr>
<th>Connector Options</th>
<th>Type/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SMK, Female</td>
</tr>
<tr>
<td>2</td>
<td>SMK, Male</td>
</tr>
</tbody>
</table>

- WEIGHT: 45 g (1.6 oz)

**PHYSICAL DIMENSIONS:**

<table>
<thead>
<tr>
<th>CONN TYPE</th>
<th>DIM A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>19.81 (0.78)</td>
</tr>
<tr>
<td>Male</td>
<td>21.34 (0.84)</td>
</tr>
</tbody>
</table>

**NOTE:** All dimensions are given in mm (inches) and are nominal ±0.5 (0.02), unless otherwise specified.

**MODEL NUMBER DESCRIPTION:**

Example:

917 - XX

- Basic Model Number
- Connector Options*
  - 1st digit is J1 side
  - 2nd digit is J2 side