



8 Bit Programmable Phase Shifter, 6 GHz to 18 GHz,  
 360 Deg Phase Shift, 256 Steps and SMA

## Phase Shifters and Trimmers Technical Data Sheet

PE82P5002

### Features

- 8 Bit Digital Controlled Phase Shifter
- 6 GHz to 18 GHz Frequency Range
- +/-15 Deg Max Accuracy
- 360 Deg Phase Shift in 256 Steps
- 500 ns Max Switching Speed
- +20 dBm Max Input Power
- Insertion Loss 10 dB Typ

### Applications

- Electronic Warfare
- Test & Measurement
- Military & Space
- Radar
- Military Communications Systems

### Description

The PE82P5002 is an 8 Bit Digital Controlled Phase Shifter with 360 Deg Phase Range with a switching speed of 500 ns Max over the Operating Frequency Range from 6 GHz to 18 GHz. The Module is offered in a slim line housing measuring only 0.5" Height.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	6		18	GHz
Phase Shift	0		360	Degrees
Input VSWR			2:1	
Insertion Loss		10	12	dB
Phase Accuracy			±15	Degrees
PM/AM Error			±2.5	dB
Switching Speed			500	ns
Translation Rate	0		500	kHz
Carrier Suppression		18		dBc
Side Band Suppression		15		dBc
Harmonics		-25		dBc
Voltage Supply 1			5	Vdc
Current Supply 1			115	mA
Voltage Supply 2	-15		-12	Vdc
Current Supply 2			20	mA
Input Power, CW			0.1	Watts
Input Power, CW (Survival)			+20	dBm

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [8 Bit Programmable Phase Shifter, 6 GHz to 18 GHz, 360 Deg Phase Shift, 256 Steps and SMA PE82P5002](#)



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### Mechanical Specifications

#### Size

Length	1.6 in [40.64 mm]
Width/Diameter	1.75 in [44.45 mm]
Height	0.5 in [12.7 mm]
Weight	0.117 lbs [53.07 g]

#### Configuration

Input Connector	SMA Female
Output Connector	SMA Female

### Environmental Specifications

#### Temperature

Operating Range	-55 to 85 deg C
Storage Range	-65 to 125 deg C

Humidity	MIL-STD-202G, METHOD 103B COND. B
Shock	MIL-STD-202G, METHOD 213B COND. B
Vibration	MIL-STD-202G, METHOD 204D COND. B
Altitude	MIL-STD-202G, METHOD 105C COND. B
Temperature Cycle	MIL-STD-202G, METHOD 107D COND. A

**Compliance Certifications** (see [product page](#) for current document)

### Plotted and Other Data

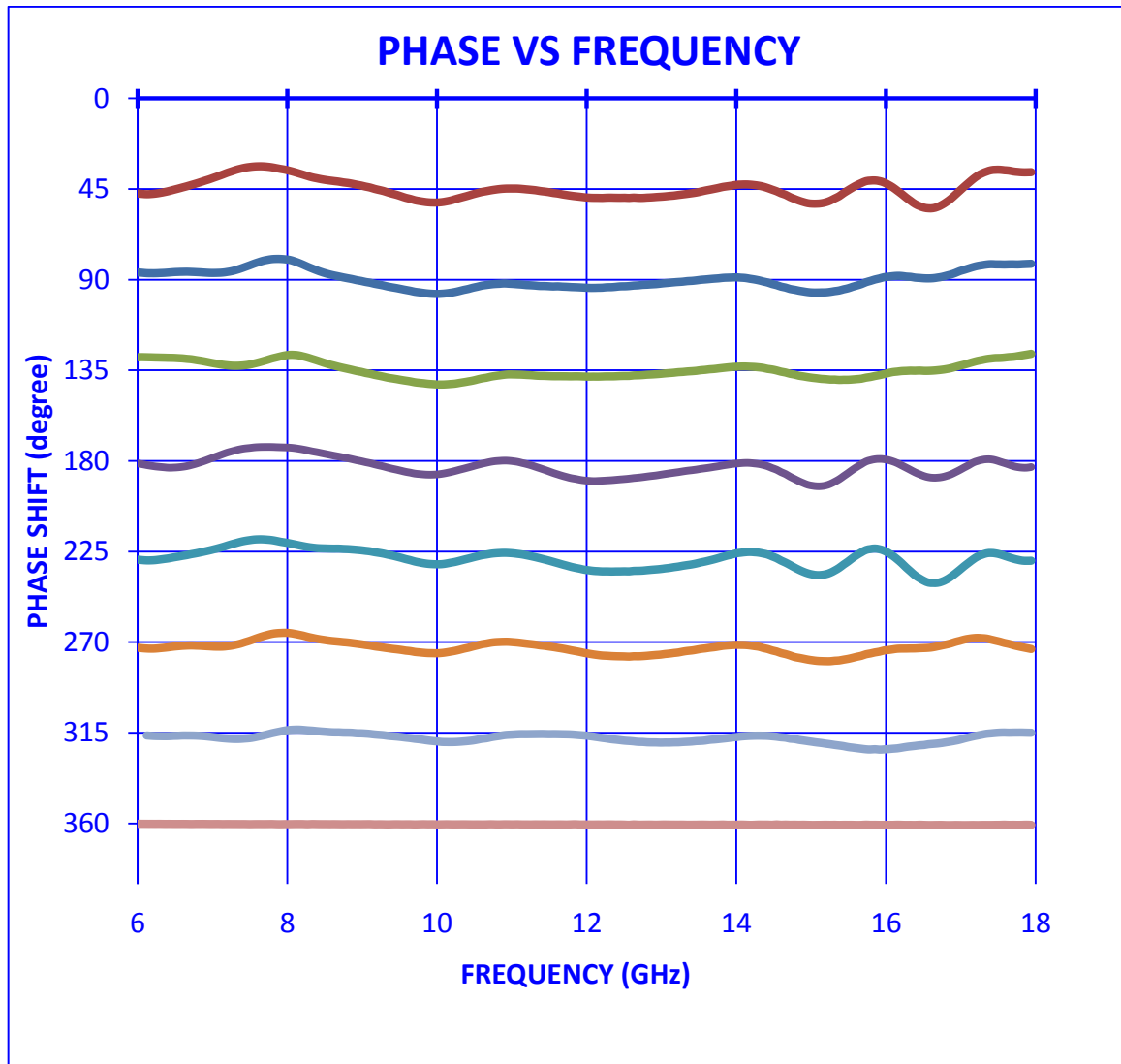
Notes:

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Typical Performance Data



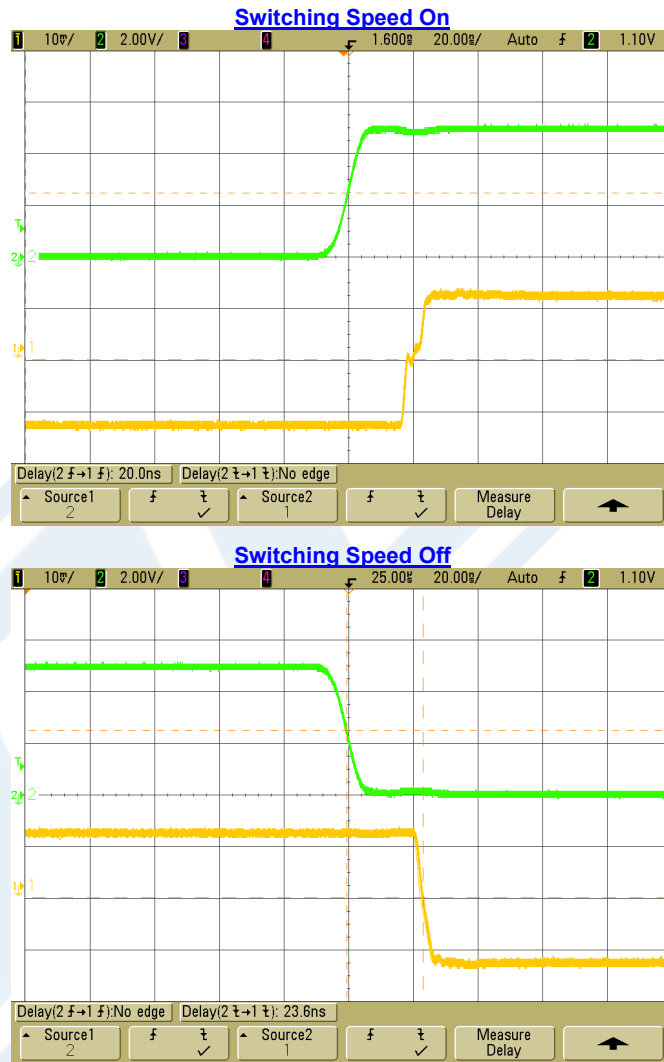
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Green Trace: Waveform Generator TTL Levels  
Yellow Trace: RF Output through mixer IF Port

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8 Bit Programmable Phase Shifter, 6 GHz to 18 GHz, 360 Deg Phase Shift, 256 Steps and SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [8 Bit Programmable Phase Shifter, 6 GHz to 18 GHz, 360 Deg Phase Shift, 256 Steps and SMA PE82P5002](https://www.pasternack.com/8-bit-programmable-phase-shifter-18-ghz-sma-360-deg-256-steps-pe82p5002-p.aspx)

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