PS6000L R3

PORTABLE WIDEBAND PHASE SHIFTER

Key Features:

- 400 to 6000MHz Coverage
- 360 Degree Phase Adjustment Range
- Accurate 0.5-Degree Steps
- Integrated Step Attenuator
- USB COM Interface
- Industry Standard SCPI Commands
- OLED Display and control buttons
- Very Cost Effective
- Incredibly Compact
- Conveniently USB powered
- Audio Feedback

PS6000L (Rev 3) – An active wideband RF phase shifter

The PS6000L enables users to phase shift an RF/Microwave signal in 0.5 degree increments easily and at low cost. The RF device bandwidth extends from 400 to 6000MHz, and phase adjustment range covers the entire -180 to +180 degree range. The PS6000L has a wideband active I/Q modulator core resulting in a typical power output level of +10dBm. An integrated step attenuator on the RF output allows for a 30dB range in 0.25dB steps.

Stand-Alone Control

Manual operation sets the PS6000L above the competition with unparalleled flexibility. The PS6000L can be easily controlled from its front panel interface without a host system. Any standard USB port including wall chargers, battery packs, laptops, or desktops will provide sufficient power.

USB Automated Operation

With the PS6000L connected to any computer via micro USB port, industry standard SCPI commands can be used to fully control the instrument. This USB virtual COM port allows users to control the PS6000L for automated test applications from many different operating systems and scripting languages and environments. No extra drivers, or API knowledge is needed.
## TECHNICAL SPECIFICATIONS

Conditions: 25° C, USB supplied power

<table>
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<th>Parameter</th>
<th>Min</th>
<th>Max</th>
<th>Typ</th>
<th>Units</th>
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<td>Frequency Range</td>
<td>400</td>
<td>6000</td>
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<td>MHz</td>
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<td>Phase Adjustment Range</td>
<td>-180</td>
<td>+180</td>
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<td>Degrees</td>
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<tr>
<td>Step Size / Resolution</td>
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<td>Degrees</td>
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<td>Phase Accuracy (400 - 4500MHz, ±180°)</td>
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<td>±3.0</td>
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<tr>
<td>RF Output Level (Adjustable)</td>
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<td>Output Attenuator Step Size</td>
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PS6000L

Case Dimensions & Front / Rear Panel Features

Ultra-Micro Case

Case Dimensions:
- Width: 2.75in
- Height: 1.15in
- Depth: 2.0in

Front Panel Features:
- Micro USB Signal Input (SMA), 0 dBm typical
- USB Interface to PC and DC Power Input
- Signal Output (SMA), +10dB typical
- Status: -155 Degrees
- User Display

Rear Panel Features:
- Signal Input (SMA), 0 dBm typical

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Gain Plots (Negative Insertion Loss)

[25 Deg. C, USB Power]

RF input signal level: -5dBm

RF input signal level: -15dBm

RF input signal level: -25dBm
**Typical Narrowband CW Frequency Response**

-120 degree setting at 500MHz

90 degree setting at 2.4GHz

-160 degree setting at 2.4GHz

-130 degree setting at 5.8GHz
**PS6000L**  
**Typical Wideband Frequency Response**  
[ 25 Deg. C, USB Power ]

+120-degree setting, full frequency range

-160-degree setting, full frequency range

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**PS6000L**

**Typical User connections for remote Operation via USB**

![Diagram showing USB Power and Interface between Host PC and PS6000L]

**Windows Control GUI Application**

![Image of Windows Control GUI Application with phase control and output step attenuator features]

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PS6000L R3 - Version 3.1
PS6000L

Product Photos

www.dsinstruments.com

PS6000L R3 - Version 3.1
**Ordering Information**

PS6000 - 400 to 6000MHz (No Display) ($489.00)

PS6000L – 400 to 6000MHz ($523.95)

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**Contact Information**

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