

# Probing Solutions

## PP007-WR PP007-WS Passive Probe

### LEADING FEATURES

- Compact probe head
- Supports fine pitch SMD probing
- Rugged, sharp tip
- HF optimized connection accessories
- Over 30 accessories
- Low input capacitance

### TECHNICAL SPECIFICATIONS

#### Electrical Characteristics:

|                    |   |
|--------------------|---|
| Attenuation:       | ÷ 10  |
| Bandwidth:         | > 500 MHz                                     |
| Input R:           | 10 M $\Omega$                                 |
| Input C:           | 9.5 pF  |
| Max. Input Voltage | 400 V CAT I<br>(1250 V surge)<br>300 V CAT II |

#### General Characteristics:

|                         |        |
|-------------------------|--------|
| Ground Sleeve Diameter: | 2.5 mm |
| Input Pin Diameter:     | 0.5 mm |
| Cable Length:           | 1.3 m  |



The PP007 is designed to be an ideal general purpose probe. It features 500 MHz bandwidth, rugged design and a wide assortment of accessories.

### Updated Passive Probe

The PP007 embodies leading technology in passive probe design. The small probe is optimized for maximum waveform fidelity, including high frequency signal components, in a rugged probe suitable for every day. The sharp probe tip\* is spring loaded, allowing it to retract into the narrow probe head. The tip does not slip off the object being probed—important when probing small geometry surface-mounted components. Probing dense circuits is easier with the small 2.5 mm ground sleeve, which provides much better visibility than 5 mm and 3.5 mm probes.

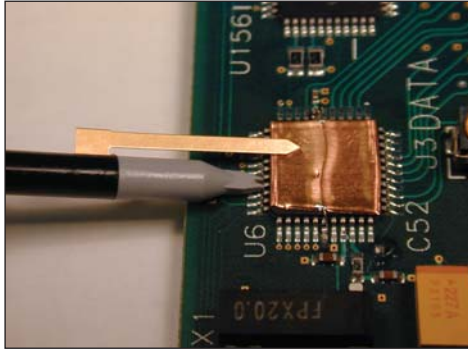
\* A rigid tip is included

### Optimized for HF Applications

The input capacitance of the probe is very low for a passive probe—to minimize loading of high frequency signals. However, keeping any resonance beyond the passband also requires low inductance in the interconnections. Probes with limited interconnection accessories often force the user to extend the input or ground lead lengths to connect to the circuit—a practice that adds inductance and lowers the resonate frequency.

Accessories such as the ground spring and innovative ground blade (PK007-013) provide a very low inductance ground interconnect. Copper foil tape, (PK007-014) included with the probe, can be placed on top of an IC and connected to its ground pins to create a convenient ground plane

for the probe to connect to. Used with the ground blade, this method provides an ideal ground connection for probing signals with high frequency content.



Ground Blade Used with Copper Foil

For applications which require the flexibility of a longer ground lead without compromising high frequency performance, the optional HF-compensated ground lead (PK007-030) provides a solution. A passive network in the lead itself reduces the loading effect of any resonance.

### Ease in Probing SMT Circuits

In addition to the small probe head size, the PP007 is augmented with several accessories to simplify probing dense surface mounted circuit assemblies. Insulating probe caps with guide fingers (PK007-009, 010, 011, 012) keep the small probe tip centered on the IC lead and prevent it from shorting to adjacent leads. The IC Caps are supplied in a range of sizes designed for IC lead pitches from 0.5 mm through 1.27 mm.

Optional accessory kits contain 0.5 mm micro clips for attaching to the smallest IC leads, along with adapter leads to connect to the probe tip.

### Rugged Probe for Everyday Use

Unlike some probes, the PP007 does not trade off physical robustness to obtain excellent high frequency performance. The probe will stand up to the rigors of everyday use.

The probe has a working voltage rating of 400V CAT I with transient surges up to 1250 V.

EN61010-31-2 Installation category I (CAT I) is for probing circuits which are isolated from the power mains through a power supply transformer—the most common circuits measured with oscilloscopes. The probe also is rated for a CAT II working voltage of 300 V. CAT II circuits are on the primary side of power converters and similar power line connected circuits which are not intended to be permanently connected to building wiring.

The probe tip is mounted in a socket, allowing user replacement should it ever break.

### Ordering the Correct Model

The PP007 is supplied in two models, each optimized to give the best performance with a specific family of oscilloscope. The PP007-WR is designed to be used with the WaveRunner 6000 series, while the PP007-WS is designed for the WaveSurfer 400 series oscilloscopes. The physical design of the probes are identical. All of the connection accessories, standard and optional, will fit both models.

### Sales and Service Throughout the World

#### Corporate Headquarters

700 Chestnut Ridge Road  
Chestnut Ridge, NY 10977  
USA

[www.lecroy.com](http://www.lecroy.com)

#### LeCroy Sales Offices:

China: Beijing  
Phone (86) 10 8526 1618  
Fax (86) 10 8526 1619

France: Les Ulis  
Phone (33) 1 6918 8320  
Fax (33) 1 6907 4042

Germany: Heidelberg  
Phone (49) 6221 827 00  
Fax (49) 6221 834 655

Hong Kong  
Phone (852) 2834 5630  
Fax (852) 2834 9893

Italy: Venice  
Phone (39) 041 599 7011  
Fax (39) 041 456 9542

Japan: Osaka  
Phone (81) 6 6396 0961  
Fax (81) 6 6396 0962

Japan: Tokyo  
Phone (81) 3 3376 9400  
Fax (81) 3 3376 9587

Korea: Seoul  
Phone (82) 2 3452 0400  
Fax (82) 2 3452 0490

Singapore  
Phone (65) 6442 4880  
Fax (65) 6442 7811

Sweden: Stockholm  
Phone (46) 8 580 143 45  
Fax (46) 8 580 143 45

Switzerland: Geneva  
Phone (41) 22 719 2228 (North)  
Phone (41) 22 719 2175 (South)  
Fax (41) 22 719 2230

U.K.: Abingdon  
Phone (44) 1 235 536 973  
Fax (44) 1 235 528 796

U.S.A.: Chestnut Ridge  
Phone (1) 845 578 6020  
Fax (1) 845 578 5985

### Ordering Information

Passive Probe for WR6000 Series Oscilloscopes  
Passive Probe for WS400 Series Oscilloscopes  
Basic Adapter Kit  
Advanced Adapter Kit  
SMD Adapter Kit  
Micro Clip Kit  
Instruction Manual

### Product Code

PP007-WR-1  
PP007-WS-1  
PK701  
PK702  
PK703  
PK704  
PP007-OM-E