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 MΩ**
Input C:	**9.5 pF**
Max. Input Voltage	**400 V CAT I (1250 V surge) 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*

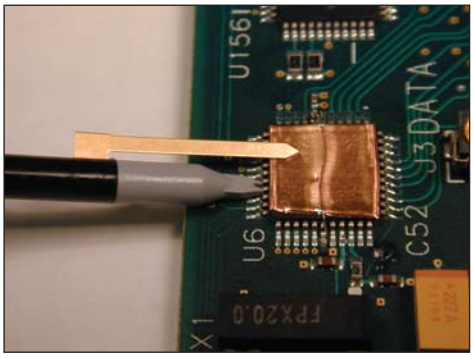
Optimized for HF Applications

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

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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 400VCAT 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 fora 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.

Ordering Information	Product Code
Passive Probe for WR6000 Series Oscilloscopes	PP007-WR-1
Passive Probe for WS400 Series Oscilloscopes	PP007-WS-1
Basic Adapter Kit	PK701
Advanced Adapter Kit	PK702
SMD Adapter Kit	PK703
Micro Clip Kit	PK704
Instruction Manual	PP007-OM-E

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