

## ZS SERIES HIGH IMPEDANCE ACTIVE PROBES

### Leading Features

- 1 GHz and 1.5 GHz Probe Bandwidths
- 1 M $\Omega$  Input Resistance
- < 0.9 pF Input Capacitance
- Wide Range of Probe Tips
  - Sharp Tip
  - Bent Tip
  - SMD Tip
  - IC Lead Tip
- Extensive Range of Grounds
  - Offset Lead
  - Ground Blade/Copper Pad
  - Solder-In Ground
  - Bendable Pogo Ground
- Collection of ground Leads, Sprung Hooks and Adapters
- Unique Form Factor for Probing Consecutive Square Pins
- Wide Offset Range (ZS1500 Only)



### High Impedance Reduces Circuit Loading Across Full Scope Bandwidth

Engineers must commonly probe high frequency signals with high signal fidelity. Typical passive probes with high input R and C provide good response at lower frequencies, but inappropriately load the circuit, and distort signals, at higher frequencies. The ZS Series features both high input R (1 M $\Omega$ ) and low input C (< 0.9 pF) to reduce circuit loading across the entire probe/scope bandwidth. With low circuit loading, and a form factor that allows probing in confined areas, the ZS Series becomes the everyday probe for all different types of signals and connection points. The ZS1000 is ideal for 200–600 MHz oscilloscopes. The ZS1500 is ideal for 1 GHz oscilloscopes.

### A Variety of Probe Tips for Varied Tasks

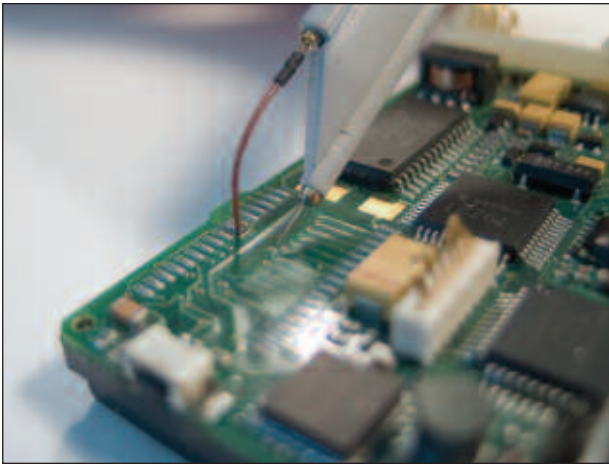
Engineers often need to probe a variety of different test points in confined spaces. The extensive range of standard and available tip accessories for the ZS Series of probes ensures that this probe can meet any difficult probing challenge.

Various flexible leads and clips, such as right angle leads, Y-adapters, and pico hooks, are also available for probing test points that are spaced farther apart.

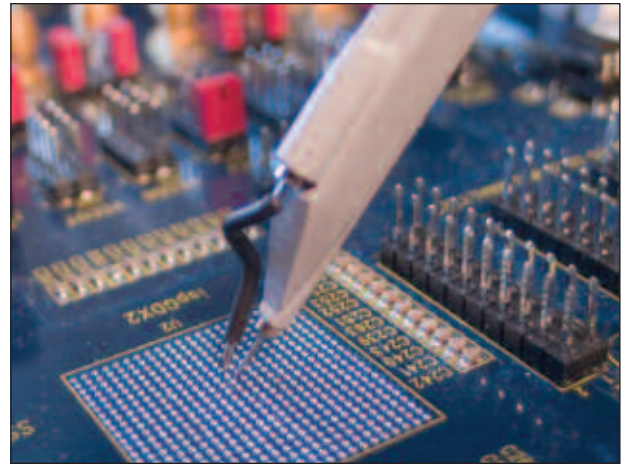
### Innovative Grounding Solutions Provide the Highest Signal Fidelity and Easiest Connections

Making a good ground connection is just as important as accessing the right test point. Keeping the ground loop short is critical to eliminating the effect of high inductance on the signal. The ZS Series of probes provides several grounding capabilities to offer the highest signal fidelity by shortening the ground loop and eliminating the effect of that loop on the signal. The standard Offset ground lead is a “twisted-Z” shape for probing signal and ground points that are extremely close together. The standard ground blade and copper pad provides the shortest ground loop possible, and provides a pulse response that cannot be achieved with traditional long ground leads. A variety of other ground connections are available for nearly any type of probing requirement.

# Extensive Set of Probe Tips and Ground Leads for a Wide Range of Probing Scenarios



Use the Solder-In Ground with Sharp Tip for general purpose browsing.



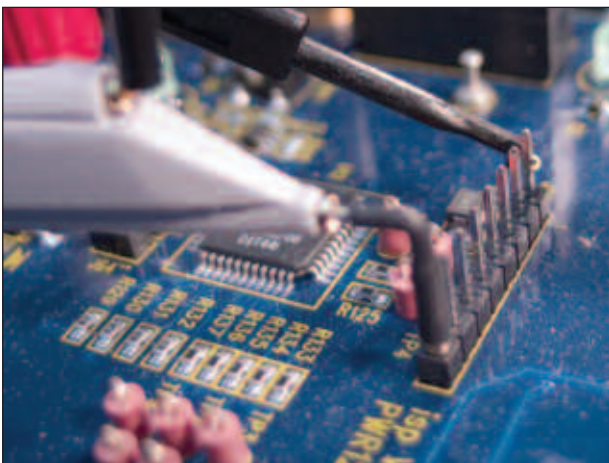
The Sharp Tip and Offset Ground Lead can be used together for probing signal and ground points extremely close together.



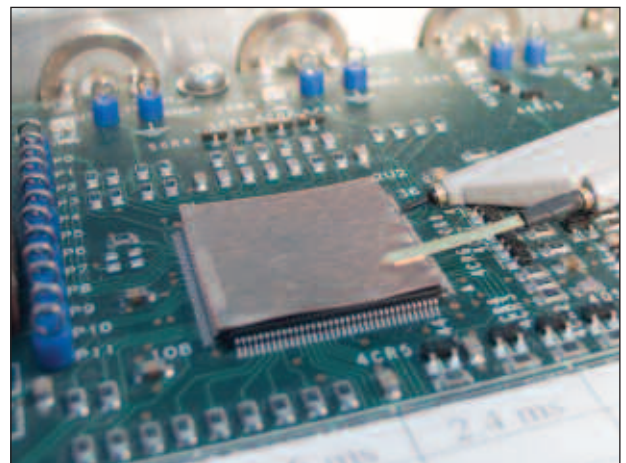
Hard-to-reach spaces can be probed with the Bent Sharp Tip and can be used with a range of ground leads like the flexible Short Right Angle Lead shown here.



Probe directly on surface mount components like resistors or capacitors with the Discrete SMD Tip. Use this tip with any of the ground leads, like the flexible Long Right Angle Lead shown here.



Use the Right Angle Connector and the Sprung Hook to probe square pins spaced far apart from each other.



The Ground Blade and Copper Pad provide the shortest ground loop for excellent signal fidelity when probing an IC. Use them with the insulated IC Lead Tip to prevent shorting between test points.

# Specifications and Ordering Information

Specifications	ZS1000	ZS1500
<b>Electrical Characteristics</b>		
Bandwidth (probe only)	1 GHz	1.5 GHz
Bandwidth (system)	600 MHz at probe tip with 600 MHz oscilloscope	1 GHz at probe tip with 1 GHz oscilloscope
Input Capacitance	≤ 0.9 pF	≤ 0.9 pF
DC Input Resistance	1 MΩ	1 MΩ
Probe Offset Range	NA	±12 V
Attenuation	÷10	÷10
Input Dynamic Range	±8 V	±8 V
Non-Destruct Voltage	±40 V	±40 V
<b>General Characteristics</b>		
Cable Length	1.3 m	1.3 m
<b>Included with Standard Configuration</b>		
Instruction Manual, English		
Color Coding Clips (set of 4 colors)		
Certificate of Calibration		
1-Year Warranty		
Sharp Probe Tip (PK-ZS-001)	4	4
Offset Ground (PK-ZS-002)	2	2
Short Right Angle Lead (PK-ZS-003)	1	1
Long Right Angle Lead (PK-ZS-004)	1	1
Y Lead Adapter (PK-ZS-005)	1	1
Right Angle Connector (PK-ZS-006)	1	1
Sprung Hook Red (PK-ZS-007R)	1	1
Sprung Hook Black (PK-ZS-007B)	1	1
Ground Blade (PK-ZS-008)	1	1
Copper Pad (PK-ZS-009)	2	2

## Ordering Information

Product Description	Product Code	Product Description	Product Code
1 GHz, 1 MΩ, 0.9 pF Active Probe	ZS1000	IC Lead Tip	PACC-PT003
1.5 GHz, 1 MΩ, 0.9 pF Active Probe	ZS1500	Discrete SMD Tip	PACC-PT004
Replacement Accessory Kit for ZS Series Probes	PK-ZS	Bent Sharp Tip	PACC-PT005
Sharp Probe Tip	PK-ZS-001	Solder-In Ground	PACC-CD007
Offset Ground	PK-ZS-002	Bendable Pogo Ground	PACC-CD008
Short Right Angle Lead	PK-ZS-003	Ground Spring Hook	PACC-LD001
Long Right Angle Lead	PK-ZS-004	Square Pin Ground Spring	PACC-LD002
Y Lead Adapter	PK-ZS-005		
Right Angle Connector	PK-ZS-006		
Sprung Hook - Red	PK-ZS-007R		
Sprung Hook - Black	PK-ZS-007B		
Ground Blade	PK-ZS-008		
Copper Pad	PK-ZS-009		

### Customer Service

LeCroy oscilloscopes and probes are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, our digital oscilloscopes are fully warranted for three years, and our probes are warranted for one year.

This warranty includes:

- No charge for return shipping
- Long-term 7-year support
- Upgrade to latest software at no charge



1-800-5-LeCroy  
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Local sales offices are located throughout the world.  
To find the most convenient one visit [www.lecroy.com](http://www.lecroy.com)