

## ZS-A Series High Impedance Active Probes 1 GHz - 4 GHz Probes



### Key Features

- High signal fidelity to 4 GHz bandwidth
- Low circuit loading – High input impedance and low capacitance
- 4 GHz, 2.5 GHz, 1.5 GHz and 1 GHz models
- 1 M $\Omega$  input resistance
- 0.6 pF to 0.9 pF input capacitance
- $\pm 8$  V to  $\pm 15$  V input dynamic range
- $\pm 12$  V to  $\pm 15$  V offset range
- Wide variety of tips and grounds
- Easy to use, integrated with oscilloscope

The ZS-A Series probes are high impedance, low capacitance active probes that maintain high signal fidelity through 4 GHz. A small form factor and a wide variety of accessories ensures the ZS-A Series probe meets every difficult probing challenge.

### High Impedance Reduces Circuit Loading across Full Oscilloscope 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-A Series features both high input R (1 M $\Omega$ ) and low input C (0.6 pF to 0.9 pF) to reduce circuit Loading across the entire probe/ oscilloscope bandwidth.

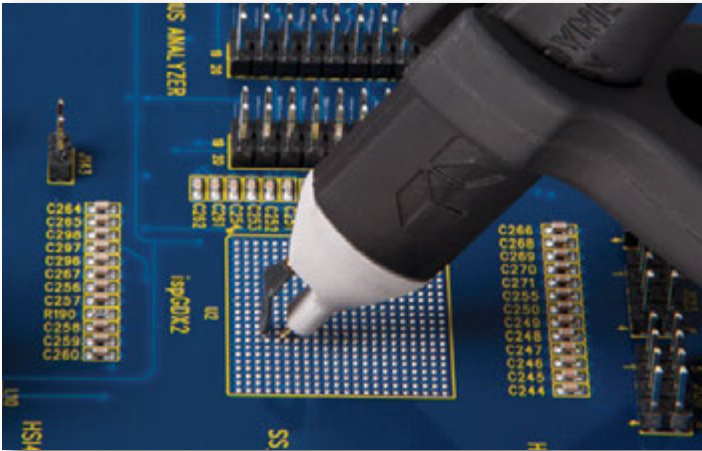
### A Variety of Probe Tips for Varied Tasks

The small form factor and extensive range of standard probe tips ensures that this probe can meet any difficult probing challenge. Various flexible leads and clips, such as right-angle leads, Y-adapters, and micro-grabbers, are also available for probing test points that are spaced farther apart.

### Innovative Grounding Provides the Highest Signal Fidelity

Keeping the ground loop short is critical to eliminating the effect of high inductance on the signal. The ZS-A Series probes provide a wide variety of unique and innovative accessories which maintain the highest signal fidelity. They eliminate the effects of the loop on the circuit.

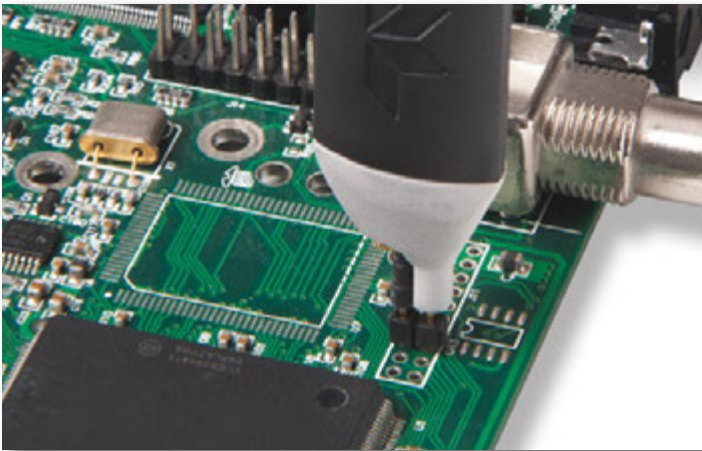
# EXTENSIVE SET OF PROBE TIPS AND GROUND LEADS



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



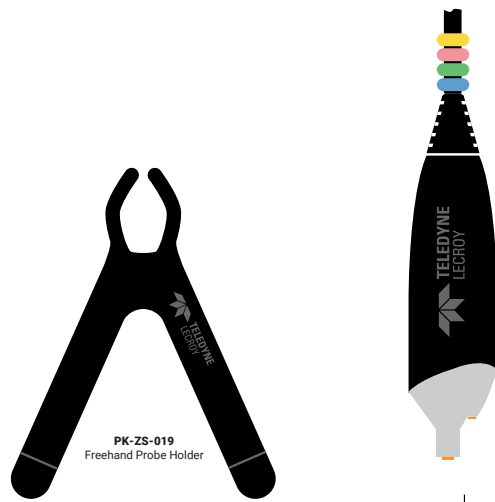
*The Ground Blade and Copper Pad provide the shortest ground loop for excellent signal fidelity when probing an IC.*



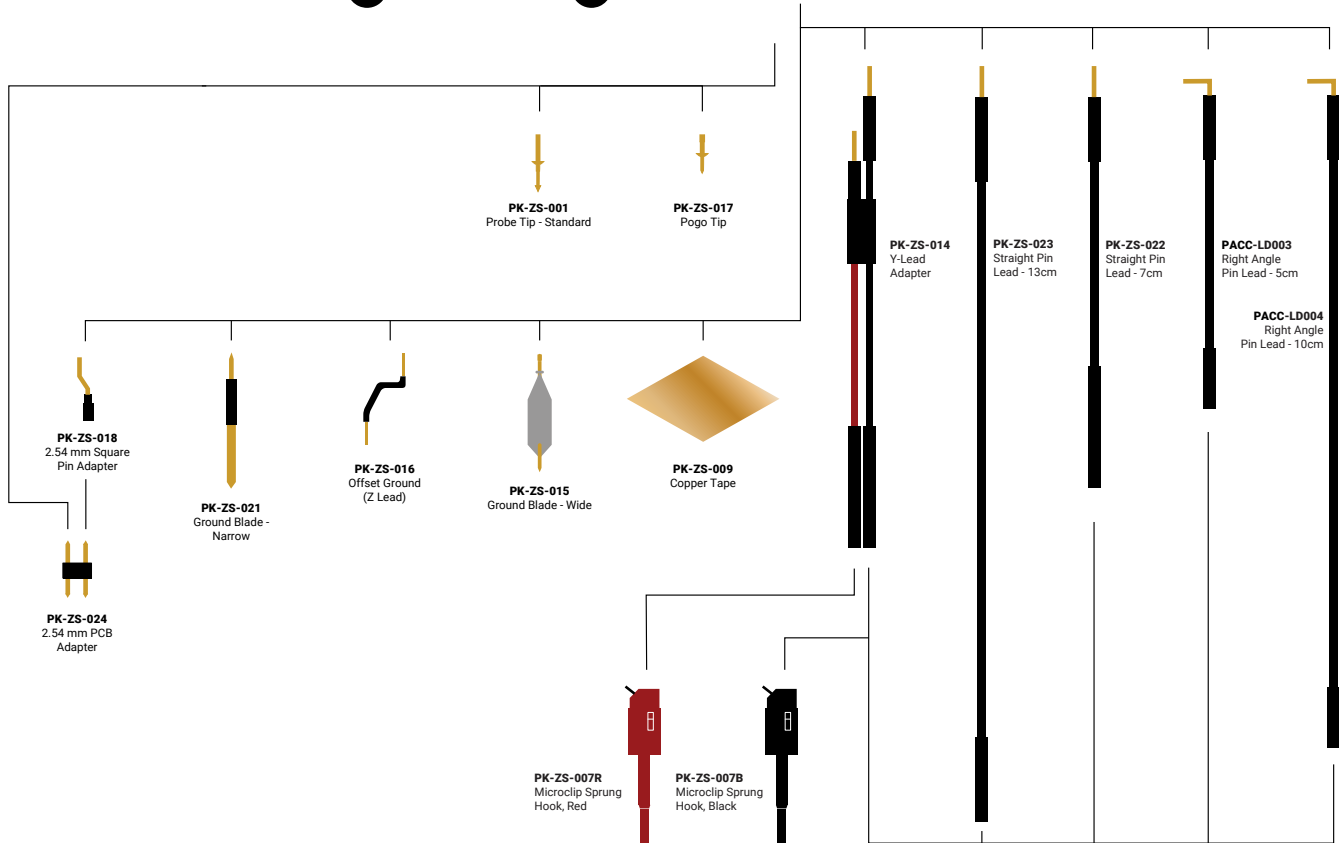
*The 2.54 mm probe adapter provides full BW probing and holds the probe in place.*



*Use the spring-loaded Pogo Tip to maintain reliable contact with small probe points. Use this tip with any of the ground leads like the flexible Short Right-Angle Lead shown here.*



**PK-ZS-019**  
Freehand Probe Holder



**PK-ZS-001**  
Probe Tip - Standard

**PK-ZS-017**  
Pogo Tip

**PK-ZS-018**  
2.54 mm Square  
Pin Adapter

**PK-ZS-024**  
2.54 mm PCB  
Adapter

**PK-ZS-021**  
Ground Blade -  
Narrow

**PK-ZS-016**  
Offset Ground  
(Z Lead)

**PK-ZS-015**  
Ground Blade - Wide

**PK-ZS-009**  
Copper Tape

**PK-ZS-014**  
Y-Lead  
Adapter

**PK-ZS-023**  
Straight Pin  
Lead - 13cm

**PK-ZS-022**  
Straight Pin  
Lead - 7cm

**PACC-LD003**  
Right Angle  
Pin Lead - 5cm

**PACC-LD004**  
Right Angle  
Pin Lead - 10cm

**PK-ZS-007R**  
Microclip Sprung  
Hook, Red

**PK-ZS-007B**  
Microclip Sprung  
Hook, Black

*\*colors may vary*

# SPECIFICATIONS AND ORDERING INFORMATION

## Specifications

	ZS1000A	ZS1500A	ZS2500A	ZS4000A
<b>Electrical Characteristics</b>				
Probe Bandwidth	1 GHz	1.5 GHz	2.5 GHz	4 GHz
Input Capacitance	0.9 pF		0.6 pF	
DC Input Resistance			1 M $\Omega$	
Output Impedance			50 $\Omega$	
Probe Offset Range	N/A	$\pm 15$ V	$\pm 12$ V	
Attenuation			$\div 10$	
Input Dynamic Range	$\pm 15$ V (DC or AC pk)		$\pm 8$ V (DC or AC pk)	
Non-destruct Voltage	60 V		20 V	
Rise Time (10-90%)	500 ps	350 ps	180 ps	112 ps
DC-Offset-Error			$\pm 2$ mV	
Frequency Response Ripple			50 - 500 MHz: $\pm 0.5$ db 0.5 - 1 GHz: $\pm 1$ db	
Min/Max Operating Temperature			0° to 50 °C	
<b>Mechanical Characteristics</b>				
Scope to Probe Interface			ProBus	
Weight			110 g	
Cable Length	1.2 m		1.3 m	

## Ordering Information

Product Description	Product Code	Standard Accessory/Quantity																																																
4 GHz, 0.6 pF, 1 M $\Omega$ High Impedance Active Probe	ZS4000A	<table border="1"> <thead> <tr> <th>Accessory Description</th> <th>Part Number</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>Standard Straight Tip</td> <td>PK-ZS-001</td> <td>2</td> </tr> <tr> <td>2.54 mm Square Pin Adapter</td> <td>PK-ZS-018</td> <td>1</td> </tr> <tr> <td>Pogo Tip</td> <td>PK-ZS-017</td> <td>1</td> </tr> <tr> <td>2.54 mm PCB Adapter</td> <td>PK-ZS-024</td> <td>2</td> </tr> <tr> <td>Straight Pin Lead - Short</td> <td>PK-ZS-022</td> <td>1</td> </tr> <tr> <td>Straight Pin Lead - Long</td> <td>PK-ZS-023</td> <td>1</td> </tr> <tr> <td>Y Lead Adapter</td> <td>PK-ZS-014</td> <td>1</td> </tr> <tr> <td>Right Angle Lead - Short</td> <td>PACC-LD003</td> <td>1</td> </tr> <tr> <td>Right Angle Lead - Long</td> <td>PACC-LD004</td> <td>1</td> </tr> <tr> <td>Offset Ground (Z Lead)</td> <td>PK-ZS-016</td> <td>1</td> </tr> <tr> <td>Ground Blade - Narrow</td> <td>PK-ZS-021</td> <td>1</td> </tr> <tr> <td>Copper Tape</td> <td>PK-ZS-009</td> <td>2</td> </tr> <tr> <td>Ground Blade - Wide</td> <td>PK-ZS-015</td> <td>1</td> </tr> <tr> <td>Micro-Grabbers (pair)</td> <td>PK-ZS-007R PK-ZS-007B</td> <td>1</td> </tr> <tr> <td>Freehand Probe Holder</td> <td>PK-ZS-019</td> <td>1</td> </tr> </tbody> </table>	Accessory Description	Part Number	Quantity	Standard Straight Tip	PK-ZS-001	2	2.54 mm Square Pin Adapter	PK-ZS-018	1	Pogo Tip	PK-ZS-017	1	2.54 mm PCB Adapter	PK-ZS-024	2	Straight Pin Lead - Short	PK-ZS-022	1	Straight Pin Lead - Long	PK-ZS-023	1	Y Lead Adapter	PK-ZS-014	1	Right Angle Lead - Short	PACC-LD003	1	Right Angle Lead - Long	PACC-LD004	1	Offset Ground (Z Lead)	PK-ZS-016	1	Ground Blade - Narrow	PK-ZS-021	1	Copper Tape	PK-ZS-009	2	Ground Blade - Wide	PK-ZS-015	1	Micro-Grabbers (pair)	PK-ZS-007R PK-ZS-007B	1	Freehand Probe Holder	PK-ZS-019	1
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## Customer Service

Teledyne 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