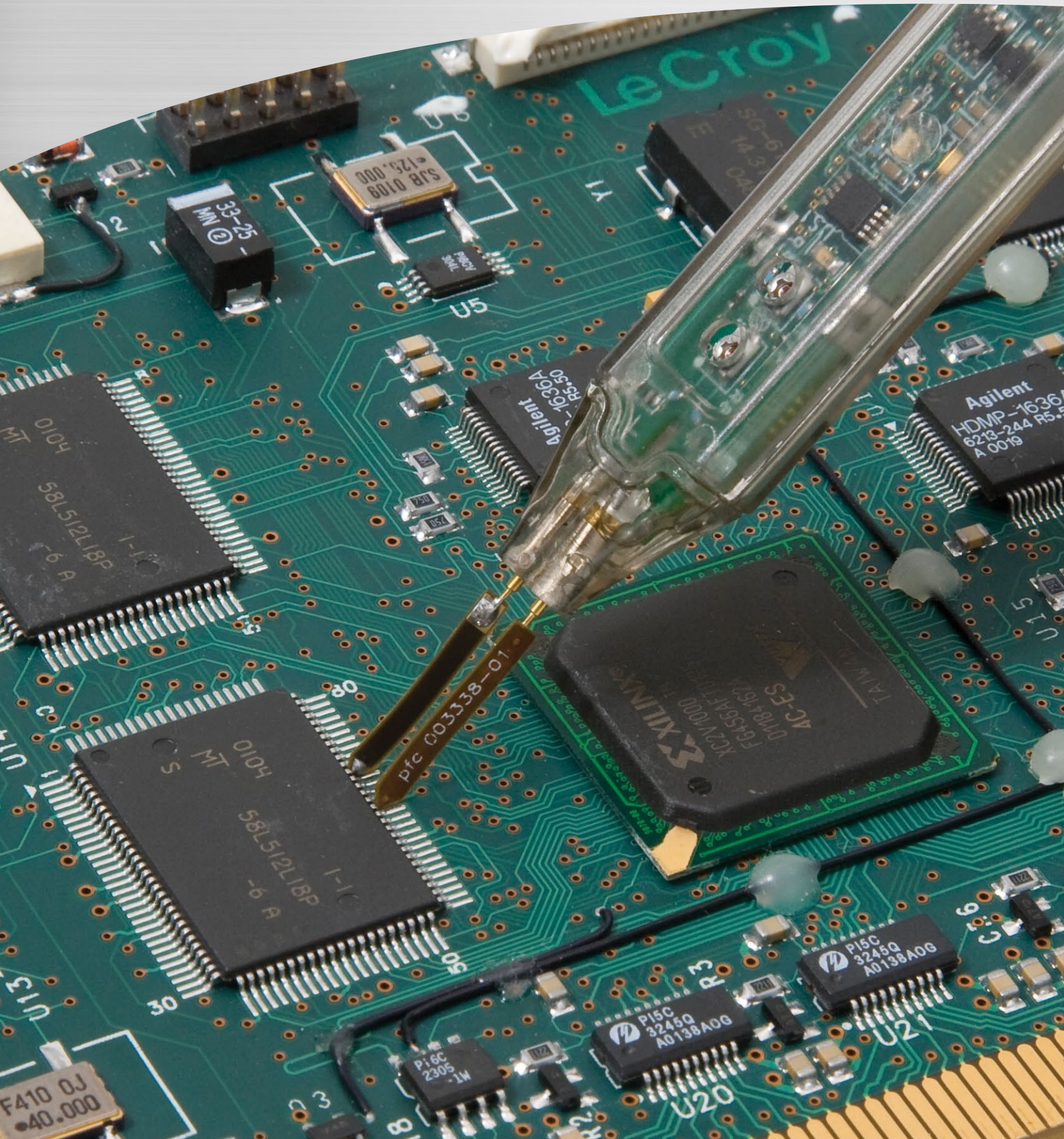




ZD Series Active Differential Probes

1.5 GHz, 1 GHz, and 500 MHz



ZD SERIES ACTIVE DIFFERENTIAL PROBES

The ZD Series probes provide wide dynamic range, excellent noise and loading performance and an extensive set of probe tips, leads, and ground accessories to handle a wide range of probing scenarios. The low 1 pF capacitance means this probe is ideal for all frequencies. The ZD Series differential probes provide full system bandwidth for all LeCroy Oscilloscopes 1.5 GHz and lower.

Fully Integrated

With the ProBus interface, the ZD500, 1000, and 1500 becomes an integral part of the oscilloscope. All probe gain and offset controls are transparent to the user, making it easier to probe the circuit without concern for which gain setting to choose. When used with a LeCroy digital oscilloscope, no external power supply is required.

Wide Dynamic Range

The ZD500, 1000, 1500 probes provides transparent probe attenuation so signals are always optimized for the display. The differential range is 18 V_{p-p} with a differential offset of ± 8 and common mode range of ± 10 V, making this versatile for every probing application.

Wide Applications

The wide dynamic range of 16 V_{p-p} and offset range of ± 8 suit this probe to a wide range of applications and signal types. The ZD differential probes are ideally suited for Automotive, Serial Data, power, and general purpose use.



The differential input capacitance is only 1 pF to minimize loading distortion on the highest frequency signals under test. System noise of only 4 mV_{rms} allows accurate measurement of the smallest signals.

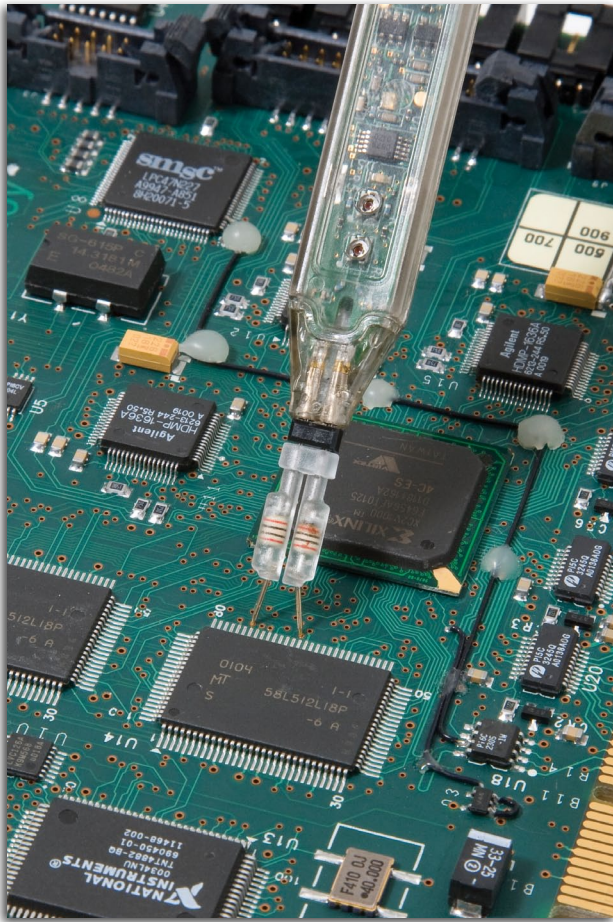
A Variety of Probe Tips for Varied Tasks

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

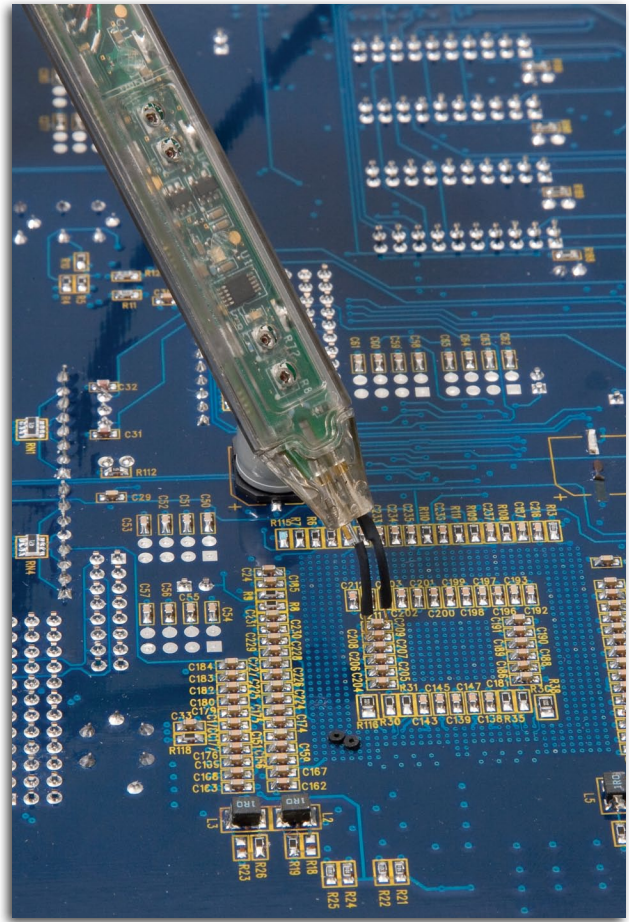
Innovative Probe Leads and Tips Provide Excellent Signal Performance Without Degradation

Probing with long leads or accessories is sometimes necessary to reach the test points, but it comes at the expense of reduced bandwidth, increased capacitance, and added noise. The ZD accessories are engineered to provide the best signal fidelity without ringing or distortions commonly introduced with tip accessories.

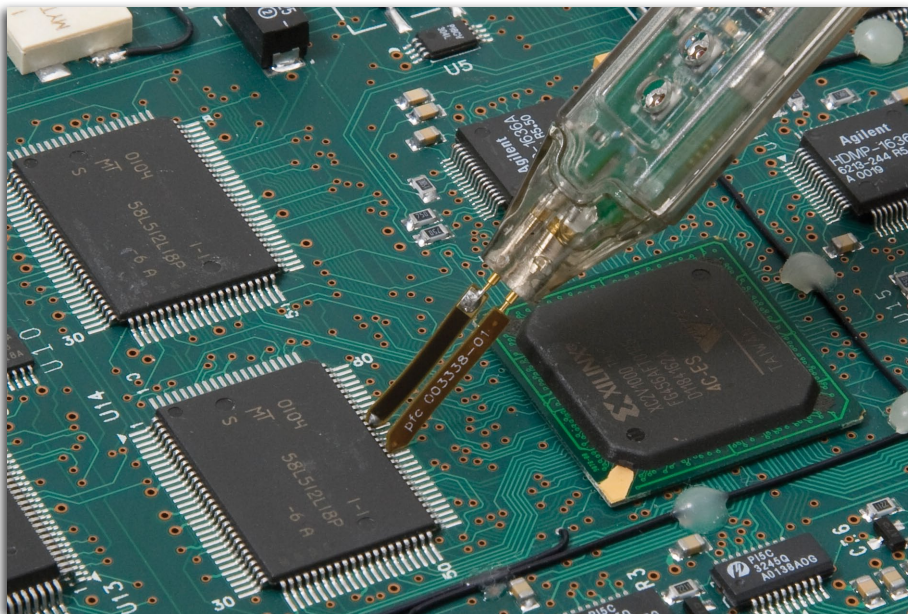
ZD SERIES ACTIVE DIFFERENTIAL PROBES



The Swivel Tip adapter can be adjusted to probe test points ranging from 0 to .300" apart with Z-Axis compliance.



The short spring loaded ground leads can be used as either a ground accessory or an extension of the probe inputs.



The IC leads with a compensation resistor provide excellent signal fidelity when probing pins of an IC. One side of each blade is insulated to prevent shorting the signal to the adjacent pin.

ZD500

| | | | |
|---|--|--|---|
| Bandwidth (Warranted) | 1500 MHz | 1000 MHz | 500 MHz |
| Bandwidth (Typical) | 1700 MHz | 1200 MHz | 650 MHz |
| Risetime 10–90% (Typical) | 270 ps | 375 ps | 650 ps |
| Risetime 20–80% (Typical) | 200 ps | 280 ps | 500 ps |
| LF Attenuation Accuracy (Warranted) | 2% | | |
| Zero Offset (Typical) (within 15 minutes after autozero) | 5 mV | | |
| System Noise (Typical) | 1.75 mV _{rms} | 1.75 mV _{rms} | 1.3 mV _{rms} |
| Probe Noise Density (Typical) | 38 nV/rt (Hz) | | |
| Input Differential Range (Nominal) | ±8 V (16 V _{P-P}) | | |
| Differential Offset Range (Nominal) | ±18 V | | |
| Offset Gain Accuracy (Typical) | 2% | | |
| Common Mode Range (Nominal) | ±10 V | | |
| Maximum Non-destruct Voltage (Nominal) | 30 V | | |
| CMRR (Typical) | 60 dB 50/60 Hz 30 dB 20 MHz 25 dB @ 1500 MHz | 60 dB 50/60 Hz 30 dB 20 MHz 25 dB @ 1000 MHz | 60 dB 50/60 Hz 30 dB 20 MHz 25 dB 500 MHz |
| DC Input Resistance (Nominal) | 50 kΩ (Common Mode) 120 kΩ (Differential Mode) | | |
| Differential Input Capacitance (Typical) | < 1.0 pF | | |

| Product Description | Product Code | Product Description | Product Code |
|---|--------------|---|--|
| 500 MHz, 1.0 pF, 1 MΩ Active Differential Probe | ZD500 | Right Angle Connector Long, Qty 2 | PACC-LD004 |
| 1 GHz, 1.0 pF, 1 MΩ Active Differential Probe | ZD1000 | Micrograbber, Qty 2 | PK006-4 |
| 1.5 GHz, 1.0 pF, 1 MΩ Active Differential Probe | ZD1500 | Minigrabber, Qty 2 | PACC-CL001 |
| Standard Accessories | | Short Spring Loaded Bendable Ground, Qty 2 | PACC-CD008 |
| Y Lead Adapter, Qty 1 | PACC-ZD001 | Probe Calibration Fixture, Qty 1 | PCF200 |
| Solder-In Lead, Qty 2 | PACC-ZD002 | ZD Replacement Kit | PK111 |
| Long Spring Loaded Bendable Ground, Qty 2 | PACC-ZD003 | Hands Free Probe Holder, Qty1 | PACC-MS001 |
| Tip Saver, Qty 2 | PACC-ZD004 | | |
| Swivel Tip Adapter | PACC-ZD005 | Customer Service | |
| Small IC Adapter, Qty 2 | PACC-ZD006 | 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. | |
| Micro Pogo Pin Tip, Qty 6 | PACC-ZD009 | This warranty includes: | • No charge for return shipping • Long-term 7-year support |
| Right Angle Connector Short, Qty 2 | PACC-LD003 | | |

| | |
|---|------------|
| Y Lead Adapter, Qty 1 | PACC-ZD001 |
| Solder-In Lead, Qty 2 | PACC-ZD002 |
| Long Spring Loaded Bendable Ground, Qty 2 | PACC-ZD003 |
| Tip Saver, Qty 2 | PACC-ZD004 |
| Swivel Tip Adapter | PACC-ZD005 |
| Small IC Adapter, Qty 2 | PACC-ZD006 |
| Micro Pogo Pin Tip, Qty 6 | PACC-ZD009 |
| Right Angle Connector Short, Qty 2 | PACC-LD003 |

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- Upgrade to latest software at no charge

Mouser Electronics

Authorized Distributor

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