

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

TELEDYNE LECROY

Teledyne LeCroy ZD500 – 500 MHz, 1.0 pF Active Differential Probe, ± 8 V

Teledyne LeCroy ZD500 500 MHz Active Differential Probe The Teledyne LeCroy ZD500 is a 500 MHz warranted (about 650 MHz typical) active differential probe with less than 1.0 pF differential input capacitance and ProBus interface for seamless gain/offset control on compatible LeCroy oscilloscopes. Differential range is ± 8 V (16 Vp-p) with ± 10 V common-mode range and ± 18 V differential offset range. System noise is about 1.3 mVrms typical. No external power supply is required when used with a ProBus-equipped LeCroy scope. Part of the ZD Series with ZD1000 and ZD1500. The Teledyne LeCroy ZD500 is a 500 MHz warranted (about 650 MHz typical) active differential probe with less than 1.0 pF differential input capacitance and ProBus interface for seamless gain/offset control on compatible LeCroy oscilloscopes. Differential range is ± 8 V (16 Vp-p) with ± 10 V common-mode range and ± 18 V differential offset range. System noise is about 1.3 mVrms typical. No external power supply is required when used with a ProBus-equipped LeCroy scope. Part of the ZD Series with ZD1000 and ZD1500. Automotive and serial-data differential probing; general-purpose active differential measurements to 500 MHz; low-loading measurement of small differential signals; power and embedded debug with ProBus scopes.



MODEL

**Teledyne LeCroy
ZD500**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

ZD500

LISTING

<https://aumictechlabs.com/products/zd500-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Teledyne LeCroy ZD500 is a 500 MHz active differential probe engineered for precision measurement of high-speed differential signals in signal integrity, digital systems, automotive, serial data, and power testing applications. The probe delivers low noise performance with minimal circuit loading through exceptionally low input capacitance of 1.0 pF differential and high input impedance. Its ProBus interface integrates directly with compatible Teledyne LeCroy oscilloscopes, eliminating the need for external power supplies or batteries while enabling full front-panel control of gain, offset, and probe functions.

Technical Specifications
Bandwidth: 500 MHz warranted; 650 MHz typical
Input Capacitance: 1.0 pF differential; 2 pF per side
Input Resistance: 120 k Ω differential mode; 50 k Ω common mode
Maximum Input Voltage: ± 8 V
Differential Range: ± 8 V (16 V_{p-p}); 18 V_{p-p} typical
Differential Offset Range: ± 18 V nominal; ± 8 V warranted
Common Mode Range: ± 10 V nominal; -10 V to 20 V typical
Maximum Non-destructive Voltage: 30 V nominal
Risetime: 650 ps (10–90%); 500 ps (20–80%)
System Noise: 1.3 mV rms typical; 38 nV/ $\sqrt{\text{Hz}}$ noise density
CMRR: 60 dB at 50/60 Hz; 30 dB at 20 MHz; 25 dB at 500 MHz
Gain Accuracy: 2% LF attenuation; 2% offset gain typical
Probe Offset: 5 mV typical (within 15 minutes post-autozero)

Key Features
Transparent probe attenuation with sensitivities from $\times 3$ to $\times 12$
Auto Zero capability for DC offset drift correction
Compact, low-mass probe head suited for dense circuit access
0.025 inch square pin probe tip socket
Swivel Tip Adapter with Z-axis compliance; 0.300 inch tip spacing

Typical Applications
High-speed differential signal measurement
Signal integrity analysis
Serial data and power supply testing
Automotive electronics characterization

Compatibility & Integration
The ZD500 operates with Teledyne LeCroy oscilloscopes running MAUI firmware 6.4.1.x or later, including WaveSurfer, WaveRunner, WavePro, and WaveMaster series platforms. Power delivery and instrument control occur entirely through the ProBus interface.

Features & description

From manufacturer datasheet

Features

- 500 MHz warranted / 650 MHz typical bandwidth

ZD500 Characteristics / Specifications

PARAMETER	VALUE
Model	ZD500
Manufacturer	Teledyne LeCroy
Instrument Type	Active differential probe
Bandwidth Warranted	500 MHz
Bandwidth Typical	650 MHz
LF Attenuation Accuracy Warranted	2%
Zero Offset Typical	5 mV (within 15 min after autozero)
System Noise Typical	1.3 mVrms
Probe Noise Density Typical	38 nV/rHz
Input Differential Range	+/-8 V (16 Vp-p)
Differential Offset Range	+/-18 V
Offset Gain Accuracy Typical	2%
Common Mode Range	+/-10 V
CMRR Typical	60 dB at 50/60 Hz; 30 dB at 20 MHz; 25 dB at 500 MHz
DC Input Resistance Common Mode	50 kohm
DC Input Resistance Differential	120 kohm
Differential Input Capacitance Typical	less than 1.0 pF
Interface	ProBus
Alias	ZD500; Teledyne LeCroy ZD500 Notes Specs from Teledyne LeCroy ZD Series active differential probes datasheet. Confirm ProBus oscilloscope compatibility and tip accessories included with the unit.
Bandwidth	Differential Cin less than 1.0 pF
Attenuation	/ offset

ZD500 Specifications

PARAMETER	VALUE
Teledyne LeCroy ZD500 500 MHz Active Differential Probe	Overview
Key Features	- 500 MHz warranted / 650 MHz typical bandwidth
Technical Specifications	Model: ZD500

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	ZD500
Manufacturer	Teledyne LeCroy
Instrument Type	Active differential probe
Bandwidth Warranted: 500 MHz	
Bandwidth Typical: 650 MHz	
Risetime 10-90% Typical: 650 ps	
Risetime 20-80% Typical: 500 ps	
Specifications	
PARAMETER	VALUE
LF Attenuation Accuracy Warranted	2%
Zero Offset Typical	5 mV (within 15 min after autozero)
System Noise Typical	1.3 mVrms
Specifications	
PARAMETER	VALUE
Probe Noise Density Typical	38 nV/√Hz
Input Differential Range	+/-8 V (16 Vp-p)
Differential Offset Range	+/-18 V
Offset Gain Accuracy Typical: 2%	
Common Mode Range: +/-10 V	
Maximum Non-destruct Voltage: 30 V	
Specifications	
PARAMETER	VALUE
CMRR Typical	60 dB at 50/60 Hz; 30 dB at 20 MHz; 25 dB at 500 MHz
DC Input Resistance Common Mode	50 kohm
DC Input Resistance Differential	120 kohm

Specifications

PARAMETER	VALUE
Differential Input Capacitance Typical	less than 1.0 pF
Interface	ProBus
Alias	ZD500; Teledyne LeCroy ZD500

Notes

Specs from Teledyne LeCroy ZD Series active differential probes datasheet. Confirm ProBus oscilloscope compatibility and tip accessories included with the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.