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Find the *Link Instruments DSO-8502* at our website: *Click HERE*

DSO-8000
USB Oscilloscope
USB Spectrum Analyzer

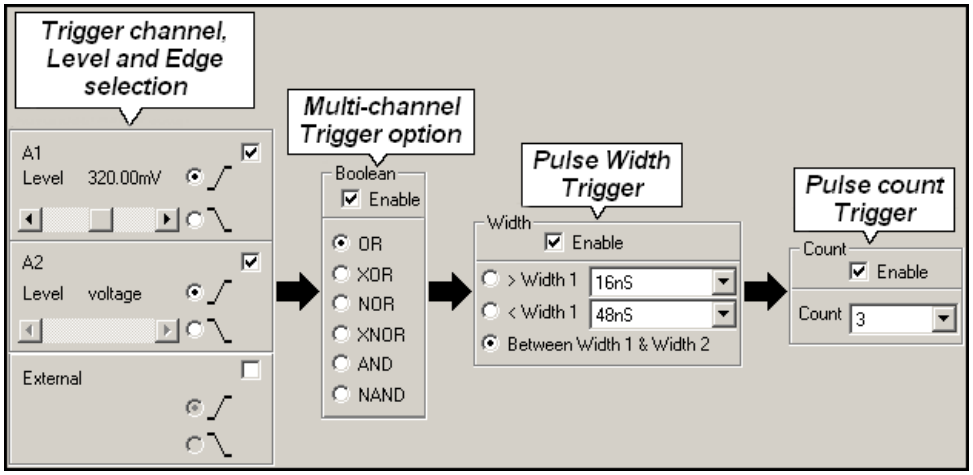


Overview Buy Now

- **High speed sampling**
  Single shot: Up to 500MSa/S
  Repetitive mode: 20GSa/S
  Bandwidth: 100MHz+ bandwidth
- Large capture buffer
  Up to 1Million samples per channel
- USB 2.0 Hi-Speed
- Advanced Triggering
  Level
  Filter
  Pulse width
  Pulse count
  Multi-channel
  TV
- 250 MHz Spectrum Analyzer/FFT
  Dual channel FFT with Averaging, Memory and spectral subtraction.
- History plots (variable persistence with color)
  Review and compare current and previous captures.
- XY Plot
- Auto-setup
- Fast, Accurate Measurements
- Automatic Storage
  With save and export capabilities
- Battery Power
- Easy Installation
- Simple Operation
- FrontPanel™ Oscilloscope software supports Windows
- DLL Libraries (optional)
  DLL and LabView

Advanced Triggering DSO

- Level
- Multi-channel
- Pulse width
- Pulse count
- Filter
- TV
  The high-speed circuit allows you to sample at full speed(up to 500MSa) while triggering on various TV sync signals including individual scan line.
- Adjustable position

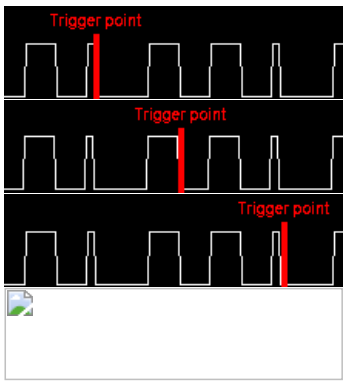


Level Trigger
(e.g. Rising edge at 1 volt)



Pulse width Trigger

(e.g. Pulse less than 200ns)



Pulse count Trigger
(e.g. Third pulse)

Width & Count Trigger
(e.g. Second pulse less than 200ns)

TV Trigger
(e.g. Even frame on horizontal line 11)

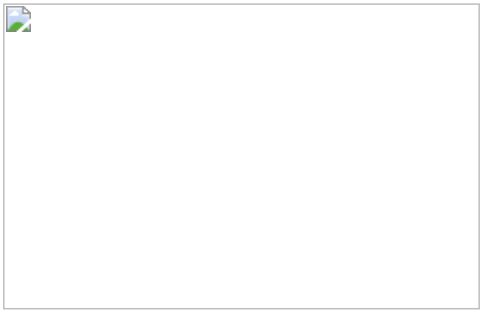
Deep Acquisition Memory

DSO-8502	1 Million point buffer on 1 channel at a sample rate of 500MSa/S. 512K point buffer on 2 channels at sample rates of 250MSa/S and below.
DSO-8202	128K point buffer on 2 channels at sample rates of 200MSa/S and below.

The long buffer lets you sample at high speed while capturing long traces. Other instruments with short memory buffers force you to degrade your sample rate and thus lower your bandwidth. For example if you needed to capture a 100us event using a 1 GSa/s scope with a 2.5k buffer, you would reduce your sample rate to 40 MSa/s, or at best a bandwidth of 10 MHz!". The DSO-8502 would let you view that 100us event at 5GSa/s.

"The big buffer really saved me. With my last oscilloscope I always had to balance recording time and time per division. With Link's scope I can record at the fast sampling rate and still see the entire event." Bob Mitchell, consultant. (beta tester)"

A vast amount of data can be captured in the large acquisition buffer. Often there are many points of interests that are scattered throughout the buffer. QuadVue provides 4 independent timing widows that allow you to focus and analyze the analog and digital data on just the point of interest, instead of constantly panning and zooming after each capture. Each window can even have a different timebase. Since each timing display widow can display its own set of waveforms, one can superimpose mathematically operated data and history memory data on top of the most recent data for quick analysis and comparison.





In this example 4 timing windows are being displayed. Window 1 is showing the entire buffer. Window 2 is showing a zoomed in section around the trigger (Red cursor) event. Windows 3 and 4 are each showing a different part of the waveform and are zoomed differently.

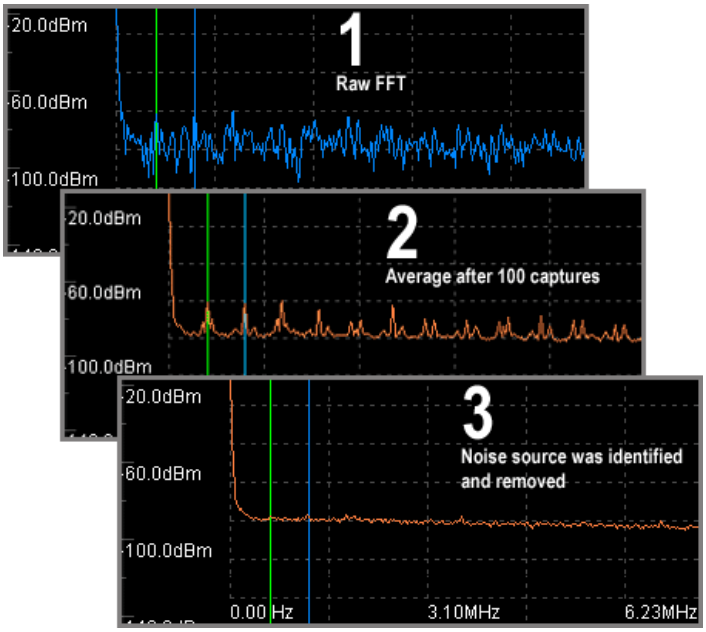
Spectrum Analyzer/FFT

This example shows use of FFT averaging to identify and reduce noise.

Image 1: Spectral plot of noisy output of an Op Amp circuit.

Image 2: Average after 100 captures of the same circuit. Notice how clear the fundamental and harmonic frequencies are displayed and the random noise is suppressed.

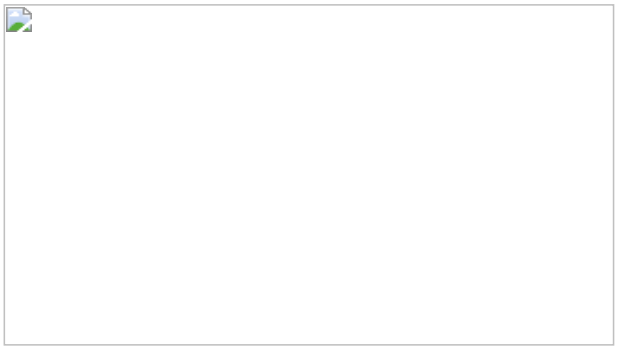
Image 3: The noise source was identified and removed.



Channel History - Better than Persistence mode.

The Oscilloscope can automatically save and display up to 30 previous captures. Each capture will be color coded with the oldest ones fading away.

In this shot the blue trace represents the current capture. The yellow traces are the 30 most recent captures. The older history traces fade to black.

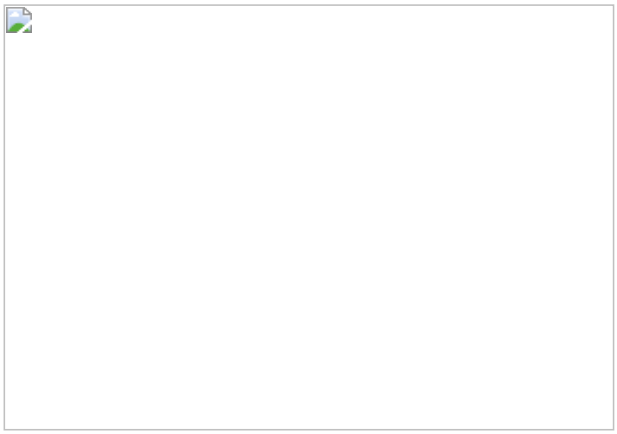


Auto-Setup

With one mouse click the DSO will analyze incoming signals and setup the oscilloscope using advanced analysis routines.

XY Oscilloscope plot

- XY Area (Lissajous curve)
- Angle
- Radius
- Delta X
- Delta Y



Oscilloscope Probes

Two 1x/10x switchable probes are included with the oscilloscope.

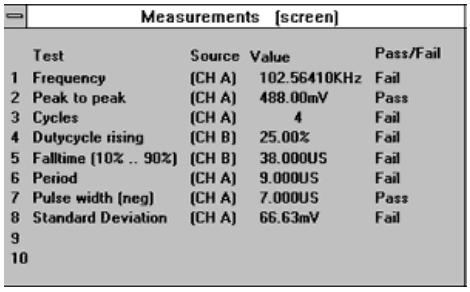
We also sell the following types of probes:

- 1x/10x (2 meter cable)
- 100x
- **Differential Probes**

Waveform Measurements

A powerful suite of over 40 measurements are available. The measurements can be performed on incoming waveform, stored waveform or a mathematically processed waveform. The data cursors can be used to define a subset of data to be measured.

Pass/fail testing based on user specified criteria is also supported. Data can be saved to disk based on the test results.



	Test	Source	Value	Pass/Fail
1	Frequency	(CH A)	102.56410KHz	Fail
2	Peak to peak	(CH A)	488.00mV	Pass
3	Cycles	(CH A)	4	Fail
4	Dutycycle rising	(CH B)	25.00%	Fail
5	Falltime (10% .. 90%)	(CH B)	38.000US	Fail
6	Period	(CH A)	9.000US	Fail
7	Pulse width (neg)	(CH A)	7.000US	Pass
8	Standard Deviation	(CH A)	66.63mV	Fail
9				
10				

Easy Installation

The PC Based oscilloscope connects to the USB port of your computer. To install the oscilloscope all you need to do is plug it into your PC, plug in the power supply and install the software.

The DSO is about the size of a video tape (7" x 3.75" x 1.5"). If you need portability what could be easier than connecting the DSO to your laptop?

Simple Operation

- Installation is a snap.
- Make measurements in your first half hour.
- Simple controls make operation intuitive.
- Perform sophisticated operations that you couldn't even dream of doing with a knob based DSO.
- Save default setups to disk for easy recall at a future date. You don't need to keep a notepad with settings scribbled in it. Just save them to the file name of your choice.
- Data and settings are easily saved to disk.
- Screen shots can be pasted into documents and annotated in your favorite image editing program.

Battery power or wall power

Wall power
Most people will power their DSO with the included wall adapter.

Battery power
The case has a battery holder for 4 AA batteries (NiMH recommended). Using AA batteries allows you to use the DSO away from a power source without draining your laptop's battery.

Automatic Storage

To save time, you can automatically datalog your waveforms to your PC. The data logger can also store only waveforms meeting specific parameter criteria, such as rise times between 20 and 30ns and pulse widths greater than 100ms, etc....

The Windows Oscilloscope software takes advantage of your computer's large color screen.

You can display any combination of Digital Oscilloscope and Spectrum Analyzer traces simultaneously.

Color can be a real time saver. Each display element can be a unique color. This includes each of the Traces, Memories, Cursors, Text, Background, Grid and more.

Stand-alone oscilloscope display screens represent a compromise at best. Few people would choose a 7" or 9" monitor as the screen for their PC. So why use a small monitor for an oscilloscope? Link PC Based instruments let you choose the display monitor size and type for viewing your traces. Plus, you can utilize powerful PC-industry display peripherals such as projectors, remote monitors, and heads-up displays. Many people are now using dual monitor PC's - our software will work there also - Imagine having a 30" wide trace window.

You can take electronic snapshots of the screen and put them into your documents as well as print to your standard windows printer.

The speed of your PC does not significantly affect the performance of our instruments

All of the high speed acquisition is done with the oscilloscope hardware, the speed of your PC is not a factor. The PC is used for display and for the user interface. If your PC is fast enough and has enough memory to run windows well, it will run our products well also.

The Instrument has high speed samplers and buffers. It can acquire at up to 500MSa/s[*1] and stores the data in it's own 1 MegaSample[*1] data buffer. When these buffers are full everything is transferred to the PC.

Software Libraries (optional)

The optional **DLL library** allows users to write custom software to control the instrument. The library works with visual studio, labview and matlab.

Previous (Overview) **Next (Specifications)**

Link Instruments Inc. 17A Daniel Road East Fairfield, NJ 07004 973-808-8990 www.Linkinstruments.com

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