

Design and Debug With The TDS1000 and TDS2000 Series Oscilloscopes



As a designer, you need an oscilloscope that can help you detect, define, and resolve elusive problems quickly. Clock rates, bus speeds, and complexity are all escalating in digital systems. To qualify as a design tool, an oscilloscope - even a low-cost model - must offer high sample rate and bandwidth, plus sophisticated triggering, display, and analysis functions.

The new TDS1000 and TDS2000 Series oscilloscopes answer your needs in a compact, portable, affordable platform. Technologies adapted from Tektronix' world-class laboratory oscilloscopes enable an unmatched package of performance and ease-of-use at prices within your budget.

Performance Leaders in Their Class

► **Bandwidth and Sample Rate**

All models deliver full bandwidth and sample rate on all channels simultaneously, allowing you to view fast transient events on several buses at once.

► **Advanced Triggering**

Pulse width triggering, standard on all models, speeds the search for transients, valuable when tracing setup-and-hold timing violations, a common problem in digital design.

► **Independent Trigger Input**

This input eliminates the need to expend an active signal input, so that all four inputs can be devoted to capturing critical signals.

► **Trigger Signal Frequency Readout**

A dedicated on-screen readout displays the trigger signal frequency, allowing you to confirm that the synchronizing trigger signal is behaving correctly.

► **Fast Fourier Transform (FFT) Math Function**

Fast Fourier Transform (FFT) measurements provide a frequency-domain view of a signal, useful for analyzing harmonics in power lines, measuring harmonics and cross talk, testing the impulse response of filters, and more.

► **Switchable 10X-1X, 200-MHz Probe**

The matching P2200 probe is unique, with its switchable attenuation ranges (1X and 10X), allowing you to use just one probe type for a wide range of measurements.

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Easy-To-Use Tools Speed Up Troubleshooting Work

▶ **Simple User Interface**

Most important control functions are brought to the front panel as analog-style controls (rather than a series of menus and keystrokes), providing a familiar, simple user interface for seasoned engineers and novices alike.

▶ **Color Display**

The TDS2000 family's color display highlights each active trace in a unique color. This saves time, especially in the four-channel instruments, by making it easier to distinguish waveforms at a glance. Associated screen readouts and front-panel controls are similarly color-coded for easy and accurate interpretation.

▶ **Probe Check Wizard**

The probe check wizard ensures optimum probe setup and improves measurement accuracy by guiding you to properly compensate the probe and confirm the probe attenuation factor prior to making measurements.

▶ **Autoset Menu**

The one-button autoset feature causes the instrument to detect and display the waveform type as sine, square, or video. At the same time, it provides different views and displays up to four automatic measurements for the displayed signal.

▶ **Automated Measurements**

A broad selection of standard automated measurements assists you in making fast, repeatable routine tests for frequency, rise and fall time, and more.

▶ **TDS2CMA Communications Module**

It has become common practice to network engineering instruments to a central server to publish test and evaluation results. The optional TD2CMA communications module integrates into the TDS1000 and TDS2000 Series instruments and provides connectivity for networks, printers, and GPIB.