Manufacturing Test and Quality Control With The TDS1000 and TDS2000 Series Oscilloscopes

As a manufacturing test engineer or quality control technician, you need an oscilloscope that delivers adequate bandwidth and accuracy to support critical measurement margins in production. It must be automation-ready and system-compatible. Production personnel of all skill levels must be able to use the instrument to execute fast, error-free measurements and ideally it should be compact enough to fit into the confines of a production test stand.

The new TDS1000 and TDS2000 Series oscilloscopes deliver an unsurpassed package of features for the production line environment. These new products are priced such that multiple-unit purchases are affordable, yet their high performance ensures a long useful life in manufacturing applications.

Performance Meets Growing Demand for Higher Data Rates and Lower Test Margins

- **Bandwidth and Sample Rate**
  All models deliver their full bandwidth and sample rate on all inputs simultaneously. The TDS1000 family offers up to 100 MHz bandwidth at a maximum sample rate of 1.0 GS/s, while the TDS2000 family delivers up to 200 MHz bandwidth and 2 GS/s maximum sample rate. This performance level is suited for the ever-faster clock and data rates of emerging products from computers to consumer items. Moreover, the high bandwidth, coupled with a time base accuracy of 50 parts per million (PPM) and 8-bit vertical resolution, supports narrow measurement margins that maximize throughput and profits.

- **Switchable 1X-10X, 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.

Tektronix®
Enabling Innovation

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Automation and Connectivity Spell Productivity in Manufacturing

- **Automated Measurements**
  A selection of 11 automated measurements assists you in making fast, repeatable tests to the same criteria every time. A single button-press activates procedures that would otherwise take multiple setup and measurement steps, allowing you to complete more measurements in less time.

- **Save/Recall Function**
  All models include a save/recall function to store 10 different front-panel setups. This too ensures consistent, repeatable procedures in production, and saves time. You can easily execute a sequence of setups, one after another, with just one button-press to select the successive steps.

  This save/recall function also stores waveforms with all the details of the original signal acquisition. Each instrument supports waveform record length up to 2.5K points long. Together, these features provide a template for visual comparison against newly acquired waveforms, protecting against "false failures" that can impact throughput and cost-to-test.

- **Probe Check Wizard**
  A built-in 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.

- **TDS2CMA Communications Module**
  For automated production test stands, instruments must be interconnected with a controller, usually via GPIB. An optional TD2CMA communications module is available to integrate the TDS1000 and TDS2000 Series instruments into a system environment. The module also provides connectivity for networks and printers—essential for maintaining a central quality control database.

- **Ultra-lightweight and Compact**
  Small and light, the TDS1000 and TDS2000 Series instruments are compact enough to fit into the confines of a production test stand. The oscilloscopes' package design is similar to the proven Tektronix TDS200 Series, currently found in manufacturing environments worldwide.