

## **Tektronix Delivers Industry-Best Oscilloscopes at Entry-Level Price for Mixed Signal Designs**

### **MSO2000 Mixed Signal and DPO2000 Digital Phosphor Series Offer Feature-Rich Tools and Ease of Use in a Portable Package**

BEAVERTON, Ore., November 18, 2008 - Tektronix, Inc., a leading worldwide provider of test, measurement and monitoring instrumentation, announced the new MSO2000 Mixed Signal and DPO2000 Digital Phosphor oscilloscopes. The new series provide powerful tools to simplify the debug of mixed signal designs including Wave Inspector® search and navigation tools, automatic decoding of serial data busses, unique FilterVu™ variable low pass filters to reduce unwanted noise from signals, all in a portable, affordable package. With bandwidths up to 200MHz, the new series complement the existing MSO4000, DPO4000, and DPO3000 oscilloscope series models providing the most complete and capable oscilloscope offerings for engineers working on embedded system designs.

Virtually every electronic product designed and produced today is an embedded system and may contain microprocessors, microcontrollers, DSPs, RAM, Flash, EEPROM's, FPGAs, A/Ds, D/As, and other I/O. In recent years, embedded system designs have replaced parallel buses with serial data buses such as I2C, SPI, RS-232, CAN and LIN. On a serial bus, a single signal may include address, control, data, and clock information; the complexity presents significant debug challenges for design engineers. The MSO2000 and DPO2000 Series address these problems with the most integrated serial data triggering, protocol decoding, and analysis capabilities in an entry-level oscilloscope. Furthermore, the MSO2000 provides the ability to time-correlate analog and digital signals with up to 4 analog and 16 digital channels, for troubleshooting the mixed signal portions of embedded systems. The MSO2000 and DPO2000 Series are ideal for embedded designers and educators teaching design principles.

“Designers need powerful yet easy-to-use tools for debugging both analog and digital signals and at different price ranges,” said Bob Bluhm, vice president, Value Scopes Product Line, Tektronix. “The MSO2000 and DPO2000 provide excellent performance, serial data debug for common standards, and compelling value. They are part of our new-generation platform that includes the MSO4000, DPO4000 and DPO3000 Series, providing engineers a continuum of options from 100 MHz to 1GHz. The newest models offer intuitive operation, measurement confidence, a portable package, and are ideal for engineers wanting to more efficiently test their designs.”

“The new Tektronix MSO/DPO2000 series scopes will meet many needs, from design to manufacturing and from production repair to service,” said Alfred Mora, electrical engineer, Fixed Scanning Business Unit, Datalogic Scanning, Inc. “It combines scope, logic analyzer, and protocol analyzer features into an easy-to-use, portable package. The mixed signal functionality, serial decode, small footprint, and affordable price provide compelling value.”

#### **Best-in-Class Performance and Ease of Use**

The MS2000 and DPO2000 Series of oscilloscopes each consist of three models ranging from 100 MHz to 200 MHz, with two or four analog channels, the familiar Tektronix front-panel layout, serial triggering, protocol decode, USB plug-and-play PC connectivity, a seven inch widescreen bright TFT display, and a three-year warranty. The MSO2000 models also include 16 digital channels, providing up to 20 time-correlated channels to debug both analog and digital data. All models contain 1M points of record length on each channel and a 1 GS/s sampling rate on all channels, ensuring at least 5X over-sampling of the signal. Additionally, the new models provide 5,000 waveforms per second capture rate to aid discovery of transient

events.

Unwanted noise can make debugging of intended signal attributes a difficult task. The new FilterVu variable low-pass filter provides a powerful tool to block unwanted noise from signals while still capturing glitches and other signal details up to the full bandwidth of the oscilloscope. The new MSO2000 and DPO2000 Series are the only oscilloscopes to simultaneously display the filtered waveform and high frequency details up to the full bandwidth of the oscilloscope.

“Motor drive signals can be particularly noisy,” said Mark Hastings, electrical design engineer, Cypress Semiconductor. “FilterVu on the Tektronix MSO/DPO2000 Series is one of the more unique features we’ve seen on a scope. With FilterVu we were able to filter out motor drive noise and clearly see the underlying digital signal characteristics. The feature will also be useful for demodulating signals. We’ve come to expect this type of innovation from Tektronix.”

The MSO2000 and DPO2000 Series include the groundbreaking Wave Inspector search engine on all analog and digital channels, an unprecedented set of easy-to-use tools that make simple and efficient work of finding events of interest in long records. Wave Inspector also provides the ability to automatically search through an acquisition and mark all occurrences of a user-specified event then navigate between the marks effortlessly. With Wave Inspector navigation, the MSO2000 and DPO2000 Series aid engineers to quickly find and solve difficult problems.

All models include standard a USB host port on the front of the instrument and USB device port on the rear of the instrument. The front USB port supports a USB flash drive. The rear port is USBTMC compatible which enables communication and control via a PC. The rear port is also PictBridge® certified for printing to PictBridge certified printers.

#### Pricing and Availability

U.S. list prices range from \$2,580 for a two-channel 100MHz DPO2012 to \$5,150 for a four-channel 200MHz MSO2024 with an included P6316 digital probe. All new models are available for purchase and delivery. Additional information can be found at [www.tektronix.com/scopes](http://www.tektronix.com/scopes).

A limited version of NI LabVIEW SignalExpress™ Tektronix Edition is included free of charge with the MSO2000 and DPO2000 Series; users can upgrade to the standard version of NI LabVIEW SignalExpress™ Tektronix Edition for a U.S. MSRP of \$699 which includes more than 200 measurement acquisition, analysis, and reporting features. The Tektronix Edition software can be ordered from Tektronix as option SIGEXPTE.

#### About Tektronix

Tektronix is a leading supplier of test, measurement, and monitoring products, solutions and services for the communications, computer, and semiconductor industries - as well as military/aerospace, consumer electronics, education and a broad range of other industries worldwide. With 60 years of experience, Tektronix enables its customers to design, build, deploy, and manage next-generation global communications networks, advanced and pervasive technologies. Headquartered in Beaverton, Oregon, Tektronix has operations in 19 countries worldwide. Tektronix' Web address is [www.tektronix.com](http://www.tektronix.com).

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