Tektronix Newsroom

New Portable Tektronix DPO4000 Oscilloscopes Transform the Market Category

Wave Inspector™ Is 'a Perfect Fit' for Debug Tasks, Making Simple and Efficient Work of Extracting Answers From Waveform Data

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Tektronix, Inc. , a leading worldwide provider of test, measurement and monitoring instrumentation, announced the availability of the DPO4000 Digital Phosphor Oscilloscopes (DPOs), a portable series of models developed upon a new generation platform. The DPO4000 oscilloscope family ranges from 350 MHz to 1 GHz and is the first to offer the groundbreaking Wave Inspector™, an unprecedented set of easy-to-use tools for discovery and efficient viewing, navigating, and analyzing waveform data. With Wave Inspector, serial triggering, protocol decode, USB plug-and-play PC connectivity, a 10.4" XGA display, and smallest footprint in its class, the new portable DPO4000 simplifies debug and sets new standards for productivity, performance, value, and ease-of-use that will transform the market. The DPO4000 will meet the pressing debug needs of embedded systems design engineers.

Embedded systems are incorporated literally everywhere, especially in the consumer electronics, automotive, medical, computer, communications, sub-assembly electronics, industrial and aerospace industries. These various devices -- whether computer printers, automated teller machines, antilock brakes or others -- have traditionally communicated with each other and the outside world using wide parallel buses. Increasingly, embedded systems designs are replacing parallel buses with serial buses such as I2C, SPI, and CAN. 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 DPO4000 Series addresses these problems with the most integrated serial triggering, protocol decoding, and analysis capabilities in its class and represents the ultimate debug tool for engineers working with serial buses such as I2C, SPI, and CANbus.

"Through innovative features such as Wave Inspector and comprehensive support for the serial data standards most often used in embedded device designs, the DPO4000 family of oscilloscopes will help engineers to more quickly find and solve problems," said Bob Bluhm, General Manager, Value Scope Product Line, Tektronix. "With many industry-best features for its class of oscilloscopes, the DPO4000 are ideal for engineers needing to more efficiently design, debug, and test their devices."

Wave Inspector Quickly Locates Difficult to Find Problems

Debugging often requires the capture of significant amounts of waveform data. In response, the DPO4000 provides 10M memory as standard. Long record lengths often represent thousands of screens worth of signal activity. Engineers need to find within this data the information specific to the design problem. The DPO4000 Series Wave Inspector redefines customer expectations for working with long record lengths by making simple and efficient work of extracting needed answers.

Wave Inspector provides a dedicated, two-tier front panel knob for intuitive control of both zooming and panning. A play/pause feature with adjustable speed allows customers to automatically scroll the waveform across the screen while they look for the event of interest. Wave Inspector also provides the ability to search through an acquisition and automatically mark all occurrences of a user-specified event, mark events of interest and navigate between them effortlessly. With Wave Inspector, the DPO4000 provides both the ease-of-use and waveform data granularity needed to quickly find and solve difficult problems.

"The Wave Inspector from Tektronix is one of the most intuitive and useful new features on an oscilloscope since the company introduced MyScope on its high performance products," said Galen Wampler, President, Prime Data. "Wave Inspector is essentially the first instance of a new paradigm for searching through long record length acquisitions; it is to waveform management what search engines are to the Internet. Wave Inspector combined with the long record length and serial data analysis will increase customer expectations in the oscilloscope market."

Most Capable Portable Oscilloscope

The DPO4000 Series consists of 4 models, all with Wave Inspector. The DPO4032 and DPO4034 provide bandwidth of 350 MHz on 2 and 4 channels respectively. The DPO4054 provides 500 MHz bandwidth across 4 channels and the DPO4104 offers 1 GHz bandwidth on 4 channels. The DPO4104 provides 5 GS/s sampling on all channels while the other models provide 2.5 GS/s on all channels. All models come standard with 10M record length on all channels and at least 5x oversampling.

All DPO4000 models provide a 10.4 inch XGA color display; the largest and highest resolution display in its class. The new models provide both USB and CompactFlash on the front panel, enabling the easy transfer of screenshots, setups and waveform data. Not only is the DPO4000 the most capable professional oscilloscope in its segment of the market, at only 5.4 inches deep the DPO4000 is the shallowest on the market -- requiring less bench space than competing products -- and weighs only 11 pounds for enhanced portability. Additionally, all models provide the recently introduced TekVPI probe interface that fosters communication between the DPO4000 and TekVPI probes.

"We are greatly impressed with the new Tektronix DPO4000," said Mathew Jacob, Application Engineering Manager, National Semiconductor. "The small size and portability, serial triggering and protocol decode, standard deep memory and large high resolution display are all great features. To have all of that and then to add Wave Inspector makes this a very special instrument. It could easily become a de facto standard for this class of oscilloscope."

"The DPO4000 provides a massive amount of functionality and usability for embedded serial bus analysis," said Chuck Heger, Chief Technology Officer, Zircon. "It's clear that Tektronix has put tremendous thought and innovation into this product. With an intuitive user interface, great display, strong support for widely used serial data standards, protocol decode, and Wave Inspector, the DPO4000 is transformational by making simple and efficient work of extracting much needed answers from waveform acquisition data. The DPO4000 provides excellent capability and value, a perfect fit for our debug needs."

Seamless Oscilloscope-to-PC Connectivity Leads to Enhanced Productivity

Tektronix has worked with National Instruments to create NI SignalExpress Tektronix Edition, featuring industry-first USB plug-and-play oscilloscope-to-PC connectivity based on USB Test & Measurement Class (USBTMC). Using USB, an auto-detect USB plug-and-play dialog appears on the PC immediately upon connecting to the DPO4000. A single click of the mouse then connects NI SignalExpress Tektronix Edition to the DPO4000 to immediately begin capturing live measurement data from the oscilloscope and displaying on the PC.

Establishing seamless oscilloscope-to-PC connectivity with the DPO4000 and NI SignalExpress Tektronix Edition enables engineers to significantly increase their measurement productivity by performing more online data capture, measurement analysis, and reporting resulting in an overall faster time to information.

"The PC-standard I/O connectivity on the DPO4000, featuring the USB plug-and-play oscilloscope-to-PC integration with NI SignalExpress Tektronix Edition, represents the industry-leading vision of National

Instruments and Tektronix toward improving benchtop measurement productivity through virtual instrumentation," said Dr. James Truchard, NI president and CEO. "The DPO4000 ranks highly among the best instrument designs that I have seen over the years and delivers exceptional value to engineers working on today's electronic designs."

Pricing and Availability

U.S. list prices for the DPO4000 range from $7,000 for the DPO4032 model to $14,000 for the DPO4104 model. All DPO4000 models are available for purchase and delivery. NI SignalExpress Tektronix Edition base version is included free of charge with the DPO4000 Series; users can upgrade to the National Instruments professional version for a U.S. MSRP of $995 which includes more than 200 measurement acquisition, analysis, and reporting features for use with the DPO4000.

Most Complete Mid-Range Oscilloscope Offering

The new DPO4000 compliments the recently introduced DPO7000 Series, providing the most complete and capable portable oscilloscope offering in the market. The DPO4000 series offer the most complete design and debug products in the market with performance of 350 MHz to 1 GHz. With U.S. list prices ranging from $7,000 to $14,000 the DPO4000 Series provides excellent value.

The DPO7000 offer uncompromised performance with the most extensive combination of performance and analysis in its class. With performance ranging from 500 MHz to 2.5 GHz and prices from $14,000 to $25,900 the DPO7000 series is able to address the most demanding design and development needs.

About Tektronix

Tektronix, Inc. is a test, measurement, and monitoring company providing measurement solutions to the communications, computer, and semiconductor industries worldwide. With more than 55 years of experience, Tektronix enables its customers to design, build, deploy, and manage next-generation global communications networks and advanced technologies. Headquartered in Beaverton, Oregon, Tektronix has operations in 19 countries worldwide. Tektronix' Web address is www.tektronix.com.

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