NEW PRODUCT

High-performance oscilloscope family offers extensive analysis capabilities and mixed-signal models

The Yokogawa DLM6000 mixed-signal oscilloscope is the flagship product in a new family of high-performance digital oscilloscopes featuring bandwidths up to 1.5 GHz, memory of 6.25M points per channel, an intuitive graphical user interface and a number of advanced analysis features.

The new oscilloscope family consists of five 4-channel models: the two DLM6000 mixed-signal oscilloscopes with 16- or 32-bit logic capability and bandwidths of 500 MHz and 1 GHz; and three DL6000 versions with bandwidths of 500 MHz, 1 GHz and 1.5 GHz, respectively. All the instruments have a maximum sampling rate of 5 GS/s, apart from the DL6154 1.5 GHz instrument with 10 GS/s. The 16/32-bit logic inputs on the DLM6000 Series models have a maximum toggle rate of 250 MHz or 100 MHz, depending on the probe used.

The new user interface, based on extensive market research including detailed feedback from users, makes the instruments very easy to use. It incorporates a new physical layout with backlit buttons, new on-screen visual elements including graduated menus, and innovative controls including a four-direction selector button and Yokogawa's unique 'jog shuttle' control.

In addition to the exceptional ease of use provided by the new user interface, the oscilloscopes offer an extensive range of capabilities for waveform characterization, powerful tools for detecting glitches and anomalies, advanced signal enhancement and noise reduction technologies, and a range of options for serial-bus analysis and power measurement.

The combination of 32-bit logic inputs and four high-speed analog channels makes the mixed-signal models ideal for the testing and debugging of embedded systems, while the built-in Windows connectivity along with a range of software drivers means that the instruments can easily be integrated into automated test systems.

Advanced logic analysis capabilities include state display and a ‘Virtual D/A’ feature. Moreover, unlike other mixed-signal oscilloscopes on the market, the DLM6000 samples the logic channels simultaneously with the analog channels and at the same maximum speed.

The instruments feature high-speed acquisition and quick response, with an uncompromised update rate of up to 2.5 million waveforms per second, a “History Memory” function for more efficient waveform observation and analysis, and powerful zoom and search functions.

The History Memory function allows the user to recall and display previously acquired data from up to 2000 screens’ worth of past waveforms. This ability to redisplay and subsequently analyze data offers significant benefits in troubleshooting and analysis.

Also included are powerful functions for searching the memory for desired waveforms, and zoom functions for observing these waveforms in detail. In addition to searching based on criteria such as signal edge, pulse, and multichannel state, the History Memory can be searched by serial or parallel waveform patterns and waveform parameters. Users can quickly find desired waveform data in memory, enlarge the area with the zoom function, and scroll the data.

A dual-window zoom function simultaneously zooms in on two areas. Two individual zoom factors and positions can be set with independent timescales and displayed simultaneously. Using the automatic scroll function, it is possible to automatically scroll waveforms captured in long memory and change the position of the zoom areas. Powerful trigger functions include the ability to set trigger conditions using a logic signal as the source. Various trigger conditions can be combined to capture only the desired signals.

Signal enhancement capabilities include new IIR and FIR bandwidth filtering, a high-resolution mode, averaging, and real-time maths channels.

Serial bus analysis options allow analysis to be carried out on I^2C, SPI, CAN LIN and UART bus systems, with triggers for these bus types included in the package. Hardware acceleration enables serial bus analysis to be carried out in real-time. This capability makes it easy to discriminate between partial software failures and physical-layer waveform problems when troubleshooting systems by observing the physical-layer characteristics of signals. With the dual-window zoom function, the instruments can simultaneously analyze and display waveforms from buses running at different speeds.

For further information about the DLM6000, visit http://tmi.yokogawa.com/products/oscilloscopes/digital-and-mixed-signal-oscilloscopes/dlm6000-series/

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About Yokogawa Test & Measurement

Yokogawa Test & Measurement Division is a major worldwide force in the test & measurement market, with products that include oscilloscopes, power meters, wireless and optical communications test equipment, portable test instruments, recorders and data-acquisition systems, and semiconductor-related test systems.

For more information about Yokogawa Test & Measurement, please visit the company's web site at http://tmi.yokogawa.com/

About Yokogawa

Yokogawa's global network of 19 manufacturing facilities and 89 companies spans 32 countries. Since its founding in 1915, the US$4 billion company has been engaged in cutting-edge research and innovation, securing more than 7,500 patents and registrations, including the world's first digital sensors for flow and pressure measurement. Industrial automation and control, test and measurement, information systems and industry support are the core businesses of Yokogawa. For more information about Yokogawa, please visit our web site at www.yokogawa.com.