

OSCILLOSCOPE

## ***Touch screen, zone triggering, and CAN FD***

**Keysight Technologies (US) has introduced Infinii Vision 3000T X-Series digital-storage and mixed signal oscilloscopes with graphical triggering capability. The series supports non-ISO CAN FD.**

*The series offers an 8,5-inch capacitive touch screen and zone touch triggering (Photo: Keysight)*

THIS OSCILLOSCOPE SERIES DELIVERS capacitive touch screens and zone triggering to the mainstream oscilloscope market. The scopes are supposed to help engineers overcome usability and triggering challenges.

The series supports a range of serial bus applications: CAN, non-ISO CAN FD, CAN dbc, LIN, Sent, Flexray, EIA-232/422/485/UART, I<sup>2</sup>C, SPI, MIL-STD 1553 Arinc 429, and P<sup>2</sup>S. The gated FFT function allows engineers to correlate time and frequency domain phenomenon on a single screen.

As digital speeds and device complexity continue to increase, signals under test are getting more complex, and engineers are more challenged to isolate anomalies in their devices. Intuitive graphical triggers, previously unavailable in mainstream oscilloscopes, help engineers debug and characterize their devices. With graphical triggers, users can use a finger to draw a box around a signal of interest on the instrument display to create a trigger.

The oscilloscope series offers upgradable bandwidths from 100 MHz to 1 GHz in addition to the touch screen interface and graphical zone triggering capability. An update rate of one million waveforms per second gives engineers visibility into signal details. The series comes with six-instruments-in-one integration, including oscilloscope functionality, digital channels (MSO), protocol analysis capability, a digital voltmeter, a WaveGen function/arbitrary waveform generator, and an 8-digit hardware counter/totalizer. Finally, the 3000T X-Series delivers correlated frequency and time domain measurements using the gated FFT function for the first time in this class.

“These new scopes give engineers using mainstream oscilloscopes an uncompromised ability to find and isolate the most difficult problems in their designs,” said Dave Cipriani, vice president and general manager of Keysight’s Oscilloscope and Protocol Division. “Design-for-touch operation improves their debugging efficiency. Mixed-domain analysis capabilities with time-correlated frequency/time domain measurements, six-in-one integration and a rich set of advanced features accelerate their problem solving.”

The series was designed specifically for operation with a capacitive touch screen. To further improve productivity, the interface includes an alphanumeric touchpad that replaces knob-based operation and touch-based interaction that enables greater flexibility in displaying measurement information. The user interface allows the user to use the alphanumeric pad for quick annotation, place waveforms or cursors in exact positions, and drag docking panels across the screen to see more measurement information. The series offers three ways to access key menus and features: touch GUI for those that prefer tablet or smart phone touch interfaces, front panel buttons and knobs for the traditional oscilloscope users, and Keysight Insight pull down menu for users who prefer Windows-like operations. The series also offers a “touch off” button as well as USB mouse and keyboard support.

With the series’ high-speed waveform update rate, even with the digital channel, protocol decode, measurements, and math functions turned on and simplicity of zone touch triggering, engineers have the highest probability of discovering anomalies of interest. The series includes 100-MHz, 200-MHz, 350-MHz, 500-MHz, and 1-GHz models. The standard configuration for all models includes segmented memory, advanced math, and 500-MHz passive probes.