Tektronix Newsroom

Tektronix Introduces Second Generation IsoVu Isolated Oscilloscope Probes

New TIVP Series Probes Offer Smaller Size and More Capabilities. Bringing Cutting Edge Isolated Measurements to Entire Power System Design Market

BEAVERTON, Ore., Oct. 27, 2020 /PRNewswire/ -- Tektronix, Inc. today announced its second-generation IsoVu™ Isolated Oscilloscope Probes, the TIVP Series, which significantly advance the capabilities of the ground-breaking probes first introduced in 2016. The second-generation IsoVu™ probes extend the applications for isolated probe technology to the entire power system design market with a smaller size, improved ease of use, and enhanced electrical performance.

Making accurate measurements on high-speed ungrounded systems can be nearly impossible using traditional differential probes. Engineers working with wide-bandgap technologies such as SiC and GaN face difficult challenges to accurately measure and characterize devices due to the higher frequencies and switching speeds involved. By galvanically isolating the probe from the oscilloscope, IsoVu probes have completely changed how power researchers and designers make wide bandgap power measurements.

"When first introduced, the IsoVu probes represented a true breakthrough for our customers because they could gain actual insight into the performance of the high side of their half-bridge designs, eliminating a significant blind spot," said Suchi Srinivasan, general manager of Tektronix mainstream solutions. "With this second generation of IsoVu, we are making this cutting edge isolated measurement technology accessible to a broader range of customers for such tasks as product level R&D, validation and EMI troubleshooting."

IsoVu Gen 2 Features and Options

Like the first generation, the new IsoVu Gen 2 probes use patented electro-optical technologies to capture signals and power the probes without the need for an electrical connection to the oscilloscope. Compared to traditional high voltage differential probes, IsoVu probes offer a unique combination of high bandwidth, dynamic range and best-in-class common-mode rejection ratio (CMRR) over the probe's full bandwidth. Non-isolated probes' CMRR ratings derate quickly as frequency increases, making higher frequency measurements impossible. The use of optical cables also allows for long cable lengths and makes the probes largely immune to EMI.

Building on the success of the original IsoVu series, the IsoVu Gen 2 probes offer an impressive set of upgrades and enhancements across the board, including:

- **Smaller size** – At about one-fifth the size of the first generation, the TIVP Series probes make it easier to access hard to reach measurement points that were previously inaccessible. Additionally, the separate controller box has been condensed and is now self-contained inside the probe's compensation box.
- **Improved sensitivity** – The new probes are more sensitive, with less noise at +/- 50V measurements for greater visibility and voltage sensitivity in wide bandgap measurements.
- **Greater accuracy** – The new probe offers enhanced accuracy in a number of areas including improved DC accuracy, enhanced gain accuracy over the full input range and improved temperature drift correction. These enhancements enable deeper characterization of wide bandgap designs for increased energy efficiency.
- **Less tip swapping** – With wider dynamic range at the sensor head, fewer tips are required to cover the same voltage range as IsoVu Gen 1. This shortens the time needed to perform device testing, eliminates potential errors when swapping tips, and lowers the cost for customers that needed to purchase multiple tips on IsoVu Gen 1.

"IsoVu technology has been critical in our support of customers adopting our Power Conversion technology in their designs," says Cam Pham, Global Automotive Field Application Engineer Leader, Wolfspeed, a Cree Company. "With its galvanic isolation capability, IsoVu technology enables us and customers to accurately characterize high side events with confidence."

Availability and Pricing

The TIVP Series probes are now available worldwide in bandwidths ranging from 200 MHz to 1 GHz and are priced from $9,000 USD. For more information go to https://www.tek.com/isolated-measurement-systems.

About Tektronix

Tektronix, Inc., headquartered in Beaverton, Oregon, delivers innovative, precise and easy-to-operate test, measurement and monitoring solutions that solve problems, unlock insights and drive discovery globally. Tektronix has been at the forefront of the digital age for over 70 years. More information on our products and solutions is available at Tek.com.

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