Keysight Technologies Announces Breakthrough Technology Enabling the World's Highest-Bandwidth Oscilloscopes



New Chipsets Enable Keysight to Deliver Real-Time and Equivalent-Time Oscilloscopes with Bandwidths Above 100 GHz

#### Highlights:

- New Chipsets Enable Keysight to deliver real-time and equivalent-time oscilloscopes with bandwidths above 100 GHz
- Significantly flatter response at high frequencies
- Higher measurement accuracy because of low-noise, nonconductive substrates
- Higher reliability due to lower power consumption

SANTA ROSA, Calif., March 1, 2016 – Keysight Technologies, Inc. (NYSE: KEYS) today announced a technological breakthrough for building the world's highest-bandwidth oscilloscopes with the successful turn-on of chipsets that take advantage of Keysight's leading edge Indium Phosphide (InP) semiconductor technology. The new chipsets will enable Keysight to deliver real-time and equivalent-time oscilloscopes in 2017 that offer bandwidths greater than 100 GHz with significantly better noise floors than what is currently on the market.

Bandwidth is not the only major breakthrough in the new oscilloscope families. The real-time oscilloscopes will feature other key innovations, including a new 10-bit analog-to-digital converter (ADC) that allows higher vertical resolution of signals captured at ultra-high bandwidth, and more than one maximum bandwidth input channel per oscilloscope to enable tight channel synchronization. Keysight achieves these results with its unique expertise in microwave semiconductor design and packaging, oscilloscope architecture and in-house fabrication technology.

"Keysight continues to innovate in the Indium Phosphide process to deliver leading performance to meet our customers' measurement needs," said Jay Alexander, senior vice president and chief technology officer of Keysight Technologies. "Our expertise in microwave semiconductor technology has allowed us to deliver the next-generation Indium Phosphide process to create a breakthrough in real-time and equivalent-time oscilloscope performance, and it will enable significant advancements in other Keysight products over time as well."



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Engineers working with next-generation, high-speed interfaces, such as the upcoming IEEE P802.3bs 400G, as well as terabit coherent optical modulation, will need oscilloscopes for electrical parametric measurements. These technologies and others will play a key role in validating fifth-generation wireless (5G) designs. And these interfaces will drive the need for high-performance, real-time and equivalent-time signal analysis capabilities to 100 GHz and beyond. As data rates continue to extend beyond 56 Gb/s NRZ and 56 GBaud multi-level signaling, engineers will need not only higher bandwidth, but also higher vertical resolution and lower noise floors to address their validation challenges, and the new chipsets have been designed with this in mind.

Six years ago, Keysight released its first oscilloscope with chipsets built in the company's proprietary InP semiconductor process, and today Keysight is still the only company that produces oscilloscopes made with InP chipsets. Investing in the next-generation InP process has allowed Keysight to scale the transistor switching frequencies beyond the 300-GHz level, enabling higher bandwidths in both the chips and the end products.

"Keysight is investing in a completely new technology chain to meet the next-generation measurement needs of our customers," said Dave Cipriani, vice president and general manager of Keysight's oscilloscope business. "Our goal is to move multiple performance parameters ahead simultaneously. The next-generation oscilloscopes deliver bandwidths starting at 80 GHz and going beyond 100 GHz. They will have a lower noise density, providing higher-resolution measurements in tightly-synchronized, multi-channel systems. Whether customers are measuring higher baud rates, higher order QAM signals or multi-channel systems, these next-generation scopes will meet their needs."



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This announcement comes at the start of Keysight's Scope Month, an entire month focused on celebrating breakthrough technology and the engineers who enable it. In addition to this announcement, Scope Month (March 2016) will offer new oscilloscope measurement tips and content, access to measurement experts and daily oscilloscope giveaways.

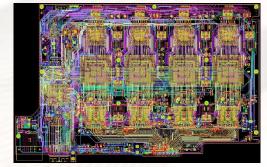
Keysight currently offers high-performance Infiniium Z-Series oscilloscopes with bandwidths up to 63 GHz and multi-channel equivalent time oscilloscopes with bandwidths over 70 GHz. Additional information is available at Keysight oscilloscopes.

#### **About Keysight in Digital Test**

Keysight's solutions for digital applications are driven and supported by Keysight experts who are involved in various international standards committees. Keysight experts are active in the Joint Electronic Devices Engineering Council (JEDEC), PCI Special Interest Group (PCI-SIG®), Video Electronics Standards Association (VESA), Serial ATA International Organization (SATA-IO), USB Implementers Forum (USB-IF), Mobile Industry Processor Interface (MIPI®) Alliance, Ethernet standards (IEEE 802.3), Optical Internetworking Forum (OIF) and many others. Keysight is committed to involvement in standards groups and related workshops, plugfests and seminars to ensure the right test solutions are created to meet customers' evolving needs.



Das aktuelle top Model von Keysight mit 63 GHz Bandbreite. DSAZ634A Infiniium Oszilloskop





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