

AWG touts 50 GS/s sample rate for high-speed test apps, advanced research



Tektronix unveiled its next generation of arbitrary waveform generators that offer up to 50 GS/s sample rate performance. The new AWG70000 Series supports a range of demanding signal generation requirements in defense electronics, high-speed serial, optical networking and advanced research applications. The device combines 50 GS/s sample rate performance, 16 GS of waveform memory, and 10 bit vertical resolution to produce fast, clean signals that can be routed through a receiver or other device under test for long periods of time. The AWG70000 Series gives design engineers and researchers the ability to create, generate or replicate ideal, distorted or “real-life” signals, an essential step in the design and measurement process.

By offering easy generation of very complex signals with complete control over signal characteristics, the AWG70000 Series can meet the measurement challenges in the following applications:

Defense Electronics – The AWG70000 offers bandwidth on demand by generating wide bandwidth signals at baseband, IF and RF frequencies up to 20GHz, with greater than -80 dBc dynamic range. With up to 16 GSamples of waveform memory, it can generate unique signals that are long enough to simulate real world environments.

Optical – Researchers developing new and faster optical technologies can use the sample rate and high vertical resolution of the AWG70000 to very high bandwidth signals with good spectral purity. Multiple units can be synchronized together to provide a complete IQ signal generation at these high bandwidth.

High-Speed Serial – A number of next generation serial buses have intense signal generation needs. For instance, the AWG70000 offers a two-box solution for HDMI 2.0, supporting four lanes at 6 Gbps per lane. It gives designers the ability to add impairments to waveforms directly, eliminating the dependency on hardware elements to generate the necessary signals.

Advanced Research – The AWG70000 Series is ideal for a variety of research applications, giving scientists the ability to create high precision, high-speed non-

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standard waveforms. With the AWG70000, engineers and researchers can now generate signals that they previously could not generate.

Tektronix, www.tektronix.com [1]

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[1] <http://www.tektronix.com>