



VeriWave 3x3 MIMO Signal Generator Cuts Test Costs 50-75%

“WaveGen” Integrates Channel Emulation, Generates Infinite Number of Waveforms; Reduces Test Times from Days to Hours

PORTLAND, OR, January 19, 2009 – VeriWave is introducing the industry’s most efficient 3x3 MIMO signal generator equipping RF / baseband design teams and testers with expanded test coverage while reducing test times and cutting overall test costs 50-75%. With 3x3 MIMO (multiple input /multiple output) radios making their way into more mobile devices, VeriWave’s WaveGen solution meets the growing need to verify radio accuracy by significantly reducing the amount and complexity of equipment needed to conduct these tests.

Designed by RF engineers, WaveGen replaces three individual signal generators, one for each spatial stream, and a separate channel emulator, with one, integrated, test device, thereby reducing equipment costs from \$250,000 to \$65,000. By offering an endless variety of wave-forms automatically generated by the test hardware, WaveGen also vastly reduces engineering efforts involved in creating I/Q wave-forms and manually synchronizing them, saving countless hours spent by DSP engineers.

“WaveGen introduces the industry’s first integrated 3x3 MIMO signal generation solution, making the test process faster and more efficient,” says Eran Karoly, VeriWave’s VP of Marketing. “With 3x3 MIMO now being deployed on Access Points and making its way into laptops, smart-phones and other mobile devices, making it simpler and less costly to test allows chip and device manufacturers to quickly verify their designs, avoiding costly radio re-designs.”

Before & After

Prior to WaveGen, the only way to test 3x3 MIMO radios was to stitch together three individual signal generators, one for each spatial stream. These signal-generating devices would have to be synchronized to create a 3x3 signal using complex and expensive hardware and software with I/Q waveforms created by DSP engineers through a laborious process. After each test run, new I/Q files have to be created. Automation is out of the question.

WaveGen revolutionizes signal testing in four distinct ways:

- With WaveGen, complete MIMO signals are generated by a single VeriWave hardware blade and are automatically synchronized using the WaveGen software. This offers testers unlimited numbers, types, test durations, and combinations of 802.11n and legacy wave-forms without record length limitations.
- WaveGen is the first to integrate channel emulation, the process of subjecting the signal to real-world traffic conditions by “emulating” environments like hallways, office buildings and the outdoors. Not only does this negate the need for a separate, distinct and expensive channel emulator, VeriWave’s integrated solution allow testers to vary channel emulation on a frame-by-frame basis, a feature not available on any stand-alone channel emulator.
- Additional savings arise from testers being able to use the same VeriWave test hardware used for signal generation to also perform client/traffic generation for extensive performance testing.
- WaveGen offers direct wave-form frame definition through a simple point & click Graphical User Interface (GUI), avoiding laborious programming previously associated with wave-form signal generation.

Pricing & Availability

Available now, pricing for WaveGen 3x3 MIMO signal generation with integrated channel emulation begins at \$65,000. For more information, visit www.veriwave.com or call (503) 473-8350.

About VeriWave

Testing with VeriWave ensures maximum performance for mobile networks, devices and applications in the real world. From development through deployment and beyond, VeriWave helps leading manufacturers, service providers and users measure, analyze and improve speed, quality, interoperability, compliance and other pivotal aspects of mobile performance. For more information about VeriWave, call (503) 473-8350, or go to www.veriwave.com

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