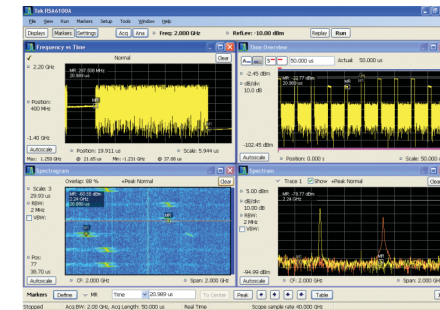
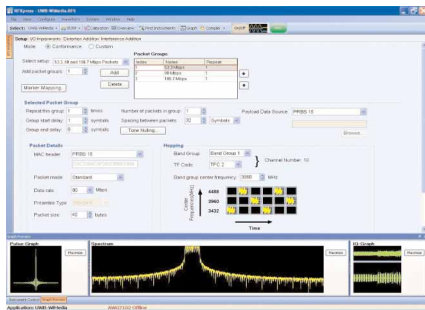


WiMedia UWB Solutions Fact Sheet

Faster, easier, and more affordable ultra-wideband designs

Resolve design challenges quickly and efficiently with the industry's most comprehensive tool set for ultra-wideband technologies. Create wideband signals directly for all band groups and Time Frequency Codes, introduce real-world impairments for receiver margin testing, analyze signals completely with automatic WiMedia UWB measurements, and export signals for debug and post processing.

WiMedia UWB test requirements are some of the most complex among current wideband RF standards. A designer needs to verify a large number of PHY Layer parameters before a design freeze can be justified. A powerful, flexible test solution that addresses these requirements improves time to market for WiMedia UWB designs.



Tx/Rx Signal Generation Challenge

- Generate controlled and reproducible WiMedia UWB signals in all band groups and at all Time Frequency Codes and data rates
- Assess real-world impairments to test the robust receiver design and determine receiver sensitivity and immunity to in-band and out-of-band interference
- Determine sensitivity to other UWB devices that appear as gated wideband noise
- Future-proof design validation with Detect and Avoid (DAA) receiver validation

PHY C&I Tx/Rx Compliance Testing

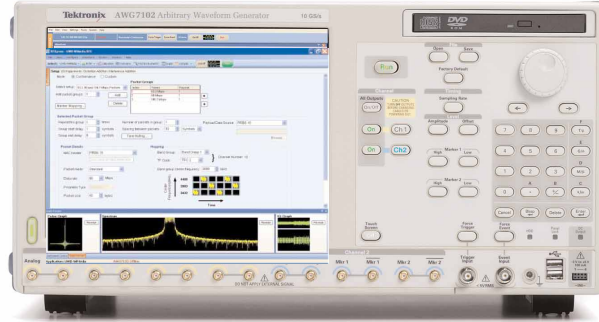
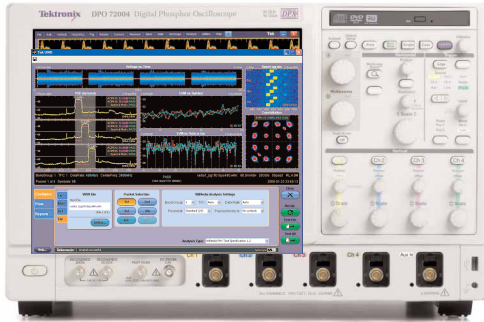
- Simplify measurement of signal states (modulation type, data rate, Time Frequency Coding)
- Easily create signals for known test patterns
- Perform multi-domain analysis of data (view the time domain, spectrum, power spectral density, and modulation quality)
- Thoroughly document results of all compliance measurements with a single acquisition

Interference and Troubleshooting

- Debug signals during over-the-air testing and determine interference conditions
- Determine optimum test setup conditions and channel frequency response
- Export capture signals to development tools for off-line processing during early stages of design
- Detect root cause analysis of RF signal impairments

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Transmitter Analysis

DPO/DSA Series Oscilloscopes with Option UWB Software

- Best RF performance oscilloscopes with industry-leading, single-shot bandwidth maintained on all channels
- DPX® technology quickly identifies idle and packet traffic information to determine proper PHY function for test
- High-performance trigger simplifies analysis of UWB radios with the ability to trigger on data packets
- Deep memory options for long record analysis
- Option UWB application software simplifies PHY testing with automated compliance measurements and reporting
- For PSD, auto rate detection, time frequency coding, EVM, constellation, EVM vs time

Receiver Testing

AWG Series Arbitrary Waveform Generators with RFXpress® Software

- Industry-leading sample rate and bandwidth for direct generation of all WiMedia UWB Band Groups
- Generate all Time Frequency Codes, including hopping sequences directly
- Playback oscilloscope captured waveforms, and add common impairments like interference, non-linear distortion, and gated noise simulating other UWB devices
- Simplified user interface utilizes WiMedia UWB definitions
- Test detail block of WiMedia UWB receivers with a custom frame coding user interface
- Generate signals with tone-nulling, future Detect and Avoid (DAA) technology

RF Troubleshooting

RSA Series Real-Time Spectrum Analyzers and DPO/DSA Series Oscilloscopes with SignalVu™ Software

- Industry-leading performance spectrum analyzer with the widest real-time bandwidth and dynamic range
- Discover signals with Live RF, over 48,000 updates per second, nearly 500 times faster than the fastest swept spectrum analyzer
- Determine RF response during over-the-air testing
- See in-band interference in the presence of UWB signals
- RF signals can also be analyzed directly in the DPO/DSA Series oscilloscope with SignalVu™ Software

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