EMI / EMC Solutions Fact Sheet

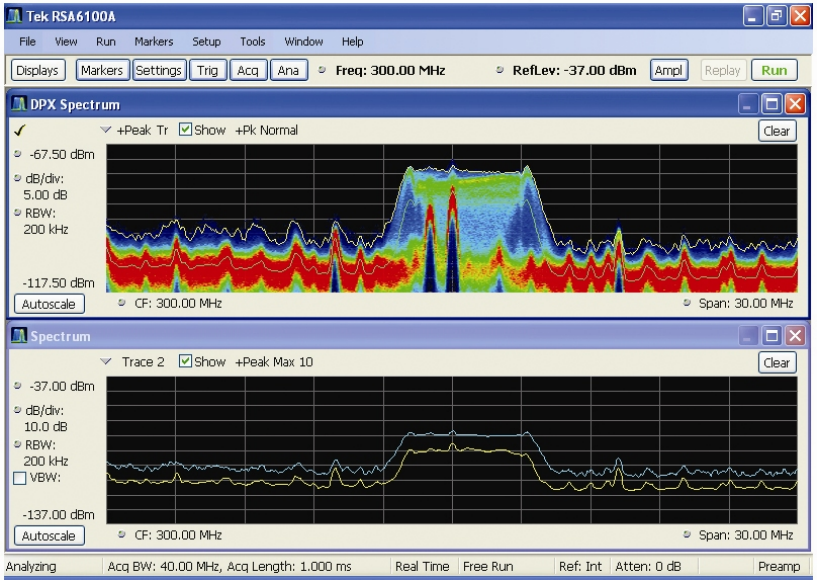
Delivering Confidence to Confront the Most Challenging Microwave and RF Designs

In the world of Electromagnetic Compatibility (EMC), different equipment and techniques are used at different stages of design, qualification, and commissioning. While governed by industry, national, and international conformance requirements, many sensitivity electronic devices need to test beyond compliance to ensure functionality. The performance impact of low-level noise, susceptance to internal impulse noise, and the stability of clocks and Phase Locked Loops must be understood to ensure proper device functionality and RF manufacturing integrity.

Elusive events are difficult to discover, trigger, capture, and analyze without the unique insight and confidence provided by Tektronix real-time spectrum analyzers.

EMI/EMC Challenges:

Diagnostics and Debug	▪ LO feed thru ▪ Detecting low-level signals in broad sweeps with narrow Resolution Bandwidths ▪ Detecting and characterizing impulse noise ▪ Finding signals-within-signals ▪ Determining clock stability and settling to tuning, microphonics, and phase-hits ▪ Correlating transient emissions to hardware and software states
Pre-Compliance and Compliance	▪ Testing to standards and compliance levels with required filters and detectors ▪ Applying corrected measurements and limit lines
Field and In Situ Testing	▪ Reproducible test results for in-channel, in-band, and out-of-band performance ▪ Detecting low level interference ▪ Triggering on changes to ambient conditions ▪ Documenting emission levels against location ▪ Simplifying DF tools for locating radiation sources



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Pre-Compliance and Compliance

RSA5000/6000 Series Real-time Spectrum Analyzers

- Discover elusive transient, impulse, and signal-within-signal events with 100% probability with over 292,000/s spectrum updates and swept DPX
- Trigger and isolate spectrum events with 100% probability using patented DPX Density™, Frequency Mask, and Time-qualified Triggering, Frequency Edge, and cross-trigger oscilloscopes or logic analyzers within the event record
- Capture long event records with up to 110 MHz of bandwidth
- Analyze signals with MIL-STD and CISPR compliant filters and detectors
- Quickly assess compliance with corrected data and limit lines displayed
- Speed spur testing with the fastest scanning technology for wide spans and narrow resolution bandwidths

Diagnostic and Debug

RSA3000 Series Real-time Spectrum Analyzers

- Discover elusive transient, impulse, and signal-within-signal events with 100% probability with over 48,000/s spectrum updates
- Trigger and isolate spectrum events with 100% probability using patented frequency mask triggering and cross-trigger oscilloscopes or logic analyzers within the event record
- Capture long event records with up to 36 MHz of bandwidth
- Analyze signal stability with automatic settling analysis and pulse measurement analysis
- Speed spur testing using full real-time bandwidth

Field and In Situ Testing

H600/SA2600 Series Real-time Spectrum Analyzers

- Discover elusive transient, impulse, and signal-within-signal events with 100% probability with over 10,000/s spectrum updates
- Trigger on changes in ambient or limit thresholds
- Document emission levels with integrated mapping and measurements for indoor and outdoor use
- Locate interference signals faster with simple direction finding tools
- Speed interference troubleshooting with built-in automatic signal classification capability

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