

Cellular Communications Solutions Fact Sheet

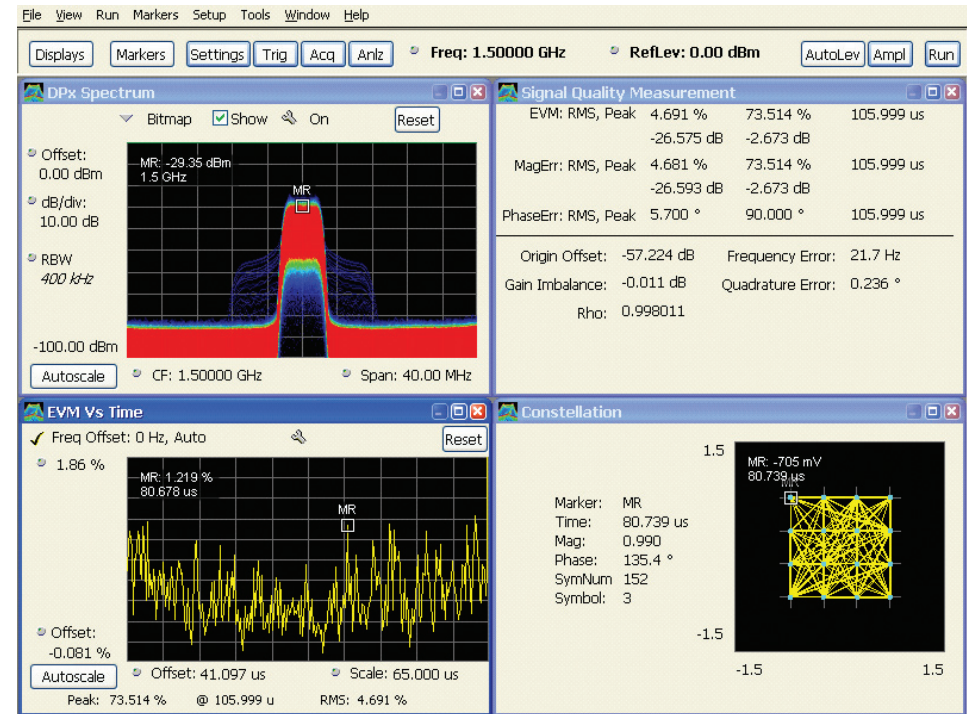
Delivering Confidence to Confront the Most Challenging RF Designs

The new bursted complex wireless standards to service data (HSPA, 1xEV-DO, and WiMAX) can wreak havoc for wireless systems that had been developed to operate with somewhat steady state signals. Combinations of software-controlled modulation rates, amplitudes, frequencies and linearization filtering can create temporal anomalies in spectrum behavior.

Due to the transient bursted nature of the wireless signals and the desire to fine tune operating efficiency and spectrum performance at an acceptable level of modulation quality, it is imperative that correlated analysis of spectrum (ACPR), amplitude statistics (CCDF) and modulation quality (EVM) can be assessed on the same set of time-varying data. While traditional spectrum analyzers and vector signal analyzers can tell you how to PASS a test, Tektronix Real-Time Spectrum Analyzers can discover the transient failures of radio behavior that can impair communication links and system performance.

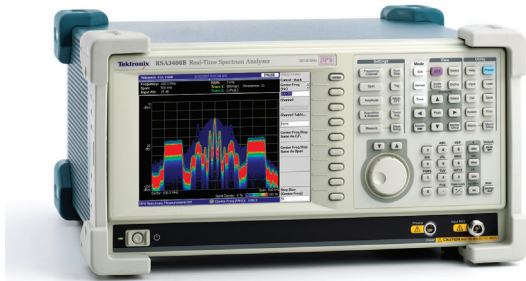
Cellular Communications Challenges:

Transmitter Design Validation	<ul style="list-style-type: none"> ■ Determining self-jamming of interference with other wireless communications on end-device ■ Determining boundary or margin characterization performance ■ Correlate multi-domain measurements: time, frequency, modulation, and statistics with a single acquisition
Transmitter Compliance	<ul style="list-style-type: none"> ■ Assessing key performance to standards with repeatable setups ■ Assessing low level spurs with narrow resolution bandwidths
Field Validation	<ul style="list-style-type: none"> ■ Mapping basestation signal strength for indoor and outdoor environments ■ Detecting and classifying signal interference in the field



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Design Validation and Compliance

RSA3000 Series Real-time Spectrum Analyzers

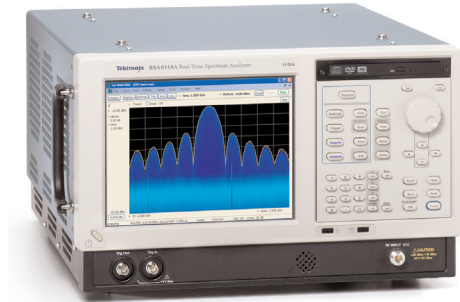
- Discover elusive spectrum events in-channel and adjacent channels with 100% probability with over 48,000/s spectrum updates
- Trigger and isolate spectrum events with 100% probability using patented frequency mask triggering
- Capture long records across in-channel and adjacent channel bandwidth
- Get repeatable results faster with standards-based measurements and automatic analysis
- Speed troubleshooting with correlation of frequency, time, modulation, and statistical domain on a single acquisition



Field Validation

H/SA Series Real-time Spectrum Analyzers

- Discover elusive spectrum events with 100% probability with over 10,000/s spectrum updates
- Trigger and isolate spectrum events with threshold analysis
- Map signal coverage directly with integration mapping functionality for indoors and GPS-assisted for outdoors
- Locate interference signals faster with simple Direction Finding tools
- Speed interference troubleshooting with built-in automatic signal classification capability



Design Validation

RSA6000 Series Real-time Spectrum Analyzers

- Discover elusive spectrum events across the entire operations band 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
- Capture all signals in-channel and in-band across the entire operations bandwidth
- Speed spur testing with the fastest scanning technology for wide spans and narrow resolution bandwidths