

Replicate RF Environments in the Lab

Capturing and recording real-world signals from defined locations allows repeatable playback and analysis at your convenience

Predicting Performance in a Crowded Spectrum

The ability to prove performance early in any program allows extra time for course-correction, giving you the confidence to keep your project on track.

As the electromagnetic spectrum becomes progressively more crowded, it is increasingly difficult to define and simulate test environments that represent real-world scenarios. Testing in the field can be both time-consuming and expensive, with little probability of replicating specific vulnerabilities and less chance of investigating the root-cause.



Prove Coexistence Under Realistic Conditions

Now you can expose your design models and early prototypes to the diverse environments they would not otherwise encounter until deployed in the field.

Whether you need to replicate ISM signals on a busy station platform, radar signals around a proposed 5G cell-site or adjacent interference at a satellite ground-station, Keysight provides the ability to capture and re-create your choice of environment and use different scenarios repeatably in the lab as part of your performance test suite.

Extended Applications and Support

General purpose hardware and software allow additional possibilities for wideband signal capture, post-capture analysis, custom signal creation and wideband signal generation. You can rely on Keysight's worldwide delivery and support services to fulfil the exact functionality you need, and to sustain your program for its duration.

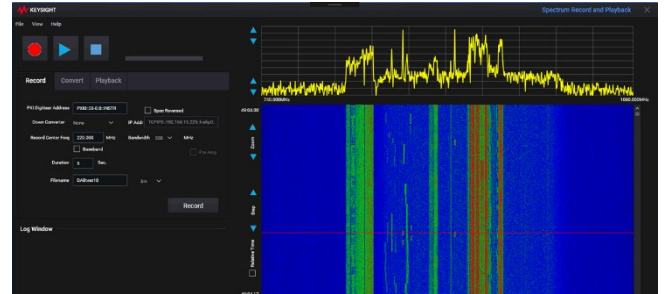


Record and Playback Capabilities

A cost-effective solution for replicating actual signals from real locations.

Graphical user interface

- Initiate recordings
- Preview spectrum and spectrogram
- Create and access a signals library
- Replay signal environments



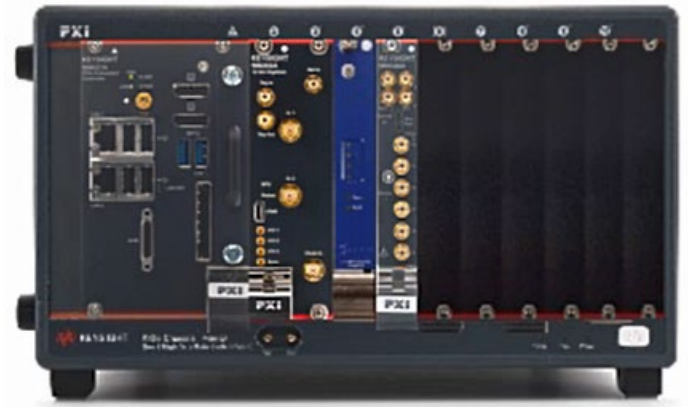
Example software user interface

Compact, commercial off-the-shelf hardware

- Wideband signal capture
- Streaming signal storage
- Wideband signal generation
- Comprehensive signal analysis

Scale for additional functionality

- Preselection and filtering
- Up and down conversion
- Multiple channels
- Extra memory depth



Compact PXIe configuration

Conclusion

Crowded spectrum represents a challenge for radio coexistence and systems performance. Design validation benefits from both simulating the RF environment *and* exposure to real-world signals. The ability to do this in the lab, in a controlled and repeatable way, provides confidence early in the design-cycle.

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