

RF Communications Jamming

Keysight Technologies and
X-COM Systems

Achieve optimum communications jamming with RF capture and playback

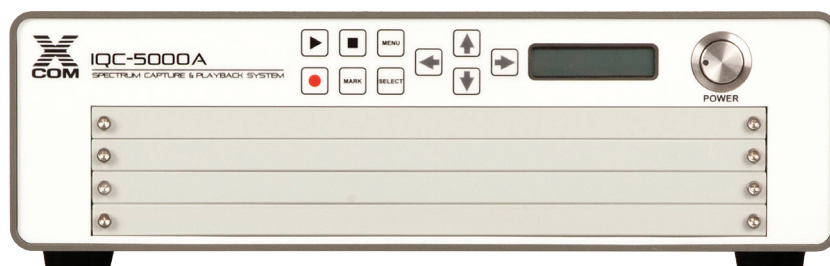
In all areas of military conflict the ability to jam remote detonation signals for explosive devices is critical in order to protect military and civilian personnel and equipment. However, this jamming has to be achieved in a way that does not compromise the integrity of military communications, radio sensing and GPS navigation systems.

The development of effective jamming solutions requires the analysis of the complex RF environment that exists when multiple communications systems are in use. Only by analyzing the RF environment in detail can the correct decisions be made on the required signal-to-noise ratio, the optimum waveforms to use and the mechanisms by which the detonation signal can be jammed. This detailed analysis requires the capture of RF information and spectral activity, in the field, over an extended period of time.

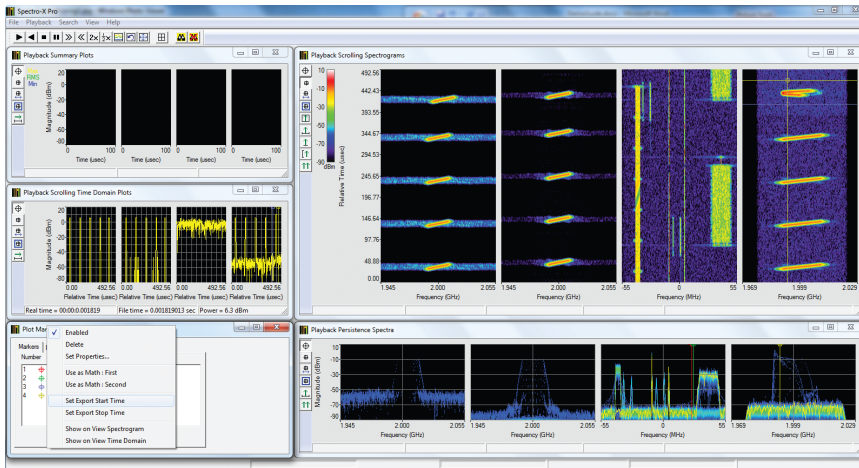
An integrated RF capture/playback solution from Keysight Technologies and X-COM Systems allows the long-term capture and storage of RF data for later playback and analysis. The solution comprises an Keysight N9030A PXA spectrum analyzer together with an X-COM IQC5000A dual-channel, long duration spectrum capture and playback system. Together, these provide a unique approach to the challenge of recording, analyzing and creating new waveforms in complex RF environments.

The Keysight N9030A PXA spectrum analyzer has 40 MHz of acquisition bandwidth with 75 dB of spurious free dynamic range to 26.5 GHz. The analyzer provides the bandwidth, dynamic range and frequency coverage to capture jamming signals in even the most cluttered and contested RF environments. The X-COM IQC5000A spectrum capture and playback system is a portable, dual-channel system that allows you to capture/record uninterrupted data streams and event markers for up to a day, depending upon the acquisition bandwidth selected.

- Effective radio frequency jamming for remote detonation counter-measures
- RF capture monitors complex RF operation environment
- Analysis of RF capture data allows optimum design decisions
- Uses Keysight PXA with X-COM IQC5000A
- Spectrum can be replayed with Keysight vector signal generator
- Achieve optimum communications jamming



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The IQC5000A also includes I & Q analog outputs so it can re-play all or any part of the recorded spectrum with full 16 bit I and Q precision using an Keysight vector signal generator. These capabilities make it possible to find critical signals of interest from within the captured data rapidly.

With an RF capture/playback solution from Keysight and X-COM you can record and analyze the components of a complex RF environment over a long period of time allowing you to achieve optimum communications jamming for maximum effect

System Components

Keysight Technologies

N9030A PXA signal analyzer

X-COM Systems

IQC5000A	Spectrum capture & playback system
IQC5000A-042	Adds second channel recording and playback
IQC5000A-BLD	Solid state, internal memory blade (2 TB max, 0.5 TB per blade)
IQC5000A-RIF	External data pack interface adapter
IQC5000A-R16	16 TB external disk storage unit (8 TB also available)

To learn how this solution can address your specific needs please contact Keysight's solutions partner, X-COM
www.keysight.com/find/xcom



Keysight & Solutions Partners
 Extending our solutions to meet your needs

Keysight and its Solutions Partners work together to help customers meet their unique challenges, in design, manufacturing, installation or support. To learn more about the program, our partners and solutions go to

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X-COM Systems designs RF signal recording, analysis and playback solutions for system design, signal simulation and test applications.

www.xcomsystems.com

For information on Keysight Technologies' products, applications and services, go to

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