

RF Communications Jamming

Agilent Technologies and X-COM Systems

Improve the effectiveness of your communications jamming solutions with RF capture and playback



IED (improvised explosive device) countermeasures such as radio frequency jamming of detonation signals are critical in all areas of military conflict in order to protect military and civilian personnel and equipment. RF capture and playback solutions allow you to optimize your communications jamming solutions without compromising the integrity of essential military communications, radio sensing and GPS navigation systems.

The development of effective communications jamming solutions requires the analysis of the complex RF environment that exists when a multiplicity of communications systems is in operation. By using RF capture you can analyze the RF environment in detail so that the correct decisions can 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 may require RF capture to be undertaken over an extended period of time.

An integrated RF capture solution from Agilent Technologies and X-COM Systems allows the long-term capture and storage of RF data for later playback and analysis. The solution comprises an Agilent N9030A PXA spectrum analyzer together with an X-COM IQC-2110 long duration RF signal storage system. Together, these provide a unique approach to the challenge of recording, analyzing and creating new waveforms in complex RF environments.

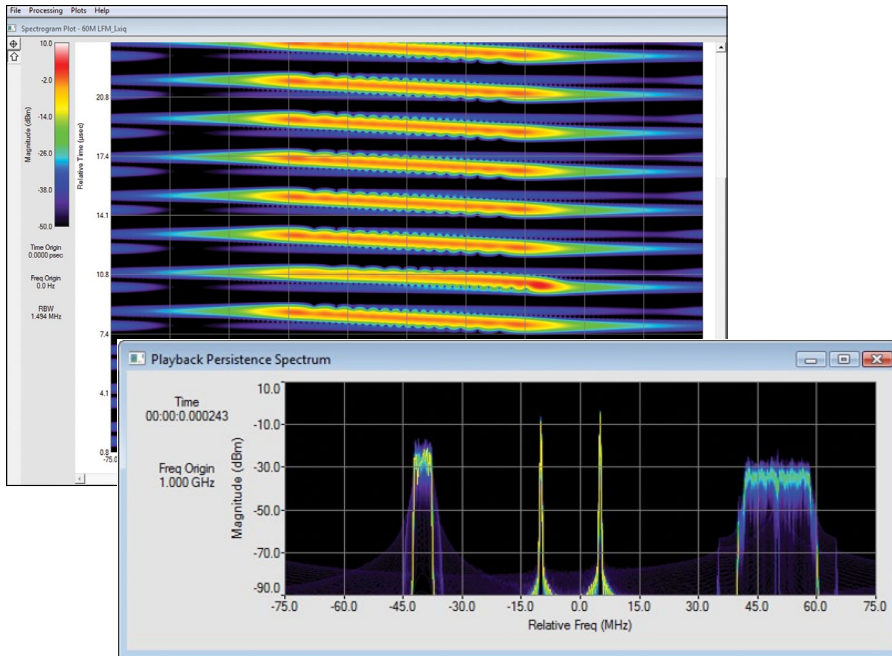
The Agilent N9030A PXA spectrum analyzer has 40 MHz of acquisition bandwidth with 75 dB of spurious free dynamic range to 26.5 GHz. The analyzer provides the bandwidth, dynamic range and frequency coverage required to capture jamming signals in even the most cluttered and contested RF environments. The X-COM IQC-2110 RF signal recorder allows you to capture and record uninterrupted data streams and event markers for up to 13 days, depending upon the acquisition bandwidth selected.

- ***IED countermeasures require effective radio frequency jamming***
- ***RF capture can monitor complex RF operation environment***
- ***Analysis of RF capture data allows optimum design decisions to be made***
- ***Agilent PXA spectrum analyzer with X-COM IQC-2110 signal recorder***
- ***Up to 13 days storage***
- ***Spectrum can be replayed via Agilent vector signal generator***
- ***Facilitates optimum communications jamming for IED countermeasures***



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The IQC-2110 coupled with the X-COM continuous playback generator (CPG-2110) can also re-play all or any part of the recorded spectrum with full 16 bit I and Q precision using an Agilent vector signal generator. These capabilities make it possible to find critical signals of interest from within the captured data rapidly.

With an RF capture solution from Agilent and X-COM you can record and analyze the components of a complex RF environment over a long period of time so you can develop an optimum jamming strategy for IED countermeasures.

System Components

Agilent Technologies

N9030A PXA signal analyzer

X-COM Systems

IQC-2110 RF signal recorder

CPG-2110 Continuous playback generator

To learn how this solution can address your specific needs please contact Agilent's solutions partner, X-COM

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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

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