WIDEBAND REGIONAL SPECTRUM MONITORING, ANALYSIS AND DECODING

CRFS RFeye System and Κρυπτο500+ Κρυπτο1000
CRFS RFeye System and COMINT Consulting
Krypto500 & Krypto1000 SIGINT software suites combine to provide a powerful, large area, 24/7 remote spectrum monitoring, geolocation, signal collection, survey and analysis system.

Together, Krypto500, Krypto1000 and the CRFS RFeye System are a powerful tool for monitoring and prosecuting the entire RF spectrum from 9 kHz to 18 GHz, using an array of intelligent, network-enabled autonomous signal collection and processing nodes.

CRFS RFeye nodes are rugged low SWaP, signal processing-optimized receiverprocessors that provide an unmatched combination of exceptional RF performance, small size and power, perfect for tactical or strategic SIGINT operations. They can be used for many SIGINT missions, including remote deployment in hostile environments, vehicles, aircraft and unmanned aerial systems. RFeye nodes have built-in GPS receivers and secure network interfaces.

The 100 MHz instantaneous RF bandwidth of the RFeye nodes, fully-supported in both Krypto500 and Krypto1000, allow for multichannel analysis, classification, decoding and fingerprinting. Industry-leading low noise figures, exceptional phase noise performance, 80 dBC SFDR (measured at maximum RTB), and sweep speeds up to 415 GHz per second combine with the maximum content extraction capabilities of Krypto 500 and Krypto1000 SIGINT software in a system that can exploit the entire RF spectrum.
Built-in SIGINT collection tools in the Krypto500 and Krypto1000 SIGINT software suites allow for manned or unmanned collection and manual or fully-automatic scanning, decoding and fingerprinting operations. The collection toolset can drive the RFeye system to record based on schedule or via any of HUNDREDS of triggers using ANY combination of modem decoder or voice detector. The RFeye node provides a 100 MHz wide I/Q stream, sufficient for analysis and collection of all of the channels of entire networks, particularly in the HF-UHF ranges.

Highly-accurate Voice Activity Detection (VAD) for both FM and SSB voice is a standard tool as are modules that allow targeted scanning and manual or automatic collection of known or unknown frequencies of interest. This can be used for either live monitoring or completely-automated collection.

Krypto500 and Krypto1000 have a market-leading lineup of thousands of real-time precision classifiers, hundreds of always-current decoders and precision radio fingerprinters that take the superb spectral awareness of the RFeye system and create exquisite spectral knowledge, allowing for rapid extraction of actionable intelligence.

CRFS RFeye Site software has an extensive array of spectrum monitoring and management tools designed to control and monitor a virtually unlimited number of nodes covering areas from the interior of individual buildings to entire nations. Automatic signal detection tools make it possible to find signals of interest in our modern complex and dynamic RF environment.
A few of the many ways we can help you produce more critical intelligence are briefly outlined below:

The superb multi-technique geolocation capabilities of the CRFS RFeye system fused with the unparalleled breadth of HF-VHF calling system decoders in Krypto500 / Krypto1000 joint together to create an area surveillance picture of unprecedented detail - know exactly who, where, when and what are communicating in real time!

Calling Systems – Understanding the topography of an HF network is critical and it all begins with understanding who called whom. Krypto500 has an unequalled selection of current, complete and relevant calling system decoders for Selective Calling (Selcal), 1st, 2nd and 3rd Generation ALE (Automatic Link Establishment), ALIS (Automatic Link Setup), ALM (Automatic Link Management), ACS (Automatic Communications System) and numerous other proprietary calling system solutions – some 80+ in total, some 70 more than our closest competitor!
Session Files – Built with the SIGINT / COMINT professional in mind, it is natural that we allow one-click saving and 2-click operation of complex missions. Simply save your workspace as a session file and all modules, settings and control settings can be re-opened and the mission immediately placed in operation by opening the appropriate session file.

Decoders – COMINT Consulting adds 12x more new decoders per year than all of its competitors combined. These are complete demodulator-decoder-parser chains for all known waveforms, allowing you to extract maximum COMINT. We have support for hundred of variants of DMR, dPMR (PMR446), TMR, LMR, PMR and other Telemetry modems, with more solutions added continuously.

Many Channels / Large Networks – Krypto500 and Krypto1000 have extensive real-time, multiple threading capacities which can be greatly expanded through the use of multiple desktops and multiple instances, allowing many hundreds of channels to be exploited. See our white paper on multi-channel processing. To run up to at least 10 instances of Krypto500 with 32 modules (of any type – analysis, classification, decoding, fingerprinting, etc) at once you need only one license of Krypto500 and a PC that meets our minimum requirements. Yes, as many as 320 channels of decoding could be running on one PC with one license of Krypto500. With Krypto1000 there are no limits to the number of channels you can process nor the widths you can display in full HD quality.

Please contact COMINT Consulting Customer Service if you would like to receive HD videos of the above in action.

Kindly refer to www.crfs.com and www.comintconsulting.com/resources for the latest technical information, data sheets and related application notes.
Krypto500 and Krypto1000 is controlled by the US International Traffic in Arms Regulations (ITAR) 22 CFR §120-130. It may not be exported or transferred to any other foreign person, foreign country or foreign entity without prior written approval from the U.S. Department of State and COMINT Consulting LLC.

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