

# FieldFox in RF SIGINT Operations

COMINT Consulting's Krypto1000 enhances FieldFox measurement capabilities in SIGINT

## Overview

Signal intelligence (SIGINT) is a broad field. In the RF world, it typically refers to detecting known and unknown signals over the air, determining where they come from via DF (direction-finding), then demodulating, decoding, and parsing the target signal to extract payload information: messages, files, cryptographic systems and other items of intelligence value.

As a SIGINT device, receiver needs wide frequency coverage, wideband signal monitoring, and its RF performance allows capture of target signals in gapless fashion.

## Included accessories

The following accessories are included with every FieldFox:

- AC/DC adapter
- Battery
- Soft carrying case
- LAN cable
- Quick reference guide





## Keysight FieldFox analyzers

Keysight FieldFox is designed for:

- Wide frequency coverage: 9 kHz up to 54 GHz
- Wide bandwidths: up to 120 MHz
- IQ capture and streaming (VITA 49)
- Multifunction: Spectrum Analyzer, Real Time Spectrum Analyzer, IQ analyzer with IQ streaming, record and playback, built-in GPS, Vector network analyzer and cable and antenna analyzer, power meter and frequency extender up to 110 GHz.
- Battery powered up to 4 hours of operation
- Rugged design meets MIL PRF 28800 F class 2, MIL STD 810G operation in explosive environment, and IP53.

To gain insight into RF signals containing intelligence, it is critical to have a comprehensive SIGINT/COMINT software suite which can provide Control, Classification, Analysis, Demodulation and Decoding of target signals. From FieldFox, Krypto1000 receives raw IQ to perform these tasks. Deeper analytic tools allow insight into target networks (traffic and nodal analysis). FieldFox is fully supported by Krypto1000 software from COMINT Consulting to provide these critical analysis capabilities.

# COMINT Consulting's Krypto1000 software

Krypto1000 is a unique collection of demodulators and decoders for wideband signals (greater than 48 kHz wide) typically found from VHF/UHF. It enables even inexperienced signals analysts to interpret information quickly and accurately about a signal of interest. Other integrated features important to COMINT/SIGINT are:



- Comprehensive collection of decoders for current target modes
- Unlimited parsers can run concurrently
- Offline and online analysis
- Multiple decoders may be run simultaneously
- Flexible recording capabilities

The tool kit of FieldFox and COMINT Krypto1000 is the ideal combination for field signal monitoring, troubleshooting and ad hoc SIGINT operations.



Figure 1. COMINT Krypto1000 PC software offers intuitive user interface for SIGINT operations

# Carry Precision with You

Every piece of gear in your field kit had to prove its worth. Measuring up and earning a spot is the driving idea behind Keysight's FieldFox analyzers. They're equipped to handle routine maintenance, in-depth troubleshooting, and anything in between. Better yet, FieldFox delivers precise microwave measurements—wherever you need to go. Add FieldFox to your kit and carry precision with you.

Related literature	Publication number
Keysight FieldFox Handheld Analyzers, Configuration Guide	5992-3701EN
Keysight FieldFox Handheld Analyzers, Data Sheet	5992-3702EN
Keysight FieldFox Handheld Analyzers, Technical Overview	5992-3703EN
COMINT Consulting Krypto1000 Software, Data Sheet	
COMINT Consulting Krypto1000 Software, Application Note	

Download application notes, watch videos, and learn more: [www.keysight.com/find/fieldfox](http://www.keysight.com/find/fieldfox)