



## RF Data Analysis Tools

WaveCAFE  
Spectro-X  
SigAnalyst Workstation

### Powerful Digital Signal Processing Toolkit Optimized for Large Datasets

The X-COM WaveCAFE and Spectro-X digital signal processing toolkit's powerful, flexible, and easy to use capabilities include:

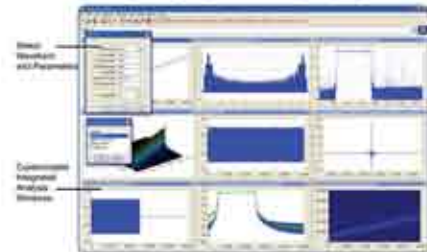
- n Search – Find every signal in captured spectrum
- n Analyze – Accurately measure characteristics
- n Visualize – Graphically display signals
- n Create – Easily create complex waveforms
- n Modify – Simulate effects of impairments and other effects

### WaveCAFE

WaveCAFE efficiently and easily imports, creates, analyzes, digitally filters, and exports waveforms

- n Precise custom waveforms can be created in minutes without writing a single line of code!
  - Frequency modulated
  - Linear, log, or quadratic
  - Stepped frequency
  - Barker code
- n Waveforms can be pre-distorted, digitally filtered, and modified to simulate a wide range of impairments
  - Impart Arbitrary White Gaussian Noise
  - Frequency masks
  - Digital filtering
  - IIR and FIR filters
  - Impulse responses
- n Signals can be simultaneously viewed in time and frequency domains
- n Import, modify, and view any existing ASCII, ArbExpress™, or binary files
- n Export waveforms to Arbitrary Waveform Generator or other RF creation system
- n Digitally change signal clock speeds to allow import and export to different equipment

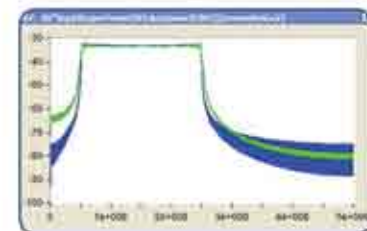
#### Multiple graphical display options



Waveforms are easily created by selecting waveform type and entering parameters



#### Powerful pulse Analysis tools



### APPLICATIONS

- n RF data analysis and development tool for:
  - Radar
  - Satellite
  - Surveillance
  - Radio Comms
  - Electronic Warfare
  - Sonar
  - Next Gen Wireless
  - Video
  - Software-Defined Radios
- n Re-creation of complex RF environments
- n System simulations and validation
- n Wideband RF signal creation and analysis
- n Training and signal library development

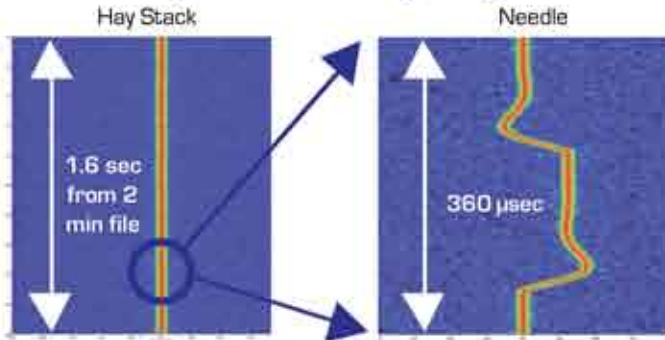
## Signal Analysis

Spectro X can easily execute the most difficult signal processing tasks

- n Quickly search, analyze, and filter large datasets
- n View signals using high resolution spectrogram
- n Simultaneously display in time and frequency domains
- n Isolate and digitally eliminate known unwanted signals to aid locating nearby signals of interest
- n Identify and classify waveforms
- n Detect and very accurately time tag events
- n Identify signals based on known modulation formats
- n Signals in received spectrum can be automatically correlated with catalogued files (fingerprinting)

## Signal Search

Spectro-X rapidly searches large data sets to easily locate and analyze signals



## Turn-key Analysis System

SigAnalyst workstation provides powerful turn-key digital signal processing system

- n Quad Core processor
- n Windows 7 Professional OS
- n Pre-installed, fully-optimized WaveCAFE and Spectro-X software
- n 2 TB RAID 5 hard disk (expandable)
- n 12 GB of DDR3 RAM
- n Nvidia CUDA™-compatible video card
- n Can download IQC 2 TB DataPacks at up to 500 MB/s onto RAID5 workstation storage for analysis and archive
- n 19" rackmount or tower configuration

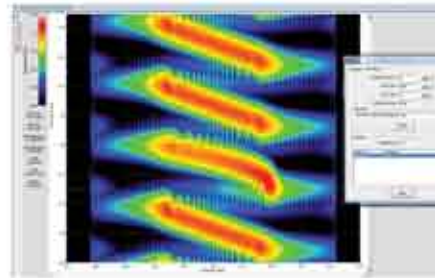
## Ordering Information

### Advanced Data Analysis Software & Systems

WC-BASE-APP	WaveCAFE Base Application
WC-STD-SPECX	WaveCAFE Standard Spectro-X Module
WC-ADV-SPECX	WaveCAFE Advanced Spectro-X Module
WC-SUPRT-STD	WaveCAFE Standard Support Package

## Signal Fingerprinting

Spectro-X has powerful signal analysis tools including "fingerprint" correlation



## SigAnalyst Workstation

The X-COM IQC2110, SigAnalyst Workstation, WaveCAFE and Spectro X provide a powerful turn-key digital signal processing capability

