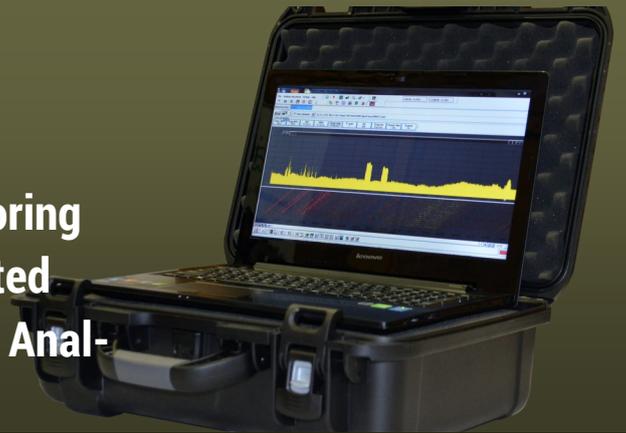


DIGITAL FAR

For Advanced TSCM RF Spectrum Monitoring and SIGINT Applications with Sophisticated Wireless Digital Signal Classification Anal-



The **DIGITAL FAR (Fast Acquisition Receiver) System** combines a compact, powerful and full-featured, RF receiver/spectrum analyzer integrated with the most innovative and highly advanced TSCM and SIGINT specific software application.

The **DIGITAL FAR (Fast Acquisition Receiver) System** provides the most cost efficient wireless signals and spectrum analysis platform to acquire, process and analyze any RF signal and was designed as the most advance solution for all stand-alone, remote, temporary or permanent in-facility or area wide 24/7 spectrum monitoring applications.

ADVANCED SOFTWARE

- Powerful industry leading TSCM and SIGINT RF spectrum monitoring and analysis application.
- Advanced RF mapping.
- Multiple trace comparison.
- Multiple receiver handoff.
- 2D & Next Generation Dynamic 3D waterfall displays
- DTEST - Advanced digital signal analysis and identification of GSM, DECT, Bluetooth (including non-standard Bluetooth frequencies) Tetra, APCO 25, DMR, DRM, analogue video and Wi-Fi.
- SCARS - Digital Signal Classification Analysis and Recognition System
- Unlimited recording, storage, playback (forward and reverse) with full post processing. Record and store entire sweeps from beginning to end at better than 9kHz resolution.
- Constellation display using Real-time IQ and vector analysis.
- Audio / video demodulation with automatic audio recording.
- Comprehensive and highly sophisticated RF detection and analysis functionality.
- Advanced triggering, alarm and capture capability.
- Multiple marker / cursor measurements.
- GPS and optional digital mapping, geographic information and advanced metrological measurement support.
- High performance GUI.
- 24x7 spectrum monitoring.

DETECT—ANALYZE – RESPOND

“The only solution which completes the cycle”

SIGNAL ANALYZER

- Real-time search and capture of signals of interest.
- Streaming Digital I/Q : 25kHz to 27MHz selectable IF bandwidth
- Up to 24 GHz/s scan rate.
- 9kHz to 6 GHz (Digital FAR)
- Resolution (RBW) 10 Hz to 10mHz
- 140MB/Sec Data Transfer Via latest USB 3.0.
- 14 Bit ADC
- Industry leading combination of functionality ,

DELIVERY SET

- Hard cased enclosure with internally mounted, convenient power and antenna connections.
- 2 x Antenna 20MHz to 2500MHz , 698MHz to 5850MHz.
- Fully pre-configured 15" laptop computer, i7 processor, 8G RAM and 1 TB hard drive with preinstalled RadiInspector software.
- Receiver fitted in hard case enclosure with pre-configured connections and internal cool-

“Setting a New Standard in RF Detection, Analysis and Classification Technology”

Full Spectrum Analysis Application included with purchase.

RadiInspector RT

Full time search and analysis of frequency ranges including collection, storage and displaying of radio frequency spectrum data. Provides complete advanced analysis features including 2D and next generation 3D waterfall, markers, cursors, thresholds, trace comparison, audio demodulation, signal lists, databases with export to Microsoft Word and much more!

The Base RadiInspector RT application is bundled to include to include:

RT LAN

Remote control of instruments via the network (connection to i_MasterDevice program running on a remote computer).

RT Sound Scanner

Operating an additional communication scan receiver for demodulating audio without stopping the main instrument's scanning function.

RadiInspector DTEST

Highly advanced and sophisticated digital signal (Vector) analysis, demodulation of open air protocols and identification of digital communication standards including GSM, DECT, Bluetooth, TETRA, APCO25, DMR Mototrbo, analogue video (PAL, SECAM, NTSC) along with the ability to detect Bluetooth devices that have been altered to transmit using non standard frequencies. Includes advanced digital Signal Classification Analysis and Recognition System (SCARS).

RadiInspector RP

Complete post processing of stored measurement results from RF signal spectrum analysis. Unlimited recording of entire sweeps from beginning to end including 2D or Dynamic 3D waterfall spectrograms with time and date stamps and full playback (forward and reverse) at operator selected speeds. Performs multiple trace comparisons, harmonic identification and intermodulation analysis. Data is recorded to an integrity protected data base with data integrity verification performed on saved data files prior to each use.

Option 1

Geographic Information Support

Geographic information system support. When post processing results, all measurement parameters graphic, tabular, symbolic, geographic are related within the database and presented on a map. Long-term data storage is possible by selecting and saving frequency, time, and X and Y coordinates. For a more in-depth analysis altitude, speed and direction of mobile data collection parameters can be saved to the database.

(Note :MapInfo Mapping software must be purchased separately.)

Option 2

Advanced Metrological Measurement Support

Radio frequency signal expert analysis subsystem that performs parameter measurement and saves results into a database. This includes frequency bandwidth measurements by the $\beta/2$ method (Recommendation ITU-R SM.328-10), frequency bandwidth by $-N$ level dB, radio frequency field strength (using variable methods of statistical data processing for single or multiple data collection points), frequency measurement of a signal's central frequency by a frequency counter and central frequency estimation for complex signals by analytical methods based on signal spectrum density. Using different measurements techniques, signal detector selection, measurement time and averaging allows high quality measurements of complex signals to be performed and correctly estimates parameters of transmitters operating in various modes. Results are displayed using signal spectrum plots in easy to interpret graphical user interfaces that enhance measurement ease. While results of primary spectrum measurements have accuracy which depends on the type of instrument used for collection, RadiInspector automatically calculates accuracy at each frequency measurement point ensuring validity of individual signal measurements.

Provides results in amplitude-frequency-time-geographic coordinate scales, analyzes electromagnetic fields at the point of measurement or along a mobile geographic trace, presentation of analysis in 2- or 3-dimensional view, Displaying results on a digital map, calculation of radio coverage areas by field strength measurements, frequency channels' measurement; channel occupancy and estimation of spectrum usage, post-search measurement of signal parameters, searching for interference sources, displaying signal amplitude.

Option 3 (coming Soon)

Wi-Fi : Stand Alone Hardware / Software System with Free Running, Distributed Wi-Fi Capture and Analysis Receiver Modules

Packet analysis of Wi-Fi networks. Displays SSID and MAC addresses of source, destination and access point devices. Compares detected MAC addresses with a list of legitimate addresses. Estimation of traffic flow per connection and transmitter location. Records and analyzes access point coverage areas, maps the electromagnetic field strength distribution in color for the entire network; separately for each channel; each access point and each channel used.