

ACUSTEK

Countermeasures - TSCM

PRODUCT CATALOGUE



COUNTERMEASURES



SURVEILLANCE



THROUGH WALL

WHAT WE DO



Covert Audio Video Surveillance

Full range of miniature, low powered professional audio and video covert solutions. Including WiFi, Cellular and Stand-alone devices.



Through Wall Solutions

Range of products for Police and Military, aimed to gain maximum tactical intelligence and achieve rapid and effective intervention in dangerous situation such as Anti-terror, hostages and stronghold monitoring.



TSCM Countermeasures

A range of technical countermeasure devices for signal intelligence and hidden electronics detection.

**Industry Leading TSCM
Spectrum Monitoring and
Signal Analysis Solution**

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Advanced TSCM/SIGINT,
Wireless Signals Classification
and Recognition System

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Professional Non-Linear
Junction Detector

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Setting a new
standard in
**RF Detection,
Analysis and
Classification
Technology.**

DIGITAL FAR

Advanced TSCM/SIGINT, RF Signals Classification and Recognition System

The DIGITAL FAR provides a portable and feature filled quick deployment system. The combined military spec, processing hardware and state of the art software create an innovative & advanced TSCM solution.

Incorporating digital signal wave form, data packet analysis and classification. It analyzes the full real time I/Q Data stream. The DIGITAL FAR (Fast Acquisition Receiver) delivers a unique and efficient RF Signal Analysis platform and has been designed to be the most advanced solution for stand-alone, remote, temporary/permanent, infacility or area wide 24/7 spectrum monitoring.



Setting a New Standard in **RF Detection, Analysis and Classification Technology.**

DIGITAL FAR

Advanced TSCM/SIGINT, RF Signals Classification and Recognition System

HARDWARE

TECHNICAL SPECIFICATIONS	
Bandwidth	250kHz to 27MHz of selectable IF bandwidth
Disk Capacity	1 TB SSD Total Disk Capacity
Screen Size	15"
Recording Capability	Yes of Processed IQ Data
Bluetooth Analysis Adapter	Identification of individual Bluetooth signals
Operation Time	Approximately 2 hours fully autonomous of full 9kHz to 6GHz range rate
Scan Rate	Up to 26 GHz/s
Resolution	(RBW) 10Hz to 10MHz
Data Transfer	140MB/sec from analyzer to processor
Broadband	Near-field option to 25GHz. Separate hand-held unit
Ethernet Port	2x Ethernet ports allowing full remote access capabilities
Antenna Support	(9kHz - 1.6GHz) (680Mhz - 6Ghz)
Dimensions	L: 503 x W: 406 x H: 193
Weight	12kg
CE Conformity	2014/30/EU EMC, 2014/35/EU Low voltage, RoHS
Operating Temperature	0°C to +60°C
RF Compliance	EC Reg 5(6/a of SI-240 of 2001), SI-197 of 2005, SI-292 of 2005

The most multifunction RF analysis and signal type identification system

DIGITAL FAR

Advanced TSCM/SIGINT,
RF Signals Classification
and Recognition System

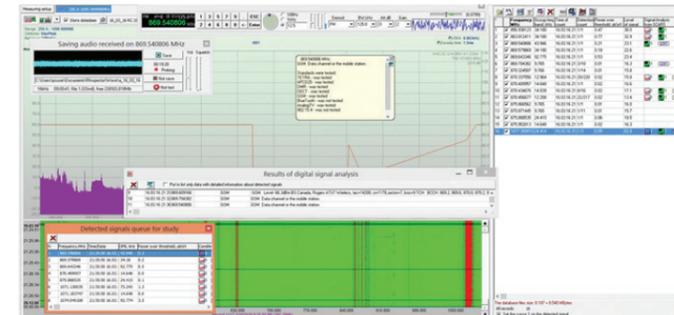
SOFTWARE

- Powerful Industry leading TSCM/SIGINT spectrum monitoring and RF signal analysis application
- Full processed IQ Data Recording and Post Processing/Analysis
- SCARS: Signal Classification Analysis Recognition System
- DTest: Digital Signal processing, analysis and classification of DECT, Bluetooth, WiFi, GSM, UMTS 3G, Tetra, APCO25, DMR, IEEE, ZigBee, ISA100.11a, WirelessHART MiWi
- 2D & latest Generation 3D dynamic, compressible and scalable waterfall displays
- AM, FM and DMR (un-encrypted) audio demodulation with automatic recording and complete audio analysis tool kit
- NTSC, PAL SECAM analog onscreen video demodulation
- Advanced RF mapping using GPS unit (Integrated with Open Street Maps)
- Multiple Spectrum Analysis windows
- Multiple trace comparison. Multiple receiver handoff
- Complete Display of Signal parameter measurement
- Integrity protected database with unlimited recording and storage with playback and complete post analysis capability
- Record and store entire sweeps including all data, with time and date stamps
- Constellation display using Real-time IQ and vector analysis
- Comprehensive and highly sophisticated RF detection and analysis functionality
- Advance triggering, alarm and capture capability using operator specified threshold.
- Multiple marker/cursor measurements
- Multiple integrated authorised frequency, spectrum intelligence & signal analysis databases
- Display screens exported directly to MS Word and Excel formats, text and graphic files.
- 24x7 spectrum monitoring with fully automated monitoring and recording of Signal breaking the threshold.

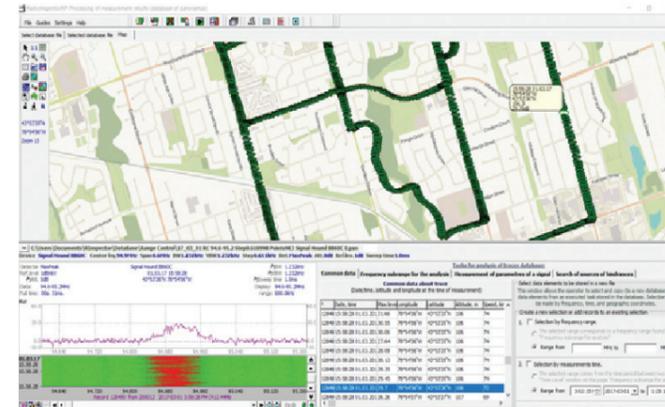
DIGITAL FAR

Advanced TSCM/SIGINT,
RF Signals Classification
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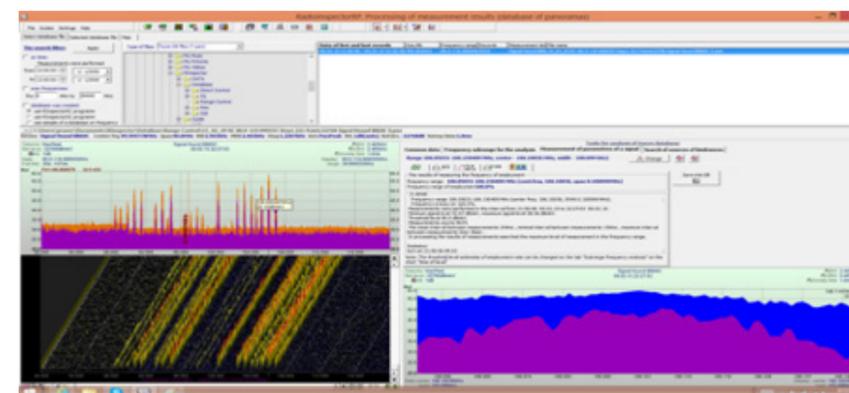
DIGITAL SIGNAL DETECTION AUTOMATION



GEOGRAPHICAL ANALYSIS



COMPLETE POST PROCESSING & ANALYSIS



WIFI INSPECTOR

In-depth WiFi Analysis as part of Digital FAR or as a stand alone system

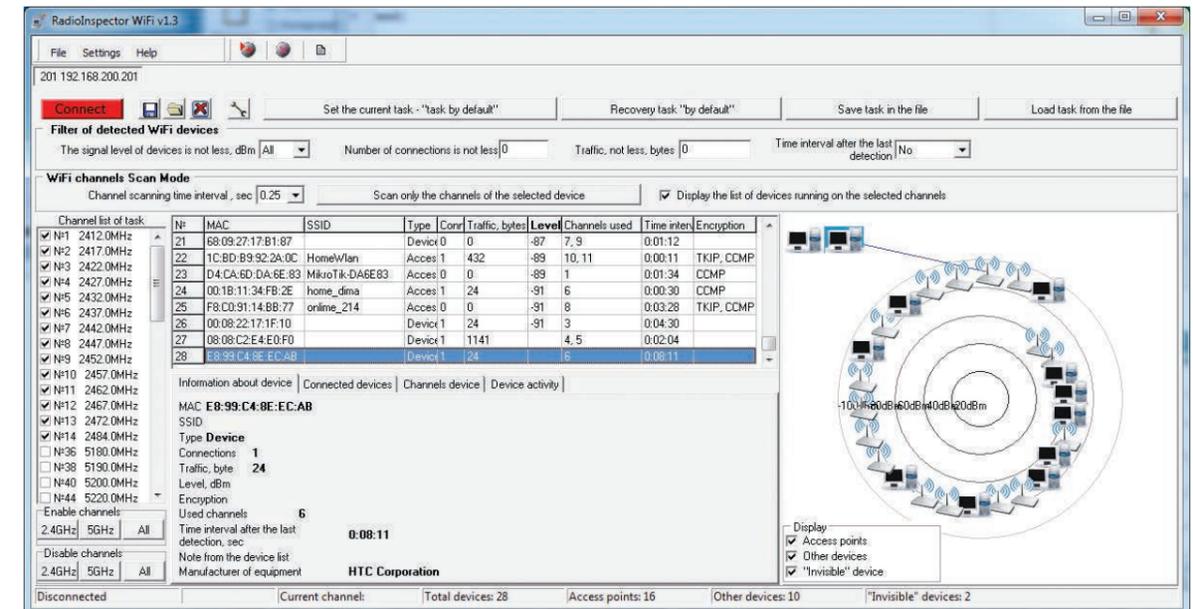
Detection of all Wi-Fi devices such as access points and clients along with clients that are beaconing and not connected to a network.

- Detection of operating access points in Wi-Fi networks.
- Detection of additional devices (other than access points: PCs, laptops, smart phones etc.) operating in Wi-Fi networks.
- Detection of links (data transmission) between devices in Wi-Fi networks and data traffic calculation.
- Displaying information for detected devices in Wi-Fi networks and devices connected to them in text format.
- Displaying detected devices and connection links between them in graphic format.
- Various filters can be applied for displaying devices with required parameters.
- "Authorized" devices list.
- Operation on archive: displaying device activity; displaying device operation for a selected time interval.
- Use of single or multiple independent "free running" receiver modules over a wide area.
- Software can run without connection to a receiver module when analyzing archived data.

Setting a New Standard in **RF Detection, Analysis** and **Classification Technology.**

WIFI INSPECTOR

In-depth WiFi Analysis as part of Digital FAR or as a stand alone system



WiFi INSPECTOR TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
Frequency bands	2.4GHz, 5GHz
Analysed standards	802.11 a, b, g, n (ac mac address identification)
Connection	Ethernet 10/100 Mb/s
Autonomous Operation Capability	Continuous 24/7
Minimum Data Storage Time	2 months
Antenna	Integrated
Power Supply	5V, power supply from USB 2.0 (AC adapter included)
Dimensions (LxWxH)	11.5 x 8 x 3.5cm

RECON

Professional Compact Non-Linear Junction Detector

RECON Handheld Non Linear Junction Detector (NLJD) is designed for the detection of both active and passive electronic devices.

Detection of active and passive types of eavesdropping equipment such as receiver-transmitter and other audio electronic devices, including mobile phone SIM cards, voice recorders, radio bugs and any listening device.

Smallest, lightest and most ergonomic NLJD on the market.



RECON

Professional Compact Non-Linear Junction Detector



TECHNICAL SPECIFICATIONS

Type of probing signal	Pulsed & Continuous
Emitting Power	Variable Power to Max 1 W
Effective Radiated Power	ERP 4 W (Maximum)
Receiver Sensitivity	-150 db/W
Frequency	2.4 GHz
Selection of channel	Automatic
Dynamic Range	80 dB
Product Weight	Not exceeding 350g
Dimensions	220mm x 90mm x 90(30)mm
Power	Li-on battery
Continuous operation	Approximately 4.5 hours
Battery level monitoring	Yes
Charging time	2 hours with supplied charger
Operation temperature range	From -10°C - 40°C

Unique and innovative compact design. Highly effective performance at a significantly reduced cost

FEATURES

- INCREASED POWER AND ACCURACY**
Due to the sensitivity of the antenna it allows firm detection of small hidden electronics at a depth of 15-20cm, covered by loose soil e.g. SIM cards, cell phones, small memory sticks and other clandestine electronics underneath mattresses, floors, inside books or hidden in walls.
- FASTER RESPONSE TIMES**
The RECON operates in the 2.4 GHz band and incorporates a highly advanced second harmonic receiver with intuitive and highly responsive display. With only a single patch antenna, the precision and rapidity of target location at close range increases over NLJD. The RECON's second harmonic design offers greater operational simplicity, reduced size, and easily interpreted results requiring minimal training with highly effective performance at a significantly reduced cost.
- UNIQUE COMPACT DESIGN**
Unique and innovative compact design, its small size and weight (350g) with quality ergonomic hand held portable nature means it can be immediately deployed.
- INSPECTION APPARATUS**
The unit features an innovative antenna design, a receiver incorporating 'front-end' precision aligned filters that provide for maximum sensitivity and a new Lithium Ion battery that yields longer operational times. Because of its small size and irradiation compliance, the RECON Compact NLJD can be used as a personal inspection device.

ACU-LUX

Professional Non-Linear Junction Detector

The ACU-LUX detector is designed for sophisticated professional sweep operations, when accuracy along with the speed of detection are essential.

The ACU-LUX operates in default pulse mode with a power emitter of up-to 4W per pulse, this allows for higher sensitivity of the receivers. Fast sweeping speed is achieved by optimising the parameters of the signal output in conjunction with a superior antenna system.

Ultra fast sweeping over large areas and **exceeds** all currently available NLJD's.



ACU-LUX

Professional Non-Linear Junction Detector



Allows distinguishing active eavesdropping devices

TECHNICAL SPECIFICATIONS	
Type of probing signal	Pulsed & Continuous
Emitting Power per pulse	4 W (max), 1 W (min)
Effective Radiated Power	ERP 16 W (max)
Average Radiated Power	300 mW (Pulse Mode)
Frequency	900.2 MHz ± 1 MHz
Frequency step	200 KHz totally 21 channels
Sensitivity of each receiver	-120 dBm as S/N 3dB (-150 bD/W)
Dynamic Range	At least 30dB
Manual receiver gain	4 stages of (10dB) each
20k Mode - transmitter emits signals modulated	Demodulation width signal spectrum is 500-2000 Hz
Detection Speed	Up to 1 m/s (average 1m in 3 sec)
Operation Range (Depend on the type of element)	Low frequency modules: 1-10cm High frequency modules: 2-2mtrs
Antennas	3 combined in a single unit
Polarisation	Circular with ellip. ratio up to 1.5
Beam width at - 3dB level	90 degrees
Tx/Rx antennas	Coaxial pattern
Length	49cm flat without battery 59cm flat with battery 110cm fully extended inc antenna
Width of antenna	20cm sq
Width of pole	4cm
Weight unit w/o battery	1.1kg
Weight unit w/battery	1.3kg

FEATURES

- TECHNOLOGY**
 The generation of microwave signals in the Non Linear Junction Detector when in contact with transistors, diodes or chips re-emits certain higher frequencies, the re-emitted signal is received on the antenna and processed showing the 2nd and 3rd harmonics on LED indicators and earphones.
- 20K MODE**
 Allows distinguishing active eavesdropping and other devices such as transmitters, radio, microphone amplifiers from corroded metal contacts, making it a powerful tool in the identification of the type of non-linear device.
- RESOLUTION**
 The resolution of each LED indicator is 3dB and the received signal can also be heard with the accompanying earphones.
- TRANSMITTER FREQUENCY TUNING**
 Allows selecting the best frequencies (not interfering with GSM range) allowing the unit to work in a concentrated environment.
- ADJUSTABLE**
 The ACU-LUX Non Linear Junction Detector's emitting power can be adjusted as well as the receivers sensitivity.
- UNIQUE DESIGN**
 Ergonomic one piece construction and light (1.3kg including battery) with extendable/retractable pole inside the handle, as well the ACU-LUX's innovative screw-in battery extends the handle further.
- USAGE PARAMETERS**
 Operation speed, product safety, ergonomics, battery and continuous usage time (not less than 5 hours) exceeds all currently available Non-Linear Junction Detectors.



SURVEILLANCE



TSCM COUNTERMEASURES



THROUGH WALL SOLUTIONS

ABOUT US

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Located in Dublin, Ireland, ACUSTEK is an established manufacturer of unique professional products for Surveillance, Counter-Surveillance TSCM and tactical equipment.

Our mission is to provide the best and unique solutions to Law Enforcement, Intelligence Agencies, Rapid Intervention Teams, Military, Prison Services, Police and Government Agencies.

DETECT

ANALYSE

REACT



ACUSTEK

ACUSTEK, Unit 13, North Street Business Park,
Seatown West, Swords, Co. Dublin, Ireland

 **+353 (1) 55 84 076**  **sales@acustek.com**  **www.acustek.com**