



**The industry leader  
in TSCM equipment.**



## Technical Security Specialists

Electronic eavesdropping and illicit surveillance pose significant threats to businesses, law enforcement, government organizations, and private individuals. Wrongful exposure of sensitive information including merger or acquisition planning, marketing strategies, financial projections, or executive employee behavior can severely harm an organization. The mere perception of compromised information can lead to stock decline, negative publicity, damaged business relationships, and loss of customer confidence. **REI offers high-quality, world-renowned equipment and practical, hands-on instruction to guard against critical information loss.**



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@REI\_TSCM

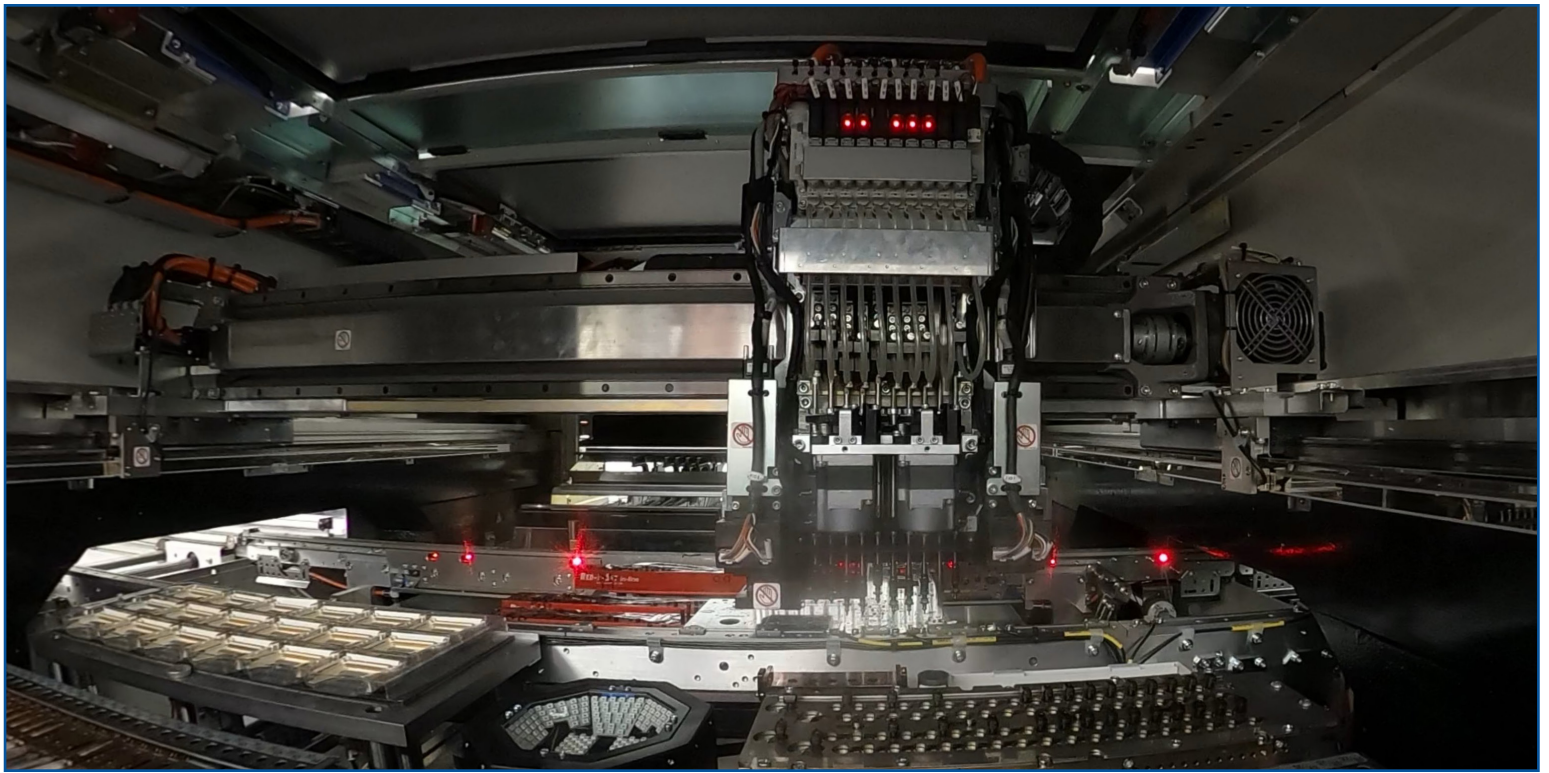


REI Equipment



Research Electronics International





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## REI Manufacturing Process

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REI has been manufacturing its complete product line for more than 40 years at its middle TN, U.S.A. headquarters. Each member of the REI team works toward the common goals of building the best products possible and providing the best customer care. Every product is inspected before it ships, and with this level of manufacturing control, customers never have to worry about the quality of the products. REI's lean manufacturing system is uniquely designed to bring engineering and production together to produce a wide array of complex products, start to finish. Each time a customer places an order with REI, they can be confident that it meets the highest standards.

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## Meet the Sales Team

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REI serves customers around the world and from many different cultures. The Sales staff and a dedicated network of international resellers understand the unique challenges faced by those with technical security needs. REI works to protect the valued relationships and reputation it has with its customers. We look forward to working with you.



**Michelle Gaw**



**Michael Scantland**



**Pamela Petty**



**Pamela McIntyre**





# OSCOR<sup>®</sup>

## Spectrum Analyzer

Complete spectrum analyzer with built-in, auto-switching antennas and on-board analysis software.

The OSCOR is a portable spectrum analyzer with a rapid sweep speed and operational features suited for detecting unknown, illegal, disruptive, and anomalous rogue transmissions across a wide frequency range. The built-in antennas and analysis software make it easy to deploy, capture, and compare spectrum data from multiple locations.

### SIGNAL ANALYSIS & LOCATION

Reference and target traces are quickly captured, stored, and compared for a complete RF mapping solution. Signals are easily located based on RSSI level change. Correlation and Ranging functions locate and identify analog threats. Users can easily compare real time traces and peak traces using Masking to log newly detected signals over time.





## APPLICATIONS

- ✓ Investigating misuse of the RF spectrum
- ✓ Security surveys for unauthorized or illicit transmissions
- ✓ Detecting eavesdropping transmissions
- ✓ Site surveys for communications systems (cell towers, microwave links...)
- ✓ RF emissions analysis

## ADVANTAGES

- ✓ Sweeps from 10 kHz to 24 GHz in less than a second at 12.2 kHz resolution
- ✓ Quickly detects localized RF energy transmissions of all types of modulation
- ✓ Patented trace analysis identifies RF energy unique to specific environments
- ✓ Portable design minimizes setup time when moving from site to site



**10 kHz - 24 GHz  
Frequency Range**



**4 Hour  
Battery Life**



**9.6 lbs (4.4 kg)  
Unit Weight**



**Compact Flash  
& USB-A Inputs**

## OSCOR MODEL OPTIONS

There are two OSCOR Spectrum Analyzer models available:

- OSCOR Blue - 24 GHz
- OSCOR Green - 24 GHz

## OSCOR BLUE VS. OSCOR GREEN

The technical differences between the OSCOR Blue and Green are limited to the Trace Data Recorder/Spectrogram functions. The OSCOR Blue Trace Data Recorder saves intermediate traces at 12.2 kHz resolution every 5 seconds minimum, where the OSCOR Green Spectrogram saves intermediate traces at 24.4 kHz resolution every 10 seconds minimum.

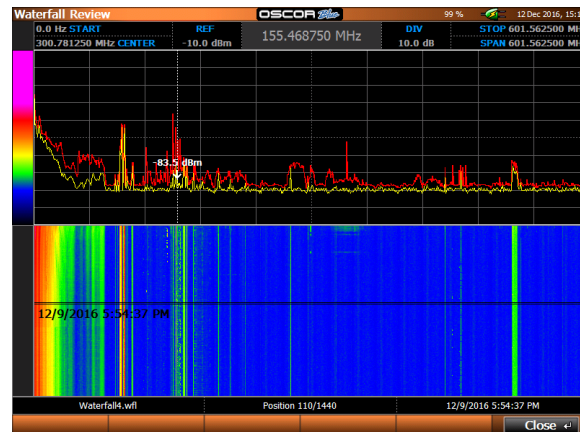


# OSCOR SPECTRUM ANALYZER

## TRACE DATA RECORDER

The Trace Data Recorder (Spectrogram) builds an intermediate peak trace over a user defined frequency span and time interval and repeatedly stores these intermediate peak traces for waterfall analysis. The intermediate peak trace is “zeroed” between each time interval.

This function allows users to review signal activity over extended periods of time - as long as the storage and power limits will allow. Users can scroll up and down through the waterfall to examine the times at which transmissions occurred and for how long. Users can scroll left and right on the upper spectral display to view other signals collected during the same period.



## PERSISTENCE

Persistence enhances the ability to recognize signals that may be hiding or masked by existing ambient environment signals. The Persistence display provides a trace graphic with a decaying color brightness based on the persistence (transmit duty cycle) of respective signals.

Signals with higher transmit cycles result in brighter colors compared to signals with lower transmission rates having darker colors. Therefore, signals occupying the same frequency bands are visibly identified because of color variations associated with transmit duty cycles. This function helps users locate signals that may not be detected by peak trace or waterfall analysis.



## AUDIO AND VIDEO DEMODULATION

### Audio demodulators:

FM wideband  
FM narrowband  
AM wideband

AM narrowband  
Sub-carrier  
Single Sideband

### Demodulation bandwidths:

1 Audio: 800 kHz, 200 kHz, 12.5 kHz,  
6.25 kHz, 2 kHz  
2 Video: 12.75 MHz, 6.375 MHz

### Video formats:

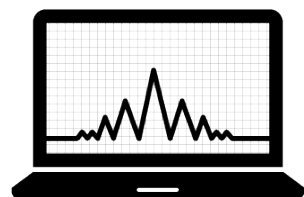
NTSC, PAL, SECAM  
Wideband AM and FM demodulation  
Video demodulation displayed on screen



The OSCOR continues to sweep the spectrum while demodulating.

## MULTI-PURPOSE PROBE

The multi-purpose probe plugs into the auxiliary port on the back panel of the OSCOR for capturing carrier current signals, in-line measurements of cable TV systems, low frequency spectrum activity, infrared signals, and visible light transmissions. This included accessory provides a plethora of capability in a single tool.



## POST-INVESTIGATION RESOURCES

The OSCOR comes with a data viewer PC application that allows user to open, view, analyze, export, print, and save OSCOR files including trace, signal, audio, and screen capture files.



Built-in 10 dB pre-amp improves receiver sensitivity

Auto-switching antenna panel provides seamless real-time spectrum visibility

On-board analysis software removes the need for a laptop

Back panel includes antenna panel inputs and auxiliary antenna inputs

8.4 in (21.3 cm) color display touch screen

Ethernet port allows remote operation using VNC



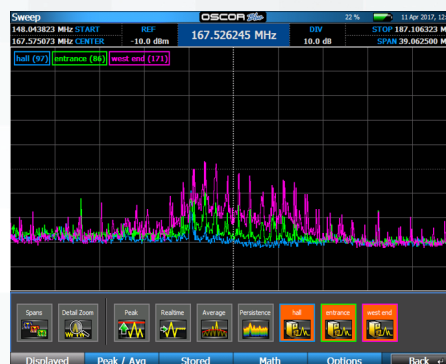
## HOW IS AN REI SPECTRUM ANALYZER USED FOR TSCM?

The OSCOR's integrated antenna panel collects RF signal activity and displays amplitude (signal strength) as it varies by frequency. Traditional spectrum analyzers analyze specific, known signals; with TSCM, spectrum analyzers sweep the RF spectrum for unknown, and often disguised, signals across a wide frequency span.

The OSCOR excels in applications where the frequency of the signal of interest is not known. This is a different perspective than spectrum analyzers designed for bench top test analysis of a known frequency, or general purpose software defined radios where the user is required to carry additional hardware. In TSCM, portability is extremely important. By simply walking around, you can increase the sensitivity of your search by a large factor and locate the source of the transmission:



*In this example, traces are captured in three different locations. Those signals are captured on the OSCOR. Trace 3 shows the strongest RSSI and the approximate location of the transmitter.*





# MESA<sup>®</sup> 2.0

MOBILITY ENHANCED SPECTRUM ANALYZER

## A portable spectrum analyzer delivering precision & performance.

REI's new handheld Spectrum Analyzer offers portable RF sweep capability and advanced spectrum analysis tools for detecting unknown signals.

### Spectrum Analyzer Multi-Tool

Radio Frequency (RF) applications demand agile, portable, handheld spectrum analyzers to measure the power and frequency of known and unknown transmissions, often at different locations. REI has developed a portable spectrum analyzer that delivers precision, high performance, and versatility for assessing RF energy in a variety of environments. The new MESA<sup>®</sup> 2.0 - Mobility Enhanced Spectrum Analyzer is a handheld RF receiver that detects known, unknown, illegal, disruptive, or interfering transmissions throughout wide frequency spans up to 6 GHz (12 GHz with Down Converter antenna).





## APPLICATIONS

- ✓ Detecting illicit eavesdropping signals
- ✓ Detect RF WiFi, Bluetooth®, cell phones, illicit transmissions
- ✓ Sweep secure areas to keep information private
- ✓ Identify the location of suspicious RF signals
- ✓ RF emissions analysis

## ADVANTAGES

- ✓ Interference detection & troubleshooting
- ✓ Communications Site Surveys
- ✓ I&Q Recording
- ✓ Portable design minimizes setup time when moving from site to site
- ✓ RF research and development



**Up To 12 GHz  
Frequency Range**



**3 Hour  
Battery Life**



**2 lbs (0.9 kg)  
Unit Weight**



**Compact Flash  
& USB-A Inputs**

### MESA 2.0 MODEL OPTIONS

MESA model options include Basic and Deluxe:

Antennas/Accessories	Basic	DLX
Hybrid Whip Antenna	▪	▪
Fixed Hybrid Antenna	▪	▪
Down Converter Antenna		▪
Flag Directional Antenna		▪
VLF Loop Antenna	▪	▪
Locator Probe		▪
MCP (Multi-Carrier Probe)	▪	▪
Visible Light/ Infrared		▪
Ultrasonic Probe		▪
Audio Transformer		▪
Acoustic Leakage Detector		▪
GPS Dongle		▪
External battery charger		▪
2 Li-ion rechargeable batteries	▪	▪



# MESA SPECTRUM ANALYZER

## SPECTRUM ANALYSIS

MESA® 2.0 displays a full range of frequency data including span, start and stop frequencies, dB, and RBW between 10 kHz to 6GHz\*. Types of signal graphs include live trace, peak trace, Cached Peak™, average trace, alert threshold, RSSI, O-scope and more. RF display features like Persistence and Live Raster Waterfall provide enhanced display of signal events over time. A dynamic Resolution Bandwidth auto adjusts from 312.5 kHz down to .038 kHz dependent on the frequency span - the narrower the span the greater the resolution.

## SMARTBARS™

SmartBars™ mode uses bargraphs to detect and locate RF energy by displaying new signals, or increased RF energy, compared to a reference trace from outside the target sweep area. New energy is indicated by an increase in certain bars. Tapping on the bars reveals spectral views.

## MOBILE BANDS

The Mobile Bands mode allows the user to quickly and easily monitor RF energy levels for multiple specific RF Bands (i.e. WiFi, GSM, etc.) on one screen. Each Band is customizable to user defined spans. This mode is excellent for quickly searching for RF energy in specific spans.

## WIFI/BLEETOOTH

WiFi and Bluetooth modes display nearby WiFi access points and Bluetooth pairings, relative signal strength, and links to the Spectrum View to view it in live frequency trace mode. Access point and Client detection are also available options in Wifi Mode. This allows users to receive and sort nearby access points and clients. The RSSI bar shows signal strength and therefore your proximity to the device.

## I&Q RECORDING

I&Q recording allows the MESA 2.0 to capture a short recording of the raw RF energy it is receiving. This allows users to document signals. This signal can now be analyzed by specialized equipment and software for high level classification and characterization.

## FUNCTIONS

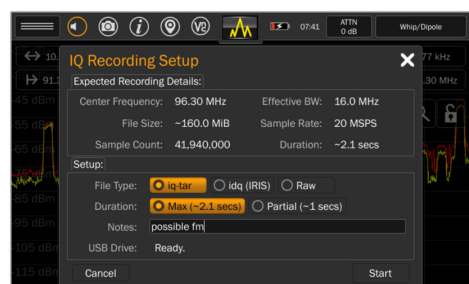
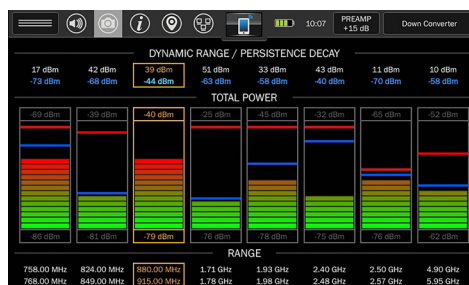
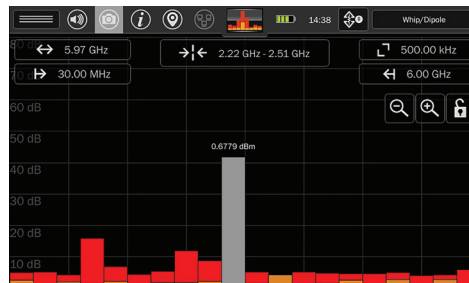
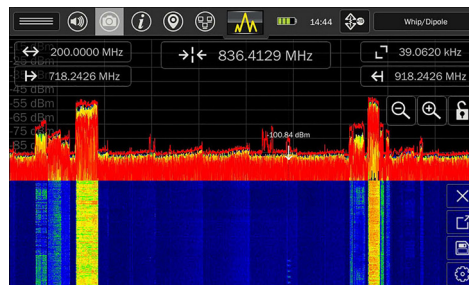
**Cached Peak™** Patent Pending - The MESA 2.0 dynamically adjusts resolution bandwidth depending on viewed frequency span. The Cached Peak™ maintains multiple peak traces to reflect the appropriate frequency span and associated resolution bandwidth.

**Persistence** - Displays a trace with varying color brightness based on the persistence of signals. This provides the ability to determine if multiple signals occupy the same frequency bands.

**Waterfall Display** - Generates a spectrogram view of raster waterfall spectral data.

**Average Trace** - Displays averages between 2 and 64 traces.

**Spectral Power Histogram / RSSI** - Displays a histogram of average RF power over a user defined spectral bandwidth. Time windows available: 30 sec, 1 min, 2 min, or 4 min.



**Signal List Generation** - Generate signal lists manually in Spectrum View or automatically in SmartBars™ Signal Resolution mode.

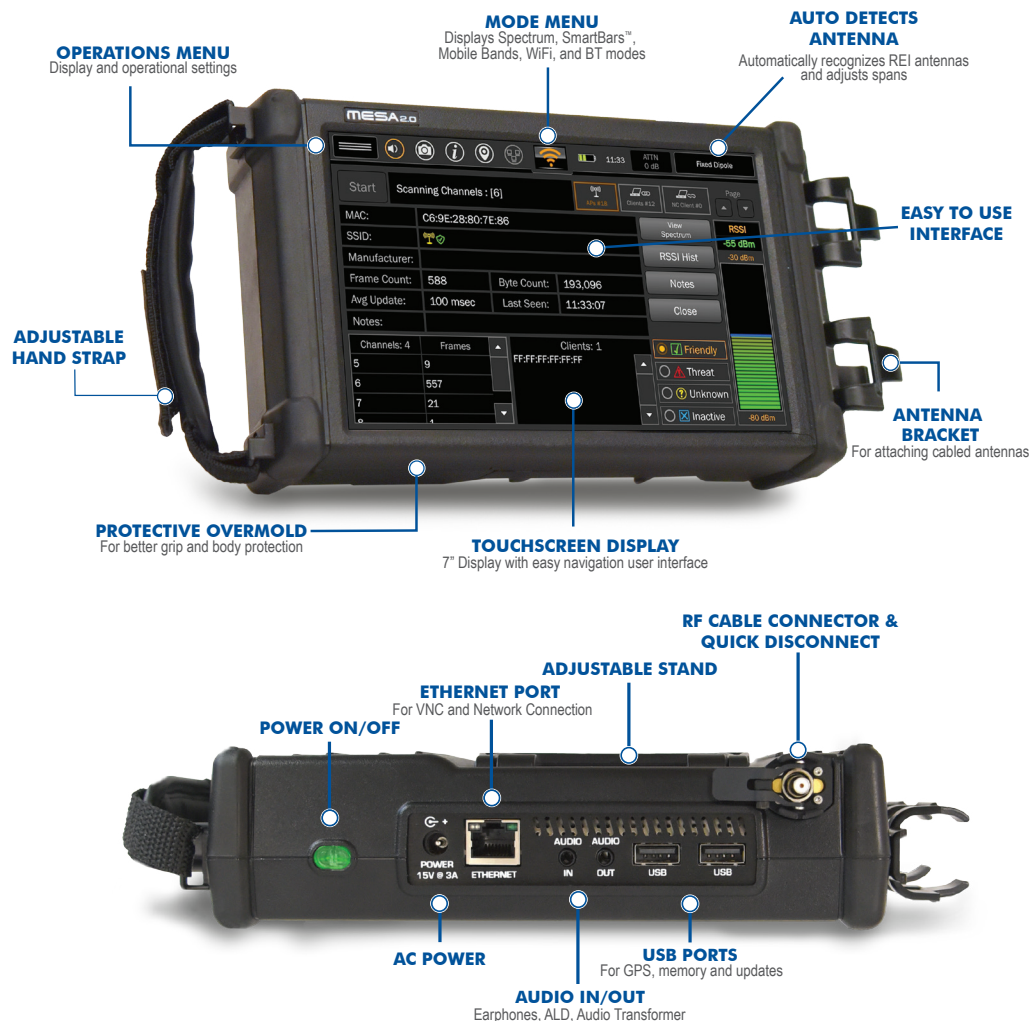
**Alerts** - Visual, Audio, Haptic indications of signal energy exceeding a user defined mask threshold.

**Screen Capture** - Take screen shots of display and store to USB.

**Attenuation** - Apply attenuation 0dB, 10dB, 20dB, Auto, and +15dB Preamp.

**Antenna Probe Recognition** - The MESA automatically detects and adjusts to REI probes and antennas.





## THE RIGHT TOOL FOR THE RIGHT JOB

The MESA 2.0 is a mobile operational tool for finding hidden, illicit, or interfering transmissions, which requires comparing traces from various locations.

MESA 2.0 offers the right tools to locate unknown signals throughout the frequency span, including an improved WiFi / Bluetooth mode, I&Q recording and Mobile cell phone bands.

The right assortment of antennas and probes offer varying frequency ranges and sensitivities to locate the most challenging targets.





# ANDRE<sup>®</sup>

## Near-field Detection Receiver

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## Advanced broadband reception in the palm of your hand.

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The ANDRE is a handheld broadband receiver that detects known, unknown, illegal, disruptive, or interfering transmissions. The ANDRE locates nearby RF, infrared, visible light, carrier current, and other types of transmitters. Quickly and discretely identify threats using the ANDRE's wide range of antennas specifically designed to receive transmissions from 10 kHz up to 12 GHz frequency range.

### HISTOGRAM DISPLAY WITH ZOOM VIEW

The ANDRE features a signal strength histogram displaying RF levels over user-selected time intervals ranging from 5 seconds to 24 hours. Observe differences between digital, analog, and burst signals and set alert thresholds with audio and haptic feedback. In zoom mode, only a 30 dB segment of the histogram is displayed. This reduced scale enables users to easily see small changes in RF signal activity.





## APPLICATIONS

- ✓ Identify the location of suspicious RF signals
- ✓ Sweep secure areas to keep information private
- ✓ Detect a wide range of transmission types
- ✓ Prevent fraud at exam testing sites

## ADVANTAGES

- ✓ Automatically generate a signal list from the strongest detected signals
- ✓ Select any signal for more details including band classification information
- ✓ Classify signals as threatening, friendly, or unknown
- ✓ Demodulate and playback live analog audio



**Up to 12 GHz  
Frequency Range**



**>5 Hour  
Battery Life**



**.65 lbs (.3 kg)  
Unit Weight**



**Type USB-A to  
Micro-B Input**

## ANDRE MODEL OPTIONS

ANDRE model options include Deluxe, Advanced, and Basic:

Antennas/Accessories	Basic	ADV	DLX
Whip Antenna (30MHz - 6GHz)	•	•	•
VLF Antenna (10kHz - 30MHz)	•	•	•
Carrier Current (100kHz - 60MHz)	•	•	•
IR/Visible Light Sensor (10 kHz - 50MHz)	•	•	•
Log Periodic Antenna (500MHz - 6GHz)	•		
Locator Probe (20 MHz - 6GHz)	•	•	
Concealed Probe (750MHz - 6GHz)	•	•	
Audio Transformer (300 Hz - 20kHz)	•	•	
Acoustic Leakage Detector (300 Hz - 20kHz)	•		
Stand Alone Battery Charger	•	•	
Extra Batteries (2)	•	•	
Ultrasonic Probe (15kHz - 80kHz)			•
Directional Antenna (70MHz - 500MHz)		•	
Data Logging			•
*PC Data Viewer			•
Boom Extender, Tripod, IR Filter, powered connector cable			•





# ORION®

## Non-Linear Junction Detector

Detect and help locate hidden electronics regardless of whether or not the electronic device is turned on.

The ORION Non-Linear Junction Detector detects electronic semiconductor components in walls, floors, ceilings, fixtures, furniture, containers, or other surfaces. The ORION is made to detect and locate hidden cameras, microphones, and other electronic devices regardless of whether the surveillance device is radiating, hard wired, or turned off. The ORION's circularly polarized transmit and receive antenna removes the risk of missing a threat due to incorrect antenna polarization. Two antennas are available - 2.4 GHz and 900 MHz. Antennas can be purchased separately or as a Deluxe set (pictured right).

### HOW DOES IT WORK?

The ORION antenna head is a transceiver (transmitter and receiver) that radiates a 1.25 MHz-wide digital spread spectrum signal to determine the presence of electronic components. When the signal encounters semiconductor junctions (diodes, transistors, circuit board connections, etc.), a harmonic signal returns to the receiver. The receiver measures the strength of the harmonic signal and distinguishes between 2nd or 3rd harmonics. When a stronger 2nd harmonic signal is present, visual, audio, and haptic feedbacks alert users that a junction has been detected.





## APPLICATIONS

- ✓ Sweep surfaces for eavesdropping electronics
- ✓ Interchange 900 MHz and 2.4 GHz antenna heads to search a variety of materials
- ✓ Protect executives, celebrities, and other VIPs from illicit observation
- ✓ Safeguard the public from illicit surveillance

## ADVANTAGES

- ✓ Digitally modulated transmit signal, correlated 2nd & 3rd harmonic response, and adjustable DSP gain provide improved detection & minimize interference
- ✓ Line-of-sight display allows target and display visualization simultaneously
- ✓ No assembly required with integrated telescoping pole



**2.4 GHz & 900 MHz  
Frequency Bands**



**>4 Hour  
Battery Life**



**3.6 lbs (1.6 kg)  
Unit Weight**



**Type USB-A to  
Mini-B Input**

### ORION HX Deluxe

The ORION HX Deluxe includes both antenna heads that are easily exchanged by simply turning a pair of thumb screws. The longer 900 MHz wavelength excels at detecting older, less refined circuitry and also penetrating denser building and construction materials compared to the shorter wavelength of the 2.4 GHz model, which excels at detecting modern, surface mounted circuitry in normal office environments.

### ORION MODEL OPTIONS

To satisfy a variety of international compliance regulations including FCC, CE, and others, different ORION models are available:

- ORION 2.4 HX - 3.3 watt
- ORION 2.4 HX - 6.6 watt
- ORION 900 HX - 1.4 watt
- ORION 900 HX - 3.2 watt
- ORION HX Deluxe - 6.6/3.2 watt

All ORION orders come with the quick-disconnecting handle, allowing customers to add-on the alternate antenna head at any time. Keypad models also available.





## Analyze digital, analog, and VoIP phone systems and wiring for faults and security risks.

The TALAN Telephone & Line Analyzer combines multiple phone and wiring tests into a single piece of equipment. In addition to multimeter tests, the TALAN performs Non-Linear Junction Detection, RF analysis, and Frequency Domain Relectometry. A multi-test database system provides the ability to perform tests on all pair combinations, storing data for historical comparison and comparison against other lines.

### AUTOMATIC SWITCHING MATRIX

The TALAN includes a built-in automatic switching matrix for testing all pair combinations. For example, if a cable has 8 conductors, there are 28 combinations of pairs to test; the TALAN can automatically switch through all combinations, performing test functions and storing test results for comparison.





## APPLICATIONS

- ✓ Detect wire taps
- ✓ Locate illicit tampering and security vulnerabilities
- ✓ Trace wires to determine line breaks
- ✓ Analyze VoIP packet traffic for anomalies

## ADVANTAGES

- ✓ Automatically switches through all line pair combinations with every test
- ✓ Combines capabilities of a high gain audio amplifier, line tracer, and multimeter
- ✓ No other piece of equipment exists that can perform all of the TALAN tasks



**Demodulate  
50+ Codecs**



**4 Hour  
Battery Life**



**6 lbs (2.7 kg)  
Unit Weight**



**Compact Flash  
& USB-A Inputs**

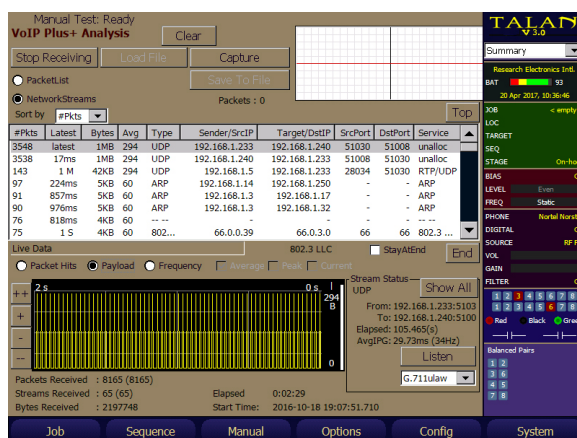
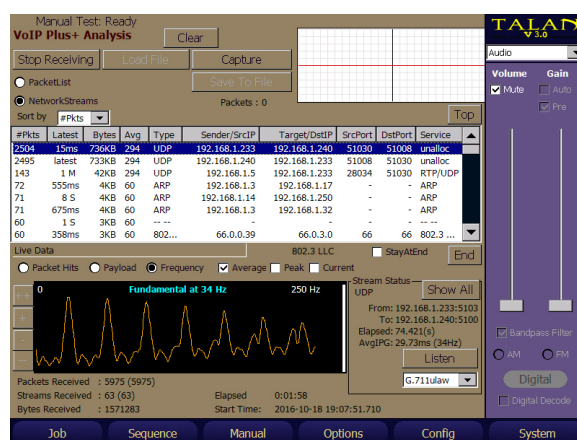
## VOIP PLUS+ ANALYSIS

The TALAN can capture and analyze network streams for fast identification of unauthorized VoIP traffic. Users can quickly detect if a VoIP phone system is passing data packets when the phone is not in use. VoIP data collected by the TALAN includes:

- Source and destination MAC/IP addresses
- Header type
- Number of total packets
- Packet rate
- Peak rate
- Run time

The TALAN software recognizes older protocols that other equipment may miss, increasing the probability of detection. Extensive, advanced filtering makes it easier to locate and identify suspicious packet information. New functionality allows for on-board analysis versus exporting information to third-party packet analyzing software.

The patent-pending Fast Fourier Transform algorithm converts the arrival times of network traffic into a packet frequency graph. By transforming this information from time domain to frequency domain, the TALAN creates identifiable patterns not easily noticed in a traditional packet list allowing the user to detect live VoIP traffic.



# TALAN TELEPHONE AND LINE ANALYZER

## DIGITAL MULTIMETER TESTS & DEMODULATION

The TALAN includes multimeter tests such as Voltage, Current, Capacitance, and Resistance. A new input panel provides the ability to test twisted pairs against modern telecommunication threats including shield and ground. Dwell selection options allow for greater accuracy without sacrificing speed.

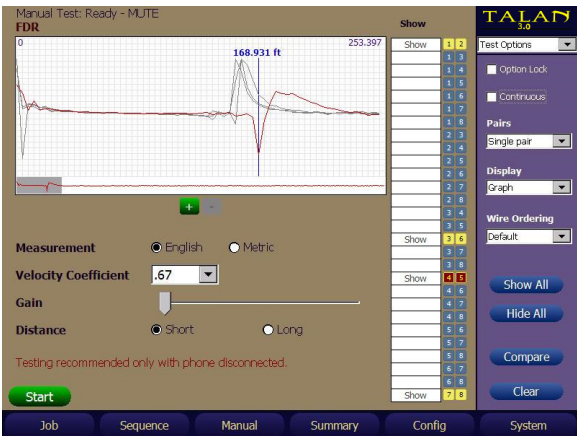
The Digital Demodulation function provides the ability to determine if a digital phone line is passing audio when it should not. The TALAN is able to digitally demodulate 50+ codecs.



## FREQUENCY DOMAIN REFLECTOMETER (FDR)

Similar to a TDR (Time Domain Reflectometer) but based on a different technical approach, the TALAN's FDR can “shoot” a line for impedance anomalies indicating a potential security threat.

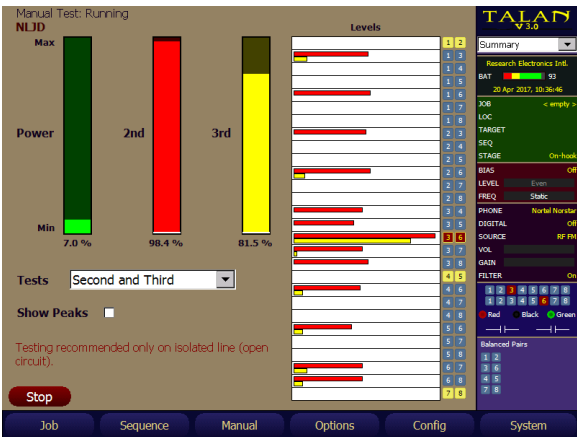
A TDR only displays a single trace making it difficult to determine whether a fault response is the result of a connection block in a normal wiring plan or a wire tap. With the TDR, a trace from each pair combination would have to be collected separately and then compared. The TALAN FDR, on the other hand, can display multiple pair traces on the same graph.



## NON-LINEAR JUNCTION DETECTION ON A LINE

The TALAN includes a NLJD test to detect electronics connected to an isolated line. This is one of the most powerful tests for quickly determining whether there are additional electronics attached to a wire.

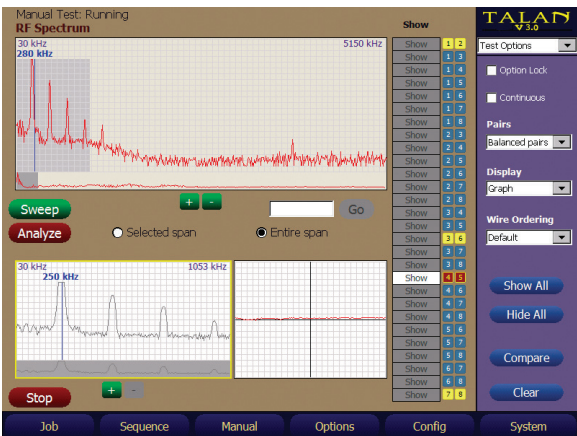
The example to the right indicates a parallel tap on pair 3:6. Because of multiple pair combinations any combination with either a 3 or 6 indicates some response, but the electronics are clearly detected on pair 3:6 with the strongest response.



## RF ANALYSIS & DETECTION

The TALAN includes a Spectrum Analyzer that provides a detailed frequency spectrum display up to 85 MHz. This function also includes a time domain display to show the modulation for AM and FM signals.

The TALAN also includes a Broadband RF Probe to check free space RF energy up to 8 GHz, graphing the RF level over time to identify the location of a transmitter.





Expansion port supports  
communication and measurement  
with future accessories

Shielded MOD8/RJ45 Jacks

8.4 in (21.3 cm)  
color display  
touch screen



Built-in high gain  
audio amplifier and  
DC bias voltage  
generator

Visually observe  
patterns of consistent,  
repetitive VoIP traffic



## HOW IS THE TALAN USED FOR TSCM?

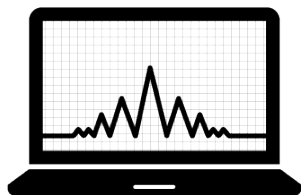
Business phones have built-in microphones, speakers, conductive cabling and a never ending power source and can be found throughout office buildings everywhere. With the right know-how, a telephone can be turned into an eavesdropping device - one that would be very difficult to detect.

Idle phones, extra cabling, and unused pairs are all opportunities to access a system. Testing these vulnerabilities can be done manually with a variety of electronic tools including voltmeters, audio amplifiers, line tracers, and more. However, testing should be done by someone trained with the correct test procedures to keep from alerting attackers or damaging the system. Manual testing can also be enormously time consuming and often impractical, especially when it comes to conductor pair testing.

The TALAN significantly streamlines the testing process. Perform multiple tests on all pair combinations and store the results for comparison.

## POST-INVESTIGATION RESOURCES

The TALAN comes with a data viewer PC application provides the ability to organize, analyze, and export TALAN test sequence data and charts for report writing. Moreover, the software provides the ability to compare numerous phones/targets on the same chart allowing the user to quickly identify anomalies.





# TTK

## TACTICAL TSCM KIT

A tactical, deployment ready sweep kit for the frequent traveler - pack light and accomplish a lot.

### PRODUCTS INCLUDED

The TTK includes a range of proven products to detect and locate hidden electronics - MESA handheld spectrum analyzer, ORION 2.4 HX NLJD, ANDRE broadband detector, CMA - 100 audio amplifier, digital multi-meter, thermal imager (U.S. Only), and applicable accessories.

- **COMPACT**
- **VERSATILE**
- **PORTABLE**



<25lbs  
Case Weight



Dynamic  
TSCM Solutions



Suitable for  
carry-on



# CMA-100

## Multi-purpose high gain audio amplifier.

CMA-100 Countermeasures Amplifier is a high gain audio amplifier used to detect and identify certain types of surveillance devices attached to building wiring such as telephone wiring, LAN and server systems, AC power, and alarm wire. The CMA-100 employs a sophisticated automatic gain control circuit (with manual option) that is superior to most audio amplifiers.

### FEATURES AND APPLICATIONS

Large signals can be monitored with minimal distortions and adjustable bias voltage can activate devices that are voltage or current sensitive. The balanced input impedance can withstand being attached to live power lines with voltages up to 250V. The CMA contains a built-in AC/DC digital voltmeter, selectable audio filters, and a wide dynamic range.



**115 dB**  
Gain Control



**50k  $\Omega$**   
Input Impedance



**12.1 oz (343 g)**  
Unit Weight



# ANG-2200

## Protecting private conversations with unintrusive noise masking.

The ANG-2200 Acoustic Noise Generator creates a perimeter of noise that defeats acoustic leakage eavesdropping devices including wired microphones inside walls, contact microphones, audio transmitters located in AC outlets, and laser/microwave reflections from windows.

### FEATURES AND APPLICATIONS

The masking system injects noise into the environment perimeter and not directly into the environment—allowing normal conversation while defeating eavesdropping devices. Two channels are offered, each with high and low frequency control to compensate for material composition, with truly random noise sources.



**Dual Channel**  
Control



**Analysis**  
Software



**125 Hz - 4 kHz**  
Frequency Range





Regularly-scheduled courses specializing in basic and advanced countersurveillance procedures.

## ADVANTAGES

- ✓ Over 15,000 square feet of dedicated classrooms and project rooms
- ✓ More than 50 scheduled week long courses annually
- ✓ 7 full-time experienced TSCM instructors
- ✓ Network with other security professionals
- ✓ Custom and private courses available at REI or on location.

REI offers the largest commercially available technical surveillance countermeasures (TSCM) training facility in the world. Students perform countermeasure sweep exercises in target-rich project rooms that simulate live environments. REI has a progressive curriculum suitable for both beginning and advanced technicians. Ensure your sweep skills and equipment are up to date against sophisticated, modern threats during one of REI's regularly-scheduled courses.

All courses include hands-on exercises, using state-of-the-art equipment in dedicated project rooms that simulate threat scenarios. Threats include RF transmitters with analog and digital modulation techniques, hidden cameras, tapped telephone and LAN lines, infrared, and carrier current. The training facility also includes a high-end signal generator to simulate various types of modulation techniques. Students use project rooms to exercise their knowledge of the use of detection equipment.

For course descriptions and registration:  
**[reiusa.net/rei-training-center](http://reiusa.net/rei-training-center)**



**COUNTERMEASURES CORE CONCEPTS - LEVEL 1**

This introductory course familiarizes students to the components of a countersurveillance investigation and the related sweep equipment. Students will learn about telephone testing, non-linear junction detectors, basic RF search techniques and investigative procedures.

**TACTICAL TSCM KIT COURSE - LEVEL 1**

This course focuses on the operation and deployment of the MESA – Mobility Enhanced Spectrum Analyzer, and a review of basic RF search techniques and investigative procedures, the ANDRE broadband detector, ORION 2.4 Non-linear Junction Detector, CMA-100 amplifier and thermal imaging camera. This course is designed to introduce and familiarize the technical security specialist with various counter surveillance equipment in one tactical case, convenient for travel and easy deployment.

**OSCOR RF COUNTERMEASURES - LEVEL 2**

Prerequisite: Countermeasures Level 1

This course begins with a brief highlight of TSCM threats and equipment, and then focuses primarily on the operation and deployment of the OSCOR RF spectrum analyzer, including detection and location of potentially illicit or unknown RF signals using trace analysis and RF mapping.

**MESA COUNTERMEASURES - LEVEL 2**

Prerequisite: Countermeasures Level 1

This course focuses on the operation and deployment of the MESA including detection and location of potentially illicit or unknown RF signals using Smart Bars analysis and various Spectrum Analyzer tools.

**TALAN TELEPHONE COUNTERMEASURES - LEVEL 2**

Prerequisite: Countermeasures Level 1

This course provides in depth instruction on digital telephone system testing and analysis for technical threats, including the operation of the TALAN Telephone and Line Analyzer.

**RF CERTIFICATION - LEVEL 3**

Prerequisite: Countermeasures Level 1 & OSCOR Level 2

This advanced TSCM course provides one and a half days of refresher training and two and a half days of pass/fail certification testing; the last day is reserved for retraining and retesting advanced concepts of RF detection equipment.

**MESA CERTIFICATION - LEVEL 3**

Prerequisite: Countermeasures Level 1 & MESA Level 2

This course focuses on the operation and deployment of the MESA including detection and location of potentially illicit or unknown RF signals using Smart Bars analysis and various Spectrum Analyzer tools.

**TALAN CERTIFICATION - LEVEL 3**

Prerequisite: Countermeasures Level 1 & TALAN Level 2

This advanced telephony course provides one and a half days of refresher training on the TALAN Telephone and Line Analyzer, and two and a half days of pass/fail certification testing; the last day is reserved for retraining and retesting advanced TALAN concepts.

**VOIP - LEVEL 3**

Prerequisite: Countermeasures Level 1 & TTALAN Level 2

This course will introduce students to the emerging technology of VoIP (Voice over Internet Protocol) from a countersurveillance perspective. Students will gain an understanding of basic networking essentials and VoIP hardware and software.

**ADVANCED EQUIPMENT USE - LEVEL 3**

Prerequisite: All Level 2

This class includes one day of equipment review and advanced TSCM concepts training followed by an elaborate multi-day exercise that focuses on procedures and concepts that test students' ability to deploy equipment effectively.



REI esta ofreciendo un paquete de Curso en Español que incluye Los Conceptos Principales de Contramedidas-Nivel 1 y un curso combinado de RF OSCOR y TALAN -Nivel 2.

Los cursos de capacitación en seguridad técnica de REI están diseñados para enseñar los conceptos de procedimientos básicos y avanzados de llevar a cabo una investigación de contra vigilancia. Todos los cursos incluyen ejercicios prácticos, utilizando equipos de última generación en salas de proyectos dedicados que simulan escenarios de amenazas.

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