



# OSCOR<sup>TM</sup> *Blue*



## Spectrum Analyzer

Two models available: OBL-24 (24 GHz) and OBL-8 (8 GHz)

U.S. PATENTS: 6,397,154; 7,058,530  
Additional Patents Pending



Whip antenna extension connector

Auto Switching Antenna Panel (utilizes 5 independent antennas)

Headphone Jack

8.4 inch (21.3 cm) High Resolution Touch Screen Display with "drag" & "move" controls

Hand Straps

Soft Function Menu Keys

Power Button

Built-In Speakers

DC Power Input (charges battery)

USB Port for Memory/Keyboard/Mouse

Compact Flash Memory Port

Rotary Tuning Dial

Menu Control Keys

Numeric Keypad

Rubber Grips

### Antenna Panel Inputs

8 GHz - 24 GHz (OBL-24 only)

Antenna Panel Control

50 kHz - 8 GHz

(shown with protective port covers removed)

### Auxiliary Antenna Inputs

10 MHz Baseband Out

IF Out ports 75 MHz

Aux Control Port

Aux RF In 50 kHz - 8 GHz



# OSCOR<sup>TM</sup> Blue

## Spectrum Analyzer

Two models available: 24 GHz (OBL-24) and 8 GHz (OBL-8)  
Specifications shown are for OBL-24 model



Complete integrated  
spectrum analyzer system  
with built-in antennas and  
analysis software

The OSCOR Blue is a hand-held spectrum analyzer with a rapid sweep speed and functionality suited for detecting unknown, illegal, disruptive, and anomalous rogue transmissions across a wide frequency range. This capability makes the OSCOR Blue an ideal product for:

- Site Surveys for communications systems (cell towers, microwave links, etc...)
- RF emissions analysis
- Wireless service providers and installers
- Evaluating communication channel utilization
- Investigating misuse of the crowded RF spectrum
- Security surveys for unauthorized or illicit transmissions

World communications systems are rapidly expanding in many areas especially mobile land and satellite based broadband communication systems. The OSCOR Blue provides important tools to evaluate these systems and integrate them into ambient RF environments.

Managing the RF spectrum is critical to many organizations such as hospitals, airports, laboratories, businesses, construction sites, mining operations, shipping ports, and large cities.



With world economies competing for business, high level corporate security requires eavesdropping detection for the protection of trade secrets, new product developments, marketing strategies, company sensitive information, financial information, legal counsel and new business strategies including mergers and acquisitions.

Eavesdropping detection is an important aspect of VIP protection. Businessmen, movie stars, royalty, sports figures, politicians, and other celebrities rely on VIP security services to protect them from individuals wishing to stalk, spy, harass, or threaten.

**OSCOR Blue provides the tools for  
detecting sophisticated RF signals in  
the toughest environments.**



## Sweep & Operational Speed

OSCOR Blue sweeps 24 GHz in 1 second in 12.2 kHz steps. Fast sweep time, built-in antennas, and on-board software make the OSCOR Blue easy and quick to deploy, optimizing total operational speed.

## Built-in Auto-Switching Multi-Antenna System

- 1 **SEAMLESS REAL TIME SPECTRUM VISIBILITY** from 100 kHz to 24 GHz or 100 kHz to 8 GHz (depending on the model) using the integrated Auto-Switching Multi-Antenna System.
- 2 **BUILT-IN 10 dB PRE-AMP** improves receiver sensitivity.
- 3 **CAPTURES COMPREHENSIVE SIGNAL ACTIVITY** without missing signals due to limited antenna range or from having to switch external antennas.

## Portability

The OSCOR Blue is lightweight (9.6 lbs./4.4 kg), small and hand-held for easy mobility through target areas while collecting trace data. The built-in antennas and analysis software make it easy to deploy, and quickly capture and compare spectrum data from multiple locations.

## Patented Trace Analysis for Rapid Signal Detection

The size, speed, and portability of OSCOR Blue are important, but REI's trace analysis functionality adds dimension by providing full analysis of trace data on-board. Perform trace analysis on-screen without the need for a laptop. Functional features of the Trace Analysis software and easy navigation contribute to OSCOR Blue's efficient sweep performance.

- 1 **DISPLAYS 24 GHz OF LIVE TRACE DATA PER SECOND** at 12.2 kHz resolution.
- 2 **QUICKLY DETECTS LOCALIZED RF ENERGY TRANSMISSIONS OF ALL TYPES OF MODULATION**
- 3 **DETAIL ZOOM MODE INVESTIGATES AND ZOOMS** in on signals in the spectrum without interrupting full spectrum peak trace capture.
- 4 **PATENTED TRACE ANALYSIS** is built into functionality. Reference and target traces are quickly captured, stored, and compared for complete RF Mapping solution.

## Signal List Generation

The OSCOR Blue collects peak trace data and then generates a signal list from the peak trace. Moreover, OSCOR Blue can subtract a reference trace from a target sweep trace, and then create a signal list from the difference trace, very quickly showing a list of signals unique to the target area.

- 1 **SIGNAL LIST GENERATED FROM TRACE DATA** using proprietary algorithm
- 2 **MULTIPLE PASS SIGNAL LIST CREATED IN SECONDS**
- 3 **LOGS INTERMITTENT SIGNALS** (burst/packet & frequency hopping)



Zoom to a frequency range while continuing full peak capture

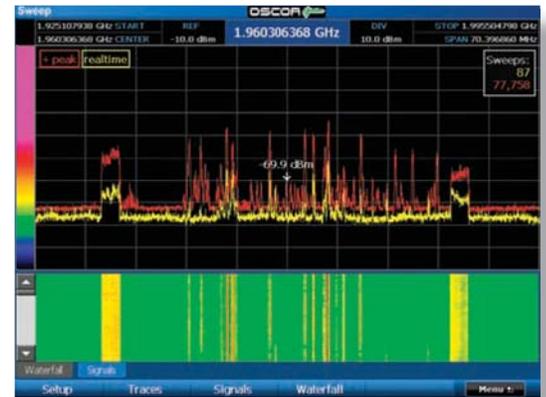


## Waterfall Analysis

Captures and records signal peak traces over time for historical analysis of spectrum activity.

### TWO WATERFALL MODES

- **Real Time Raster View**
  - Provides waterfall view from real time receiver traces for quick analysis
- **Trace Recorder**
  - Trace sequences recorded over time permitting detailed data analysis and zoom. Intermediate trace data stored in 5 second intervals at 12.2 kHz resolution.
  - Records detailed trace data for spectrum reconstruction allowing user to zoom and pan within recorded spectrum (not limited to screen capture resolution).



## Signal Analysis and Location

**SIGNALS** are easily located based on RSSI level change and near field locating function.

## Built-In Suite of Demodulators

### AUDIO DEMODULATORS

- |                 |                   |
|-----------------|-------------------|
| 1 FM wideband   | 4 AM narrowband   |
| 2 FM narrowband | 5 Sub-carrier     |
| 3 AM wideband   | 6 Single Sideband |

### VIDEO FORMATS

- 1 NTSC, PAL, SECAM
- 2 Wideband AM or wideband FM demodulation
- 3 Video demodulation displayed within screen

### DEMODULATION BANDWIDTHS

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

**REAL-TIME FREQUENCY SPECTRUM UPDATE AND DISPLAY WHILE DEMODULATING.**



## Multi-Purpose Probe

OSCOR Blue includes a Multi-Purpose Probe that plugs into the Auxiliary port for capturing carrier current, IR, CATV (F Connector), VLF Antenna.





# OSCOR™

## Blue

### Spectrum Analyzer



## OSCOR Blue ADVANTAGES

### FAST SWEEP TIME

24 GHz IN LESS THAN 1 SECOND (depending on model)

### COMPLETE PACKAGE

#### INTEGRATED AUTO-SWITCHING ANTENNA SYSTEM

50 kHz to 8 GHz OR 24 GHz (depending on model)

### TRACE ANALYSIS

COMPARE PEAK TRACES TO IDENTIFY RF ENERGY UNIQUE TO SPECIFIC ENVIRONMENTS

### EASILY LOCATES RF SIGNALS

PORTABLE DESIGN MINIMIZES SET UP TIME WHEN MOVING FROM SITE TO SITE

## TECHNICAL SPECS

### RF SYSTEM

Frequency: 8 GHz Model (OBL-8) = 50 kHz to 8 GHz

24 GHz Model (OBL-24) = 50 kHz to 24 GHz

Displayed Average Noise Level (DANL) (25 kHz Resolution Band Width)

Without Preamp = -100 dBm

With Preamp = -110 dBm

Sweep Speed: 24 GHz/second

Preamp: DC-8 GHz = 10 dB

Attenuation: DC-24 GHz = 0 dB, -10 dB, -20 dB, -30 dB

Dynamic Range:

Min/Max Range: 90 dB

SFDR: 80 dB

### AUDIO SYSTEM

Demodulation Types: AM, FM

Filter Sizes: 200 kHz, 12.5 kHz, 6 kHz, 2 kHz

Subcarrier Filters: 6.25 kHz, 12.5 kHz, 200 kHz

Headphone Output (low leakage headphones included)

Built-in Speakers

### VIDEO SYSTEM

Formats: NTSC, PAL, SECAM

Demodulation: AM, FM

Filter Sizes: 13.5 MHz, 6.25 MHz

Subcarrier Filters: 6.25 kHz, 12.5 kHz, 200 kHz

### ANTENNA SYSTEM

Built-in Auto Switching Antenna System:

Frequency: 8 GHz Model (OBL-8) = 100 kHz to 8 GHz

24 GHz Model (OBL-24) = 100 kHz to 24 GHz

### INPUTS/OUTPUTS

Aux RF In: 50 kHz to 8 GHz

IF Out: 75 MHz @ 30 MHz BW

Baseband Out: 100 Hz – 6 MHz

Expansion: Future Expansion Port

### USER INTERFACE

Integrated Touch Screen with 8.4" Display

Soft Keys and Rotary Optical Encoder

USB Port (A type): for peripherals (Keyboard, Mouse)

### POWER SUPPLY

Universal Power Supply included: 100-240 VAC, 50-60 Hz

Removable Battery: Rechargeable Lithium ion, 2-3 hour runtime

### EXTERNAL STORAGE CAPABILITY

Compact Flash (CF) Slot

USB-A Port

### MECHANICAL

Dimensions: 11.5 in x 13.2 in x 3.0 in (29.2 cm x 33.5 cm x 7.6 cm)

Weight with Battery: 9.6 lbs (4.4 kg)

Case Dimensions: 5.5 in x 14.9 in x 19.5 in (14 cm x 37.8 cm x 49.5 cm)

Loaded Case Weight: 21.0 lbs (9.5 kg)

Operating Temperature: 0° C to +50° C



The OSCOR Blue is listed on the United States Munitions List (USML) and, along with related software and technical data, will require an export license under the International Traffic in Arms Regulations (ITAR) per the U.S. Department of State's Directorate of Defense Trade Controls (DDTC).