FULL 24 GHz COVERAGE

Choose between 24 GHz (OGR-24) or 8 GHz (OGR-8) for complete spectrum analysis from 10 kHz to 24 GHz.

MARKETING CHARACTERISTICS

FULL 24 GHZ - 24 ·GHZ

(OGR-24 only)

Baseband Out IF Out ports Aux Control Port

10 kHz - 8 GHz

Antenna Panel Controls

5 kHz - 8 GHz

10 kHz - 8 GHz

Auxiliary Antenna Inputs

8.4 inch (21.3 cm)

High Resolution

Touch Screen Display with "drag" & "move" controls

Headphone Jack

8 inch (20.3 cm) Whip antenna extension connector

Auto Switching Antenna Panel Utilizes 5 independent antennas

Hand Strap

Soft Function Menu Keys

Power Button

Built-In Speakers

DC Power Input (charges battery)

Compact Flash Memory Port

Rubber Grips

Menu-Control Keys

Built-in Auto Switching Antenna System:

Frequency:

OGR-8 Model (10 kHz usable) to 8 GHz

OGR-24 Model (10 kHz usable) to 24 GHz

INPUTS/OUTPUTS

Aux RF In: 10 kHz - 8 GHz

IF Out: 25 MHz wide centered at 75 MHz

Baseband Out: DC – 6 MHz

Expansion: Aux Control Port for MPP

REMOTE CAPABILITY

Ethernet Port for VNC remote access

USER INTERFACE

Integrated Touch Screen with 8.4" Display

Soft Keys and Rotary Optical Encoder

USB Ports (A type): for peripherals (keyboard, mouse)

POWER SUPPLY

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

Removable Battery: Rechargeable Lithium ion, 4-hour runtime (typical)

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:

14.9 in x 19.5 in x 5.5 in (37.8 cm x 49.5 cm x 14 cm)

Loaded Case Weight:

21.0 lbs (9.5 kg)

Operating Temperature:

0° C to +50° C

ADVANTAGES

FULL 24 GHZ COVERAGE

Choose between 24 GHz (OGR-24) or 8 GHz (OGR-8) for complete spectrum analysis from 10 kHz to 24 GHz.

TRAINING BY REI INSTRUCTORS

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PRODUCT SPECIFICATIONS

SPECTRUM ANALYZER

RF SYSTEM

Frequency:

OGR-8 Model (10 kHz usable) to 8 GHz

OGR-24 Model (10 kHz usable) to 24 GHz

Sensitivity/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:

800 kHz, 200 kHz, 12.5 kHz, 6.25 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:

12.75 MHz, 6.375 MHz

Subcarrier Filters:

6.25 kHz, 12.5 kHz, 200 kHz

ANTENNA SYSTEM

Built-in Auto Switching Antenna System:

Frequency:

OGR-8 Model (10 kHz usable) to 8 GHz

OGR-24 Model (10 kHz usable) to 24 GHz

Compression Ratio:

20 dB

INPUT/OUTPUTS

Aux RF In: 10 kHz - 8 GHz

IF Out: 25 MHz wide centered at 75 MHz

Baseband Out: DC – 6 MHz

Expansion: Aux Control Port for MPP

REMOTE CAPABILITY

Ethernet Port for VNC remote access

USER INTERFACE

Integrated Touch Screen with 8.4" Display

Soft Keys and Rotary Optical Encoder

USB Ports (A type): for peripherals (keyboard, mouse)

Power Supply

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

Removable Battery: Rechargeable Lithium ion, 4-hour runtime (typical)

EXTENDED FEATURES SIMPLIFIED

OGR-24 + 320 GB USB Drive

OGR-8 + 256 GB USB Drive

OGR-24 + 500 GB USB Drive

OGR-8 + 1 TB USB Drive

OGR-24 + 1.5 TB USB Drive

OGR-8 + 2.5 TB USB Drive

SHORT DESCRIPTION

Two models available: 24 GHz and 8 GHz

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

Additional Patents Pending
The OSCOR Green is a hand-held spectrum analyzer with a rapid sweep speed and easy-to-use functionality suited for detecting wireless, digital, discrete, and anomalous rogue transmissions across a wide frequency range.

- **RF emissions analysis**
- **Investigating misuse of the crowded RF spectrum**
- **Site Surveys for communications systems (all bands, microwave links, etc...)**
- **Wireless service providers and installers**
- **Security surveys for eavesdropping detection**

With world economies competing for business, high level corporate security requires improvements to limited antenna range or from having to switch external antennas. Eavesdropping detection is also an important aspect of RF protection. Executives, celebrities, and politicians rely on RF security services to protect them from individuals wishing to harass or harm.

### SPECTRUM ANALYZER

The OSCOR Green sweeps a 24 GHz span in 1 second in 12.2 kHz steps utilizing multiple built-in antennas. Fast Sweep & Operational Speed

- Sweeps 10 kHz to 24 GHz
- Demodulates analog AM/FSK, FM, multipath, and spread spectrum data from multiple locations.
- BUILT-IN 10 dB PRE-AMP
- Built-In Auto-Switching Multi-Antenna System
- Spectrum analysis of trace data from 20 kHz - 20 MHz

### Built-In Suite of Demodulators

- Audio: 10 MHz to 250 MHz
- Video: 12.75 MHz, 6.375 MHz
- FM wideband
- FM narrowband
- AM wideband
- AM narrowband

### Demodulation Bandwidths

- 50 kHz to 1.2 GHz
- 1.5 GHz to 8 GHz

### Remote Operation Using VNC

The OSCOR Green collects peak trace data and then generates a signal list from the peak trace data. Moreover, the OSCOR Green can subtract a reference trace from a target sweep trace and create a signal list unique to the target area.

### Signal List Generation

- SIGNAL LIST GENERATED FROM TRACE DATA
- MULTIPLE PASS SIGNAL LIST CREATED IN SECONDS
- LOGS INTERMITTENT SIGNALS (burst/packet & frequency hopping)

### Signal Analysis and Location

- SIGNALS are easily located based on RSSI level change
- CORRELATION & RANGING
- MAGNIFY: compare histogram traces to peak traces to log newly detected signals over time

### Persistence Display

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

### Directional Antenna

Directional response means boosting transmitters easier. The directional antenna is handheld or can be clipped to the antenna panel.

###續

- carrier Current signals between 10 kHz - 150 kHz
- FM (20 kHz) for single ended and general purpose measurements (75 ohm cable terminator included), with frequency range from 5 kHz to 2 GHz, CATV for low measurements of cable TV systems
- COFDM: for analyzing low frequency spectrum activity from 20 kHz - 20 MHz
- IR (700-1100 nm) for detecting line of sight infrared signals from 50 kHz to 1 GHz
- VIS (450 - 1100 nm) for detecting visible light transmissions from 50 kHz to 1 GHz

### OSCOR Green Data Viewer Software

Data Viewer software is a free downloadable PC application that allows users to open, view, analyze, export, print, and save OSCOR Green files including trace, signal, audio, and screen capture files (i.e. waterfall).

Download the Data Viewer software at www.reiusa.net.
The OSCOR Green is lightweight (9.6 lbs./4.4 kg), small and hand-held for easy mobility through target areas.

### Portability

- **RF emissions analysis**
- **Investigating misuse of the crowded RF spectrum**
- **Site Surveys for communications systems (cell towers, microwave links, etc.)**
- **Wireless service providers and installers**
- **Security surveys for eavesdropping detection**

With worldwide economies competing for business, high level corporate security requires eavesdropping detection for the protection of trade secrets, new product developments, and company sensitive information. Eavesdropping detection is also an important aspect of VIP protection. Executives, celebrities, and politicians rely on VIP security experts to protect them from individuals wishing to harass or harm.

### Captures comprehensive signal activity

- **BUILT-IN 10 dB PRE-AMP**
- **Built-in Auto-Switching Multi-Antenna System**
- **Remote Operation Using VNC**

Remote Operation Using VNC

The emitter port allows remote access to the OSCOR Green. This functionality offers the flexibility to remotely monitor a sweep in progress.

### Patented Trace Analysis for Rapid Signal Detection

If the trace analysis functions provide full analysis of trace and signal data on-board without the need for a laptop:

1. **DISPLAYS 24 GHz OF LIVE TRACE DATA PER SECOND** at 12 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 peak trace capture.
4. **PATIENTED TRACE ANALYSIS** is built into functionality. Reference and target traces are quickly captured, stored, and compared for complete RF Mapping solution.

### Spectrum Analyzer

- **Two models available: 24 GHz and 8 GHz**
- **Specifications shown are for 24 GHz model**
- **Sweeps 10 kHz to 24 GHz (depending on the model)** using the integrated Auto-Switching Multi-Antenna System.
- **Five pre-set frequency bands: 50 kHz to 1.2 GHz, CA TV for in-line measurements of cable TV systems** (include) with frequency range from 5 MHz to 2 GHz, CATV for low measurements of cable TV systems.
- **VLF Magnetic Loop for analyzing low frequency RF emissions**
- **IR (700-1100 nm) for detecting line of sight infrared signals**
- **50 kHz to 1.2 GHz**

### Data Viewer Software

- **Download the Data Viewer software at www.reiusa.net.**
- **Users to open, view, analyze, export, print, and save OSCOR Green files (i.e. waterfall).**
- **Includes trace, signal, audio, and screen capture files (i.e. waterfall).**
- **OSCOR Green Data Viewer Software**

### Built-In Suite of Demodulators

<table>
<thead>
<tr>
<th>AUDIO</th>
<th>VIDEO FORMATS</th>
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<td>FM narrowband</td>
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<td>AM narrowband</td>
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<tr>
<td>Subcarrier</td>
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</tr>
<tr>
<td>SingleSide</td>
<td>Video: 12.75 kHz, 6.375 kHz</td>
</tr>
</tbody>
</table>

### Spectrum Display

- **Persistence Display**
- **Multi-Purpose Probe**
- **Directional Antenna**
  - **Range:** 1.5 GHz to 8 GHz
  - **Gain:** Approximately 6 dB

### Patented Trace Analysis

- **Correlates multiple signals**
- **Locates and identifies potential threats**
- **Merges two peak traces into one**
- **DETAIL ZOOM MODE INVESTIGATES AND ZOOMS IN ON SIGNALS** in the spectrum without interrupting full peak trace capture.
- **Signal List Generation**
- **Correlates and references**
- **In on signals**
- **Displays 24 GHz of live trace data per second**
- **Captures comprehensive signal activity**
- **Log intermittent signals**
- **Signal Analysis and Location**
- **Demodulating audio signals in Analog mode**
- **OSCOR Green Data Viewer Software**
- **Data Viewer software is a free downloadable PC application that allows users to open, view, analyze, export, print, and save OSCOR Green files including trace, signal, audio, and screen capture files (i.e. waterfall).**
- **Download the Data Viewer software at www.reiusa.net.**
The OSCOR Green is a hand-held spectrum analyzer with a rapid sweep speed and ease to use functionality suited for detecting analog, digital, deceptive, and anomalous rogue transmissions across a wide frequency range.

- **RF emissions analysis**
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- **Site Surveys for communications systems (all bands, microwave links, etc.)**
- **Wireless service providers and installers**
- **Security surveys for eavesdropping detection**

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

The OSCOR Green is lightweight (9.6 lbs./4.4 kg), small and hand-held for easy mobility through target areas. Portability

**SEAMLESS SPECTRUM VISIBILITY**

Built-in Auto-Switching Multi-Antenna System

LIMITS ANTENNA RANGE OR FROM HAVING TO SWITCH EXTERNAL ANTENNAS.

**CAPTURES COMPREHENSIVE SIGNAL ACTIVITY**

without missing signals due to limited antenna range or from having to switch external antennas.

**3** BUILT-IN 10 dB PRE-AMP

**2** MULTIPLE PASS SIGNAL LIST CREATED IN SECONDS

**1** FM wideband

**2** AM narrowband

**3** Video: 12.75 MHz, 6.375 MHz

**1** Audio: 200 kHz, 12.5 kHz, 6.25 kHz, 2 kHz

**1** NTSC, PAL, SECAM

**2** Video demodulation displayed within screen

**3** Audio demodulation of radio-modulated video signals

- **Directional Antenna**
- **Remote Operation Using VNC**

Remote Operation Using VNC

The optional port allows remote access to the OSCOR Green. This functionality offers the flexibility to remotely monitor a sweep in progress.

**Zoom to a frequency range while continuing full peak capture**

**Persistence display**

Persistence display traces a display graphic with varying color brightness based on the persistence of signals. This provides the ability to determine if multiple signals occupy the same frequency bands.

**Signal List Generation**

The OSCOR Green collects peak trace data and then generates a signal list from the peak trace data. Moreover, the OSCOR Green can subtract a reference trace from a target sweep trace and create a signal list unique to the target area.

**Signal List Generated from Trace Data**

**Multiple Pass Signal List Created in Seconds**

**Logs Intermittent Signals**

**Signal Analysis and Location**

**Correlation & Ranging**

**MASSING** combines fast trace traces to Peak traces to log newly detected signals over time **MERGE** combines 2 peak traces into 1.
MARKETING CHARACTERISTICS

SPECTRUM ANALYZER

RF SYSTEM

Frequency:
- 8 GHz Model (OGR-8): 10 kHz - 8 GHz
- 24 GHz Model (OGR-24): 10 kHz - 24 GHz

Sensitivity/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:
- 800 kHz, 200 kHz, 12.5 kHz, 6.25 kHz, 2 kHz

Subcarrier Filters:
- 6.25 kHz, 12.5 kHz, 200 kHz

VIDEO SYSTEM

Formats:
- NTSC, PAL, SECAM

Demodulation:
- AM, FM

Filter Sizes:
- 12.75 MHz, 6.375 MHz

Subcarrier Filters:
- 6.25 kHz, 12.5 kHz, 200 kHz

ANTENNA SYSTEM

Built-in Auto Switching Antenna System:
- Frequency:
  - 8 GHz Model (OGR-8) = 10 kHz (useable) to 8 GHz
  - 24 GHz Model (OGR-24) = 10 kHz (useable) to 24 GHz

INPUTS/OUTPUTS

Aux RF In:
- 10 kHz to 8 GHz

IF Out:
- 25 MHz wide centered at 75 MHz

Baseband Out:
- DC – 6 MHz

Expansion:
- Aux Control Port for MPP

REMOTE CAPABILITY

Ethernet Port
- for VNC remote access

USER INTERFACE

Integrated Touch Screen with 8.4” Display
- Soft Keys and Rotary Optical Encoder
- USB Ports (A type): for peripherals (keyboard, mouse)

POWER SUPPLY

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

Removable Battery:
- Rechargeable Lithium ion, 4-hour runtime (typical)

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

Loaded Case Weight:
- 21.0 lbs (9.5 kg)

Operating Temperature:
- 0° C to +50° C

ADVANTAGES

FULL 24 GHz COVERAGE
- Sweeps from 10 kHz to 24 GHz at 12.2 kHz steps in less than 1 second with integrated auto-switching antenna system

TRACE ANALYSIS
- Quickly locates RF signals
- Provides powerful analysis of RF signals

COMPLETE PACKAGE
- Quickly locates RF signals
- Portable design minimizes set up time when moving from site to site

TRAINING BY REI INSTRUCTORS
- REI operates the largest commercially available technical security training facility in the world. On-site training also available.
- Course dates and registration available online at www.reiusa.net

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**MARKETING CHARACTERISTICS**

**SPECTRUM ANALYZER**

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- **Frequency:**
  - 8 GHz Model (OGR-8): 10 kHz - 8 GHz
  - 24 GHz Model (OGR-24): 10 kHz - 24 GHz
- Sensitivity/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: 800 kHz, 200 kHz, 12.5 kHz, 6.25 kHz, 2 kHz

**VIDEO SYSTEM**
- Formats: NTSC, PAL, SECAM
- Demodulation: AM, FM
- Filter Sizes: 12.75 MHz, 6.375 MHz

**ANTENNA SYSTEM**
- Built-in Auto Switching Antenna System:
  - Frequency:
    - 8 GHz Model (OGR-8): 10 kHz (useable) to 8 GHz
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- INPUTS/OUTPUTS:
  - Aux RF In: 10 kHz to 8 GHz
  - IF Out: 25 MHz wide centered at 75 MHz
  - Baseband Out: DC – 6 MHz
  - Expansion: Aux Control Port for MPP

**REMOTE CAPABILITY**
- Ethernet Port for VNC remote access

**USER INTERFACE**
- Integrated Touch Screen with 8.4" Display
- Soft Keys and Rotary Optical Encoder
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**POWER SUPPLY**
- Universal Power Supply included: 100-240 VAC, 50-60 Hz
- Removable Battery:
  - Rechargeable Lithium ion, 4-hour runtime (typical)

**EXTERNAL STORAGE CAPABILITY**
- Compact Flash (CF) Slot
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- Dimensions: 11.5 in x 13.2 in x 3.0 in (29.2 cm x 33.5 cm x 7.6 cm)
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- Operating Temperature: 0° C to +50° C

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