

RAPTOR RXi

Ultra-fast scanning Countersurveillance Receiver



FEATURES

- Scans 26GHz in less than 4 seconds at 1Hz resolution (approximately 100,000,000 samples per second)
- Full span spectrum analyzer display, 6GHz, 10GHz and 26GHz models available
- Full span waterfall display for analysis of signals over time
- Dedicated ultra wideband (UWB) receiver detects signals impossible to find with conventional receiver (optional)
- High resolution 15" colour touch screen with 'drag' & 'move' controls
- Signal logging facility saves spectrum analyzer 'snapshot' of brief signals
- Remote operation by means of Ethernet
- Built-in auto switching antenna system 10kHz to 26GHz

APPLICATIONS

- Government sweep teams for internal and external security
- Radio monitoring by regulatory government authorities
- RF environment monitoring and interference management
- Monitoring all incoming and outgoing signals from military bases
- Professional sweep teams (TSCM)
- Detecting all types of RF electronic surveillance devices
- Presidential State Security



TECHNICAL SPECIFICATIONS

Receiver

Frequency Range	10kHz – 6GHz 10kHz – 10GHz 10kHz – 26GHz
Tuning Resolution	1Hz
IF Bandwidth	6kHz, 15kHz, 30kHz 110kHz, 220kHz
Sensitivity	-110dBm
DANL	-100dBm
System Phase Noise	-90dBc at 10kHz
Attenuation	0dB to -31.5dB in 0.5dB steps
Dynamic Range	90dB (SFDR: 80dB)

Spectrum Analyzer

Frequency Range	10kHz – 6GHz 10kHz – 10GHz 10kHz – 26GHz
Sampling Resolution	3kHz
Sampling Bandwidth	20MHz
Sensitivity	-110dBm at 3kHz Sampling Resolution
Scan Time	>6GHz/sec

Video Demodulation

Formats	PAL, NTSC, SECAM
Modulation types	AM, AM inverted FM, FM inverted

Processing

Processor	Intel Core 2 Duo
Display	15" Colour LCD with Touchscreen
Operating System	Windows 7

Display Modes

Full Bandwidth Spectrum Analyzer, Full Bandwidth Waterfall Display, Spectrum Zoom, Signal Logging Display

Inputs/Outputs

Aux RF, 2 USB ports as standard, Serial Mouse / Keyboard Input, Monitor Output, Ethernet

Dimensions & Weights

Dimensions	375mm x 360mm x 130mm
Weight	Approx 8Kg

Operating Temperature

0° C to + 50° C

Power Supply

Universal Power Supply	90-264VAC, 47-63Hz
Size	65mm (D) x 37.5mm (H) x 169mm (W)

Battery

Slot-in Rechargeable Lithium Ion Smart Battery	
Size	22.3mm (H) x 285mm (L) x 58.9mm (W)
Weight	700g
Battery Life	Approx.90 minutes

Charger (supplied with optional Accy Case)

Desktop Smart Charger	90-260VAC, Output: 12V, 2.5A DC
Size	58.0mm (H) x 180mm (L) x 92.0mm (W)
Weight	235g (excluding power supply)

ACCESSORY CASE (optional)

Accy case includes
Directional Log
Periodic Probe
Antenna, Tone Box,
Spare Li-ion Battery
& Smart Battery
Charger

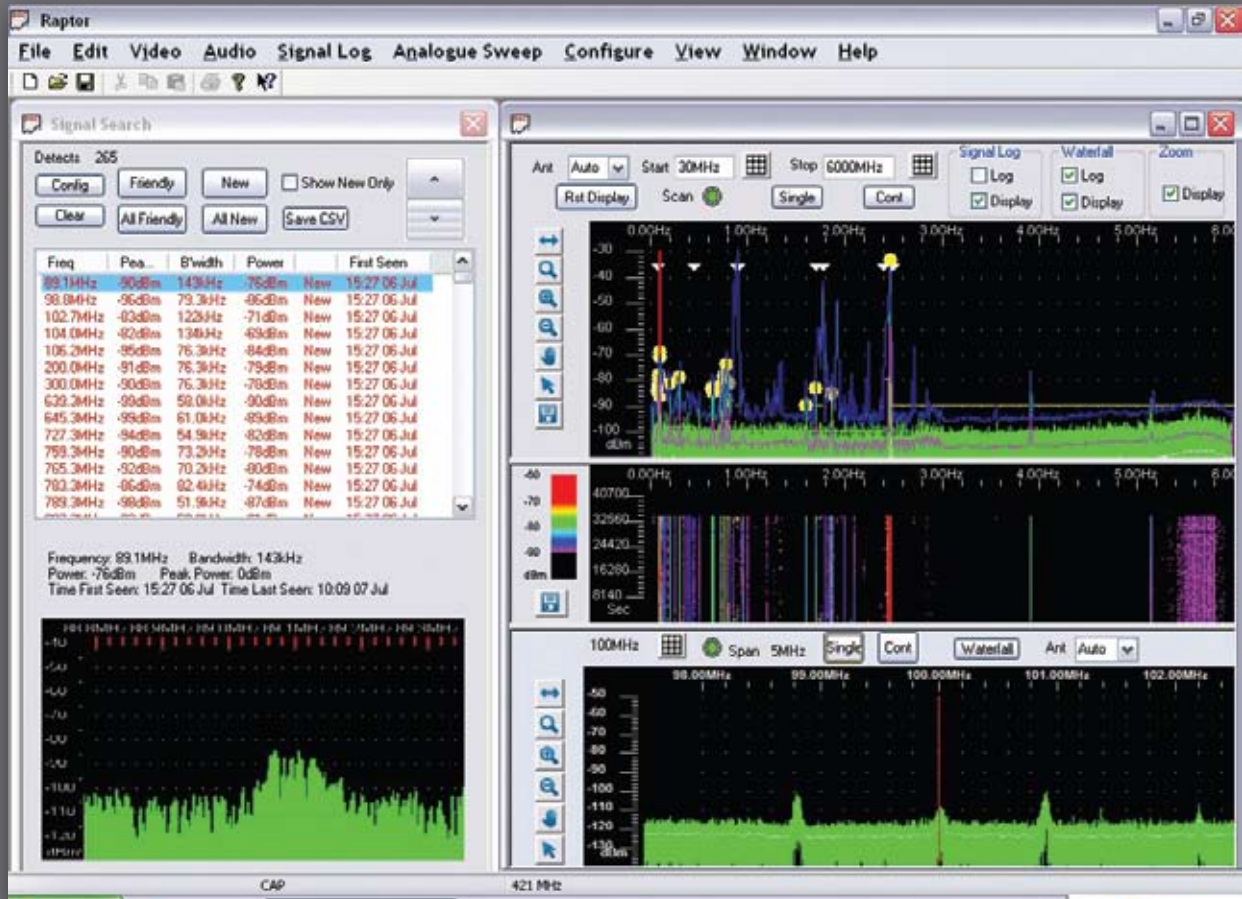


PROBE ANTENNA

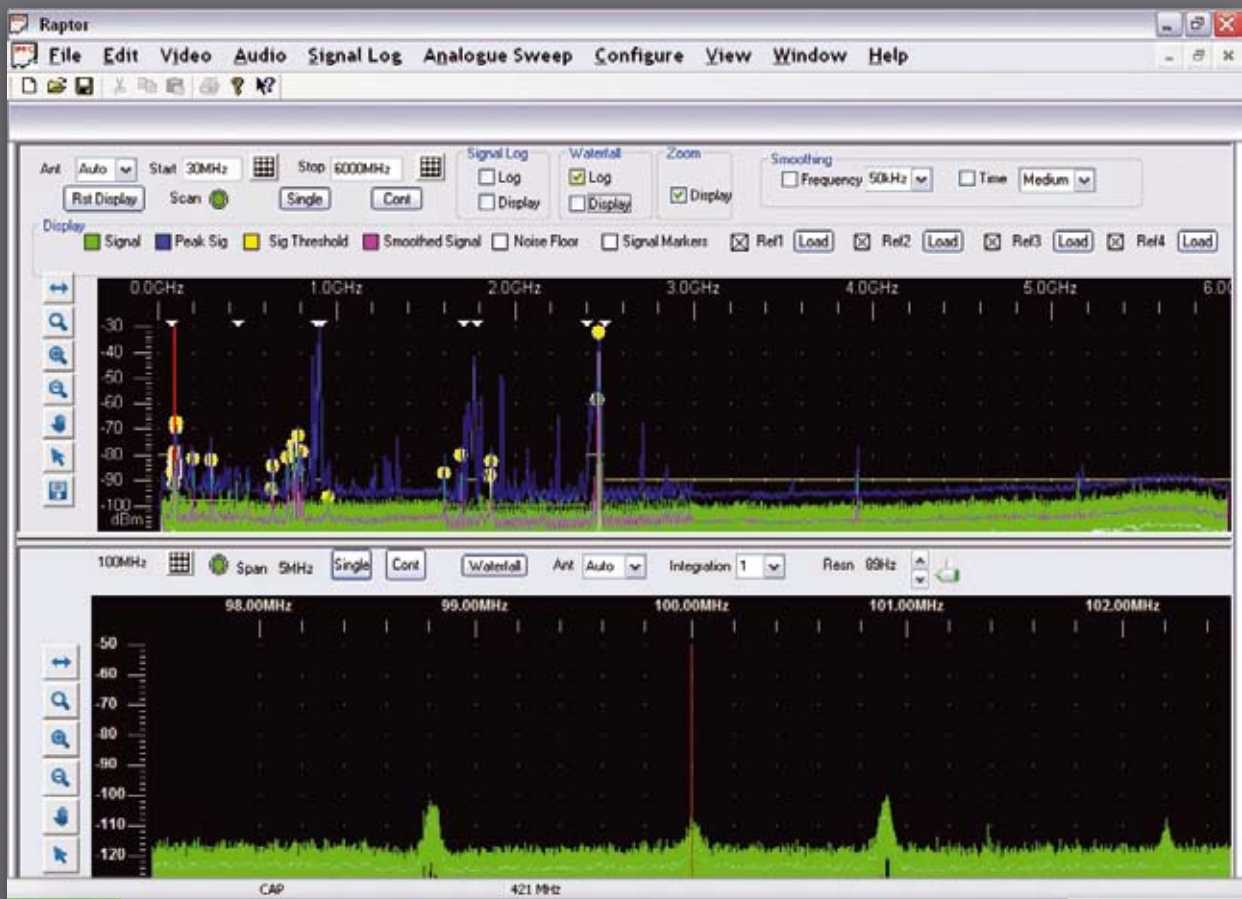


Directional Log Periodic
Probe Antenna for locating
digital transmissions

SCREENSHOTS



15" display allows clear display of signal lists, waterfall display, spectrum analyzer and zoom windows.



Clear Graphical display of full spectrum analyzer bandwidth, 6GHz, 10GHz or 26GHz (depending on model)

The Raptor RXi is an ultra-fast-scanning counter-surveillance receiver for quickly detecting surveillance transmitters. The RXi scans from 10kHz to 26GHz in under 4s, detecting even the briefest pulsed transmissions. Featuring a fast Core 2 Duo processor, its multiple software tools and demodulators detect frequency-hopping, burst mode and spread spectrum devices as well as analogue audio and video signals.

Two spectrum analyser windows allow the user to simultaneously view the whole spectrum and zoom in on individual frequencies. The 'Waterfall' display mode gives an intuitive display of signals over time.

Modern ultra wideband (UWB) spread spectrum devices are challenging for a conventional receiver to detect. Its integrated, dedicated UWB receiver allows the RXi to detect such devices easily.

The RXi is designed as a portable device, allowing reference scans to be easily run in different areas of a building. Using its built-in Ethernet port, the RXi can be operated remotely, allowing sites to be continuously monitored without the need for a site visit.

The RXi is fully portable, operating either from an internal rechargeable battery or an external supply. Its integrated antenna system provides excellent wideband performance from 10kHz to 26GHz.

TECHNOLOGY

The receiver uses an analogue front end, combined with software filtering and demodulation to provide the best combination of fast scan speed and receiver performance.

The user interface has been carefully designed to be simple and intuitive; the spectrum analyzer display shows the entire spectrum in one graphical window with the facility to zoom in on areas of interest. A separate zoom window allows the user to simultaneously look at areas of the spectrum in high-resolution mode. Displays spectrum as a list or graphically. Facility to compare lists or graphs sampled in different locations, plus allows user to zoom over the spectrum without any interruption at even 20MHz. ■

PRODUCT CODES

RAPTOR RXi Countersurveillance Receiver - Full Systems

- 3-299-020** RAPTOR RXi 6GHz- Full system and accessories with signal processing software, video demodulation, built-in auto switching antenna system, high resolution 15" touch screen display with 'drag' & 'move' controls, Internal Li-ion rechargeable battery, universal power supply 90-264VAC, power cable, protective soft carry case & Guidance Manual
- 3-299-021** RAPTOR RXi 10GHz- Full system and accessories with signal processing software, video demodulation, built-in auto switching antenna system, high resolution 15" touch screen display with 'drag' & 'move' controls, Internal Li-ion rechargeable battery, universal power supply 90-264VAC, power cable, protective soft carry case & Guidance Manual
- 3-299-022** RAPTOR RXi 26GHz- Full system and accessories with signal processing software, video demodulation, built-in auto switching antenna system, high resolution 15" touch screen display with 'drag' & 'move' controls, Internal Li-ion rechargeable battery, universal power supply 90-264VAC, power cable, protective soft carry case & Guidance Manual

RAPTOR RXi Countersurveillance Receiver - Accessories & Upgrades

- 3-299-023** Ultra Wideband Receiver Module (built-in) designed specifically for detecting ultra wideband transmission based on multiband OFDM
- 3-299-024** Accessory case including Directional Log Periodic Probe Antenna with SMA connector, 8M SMA cable, tone box (1), tone box antenna, spare Li-ion rechargeable battery, smart battery charger 100/240V all housed in protective soft pouch including machined foam insert (Accy Pouch can be attached to the side of main Raptor case)
- 3-299-025** Spare Slot-in Rechargeable Lithium Ion Smart Battery
- 3-299-026** Desktop smart charger: 90-260VAC, Output: 12V, 2.5A DC
- 3-299-048** Tone Box with antennae
- 3-299-995** GSM196 Cellular Detector can detect both 2G (GSM900/1800) and 3G (WCDMA / UMTS 2100) with cadenced vibration alert and latched alarm
- 3-299-993** GSM196A Cellular Detector can detect both 2G (GSM850/1900) and 3G (WCDMA / UMTS 2100) with cadenced vibration alert and latched alarm

The RAPTOR RXi can be controlled and monitored over an internet connection.



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