

# SeeHawk™ Monitor



POLICE



FIRE



EMS



BUSINESS CRITICAL  
/ LIFE SAFETY



UTILITIES & CRITICAL  
INFRASTRUCTURE



**COMING SOON!**  
Monitor 4G/5G  
network downlink  
performance

## SPECTRUM MONITORING FOR CRITICAL COMMUNICATIONS

- Monitor RF spectrum for noise and interference
- Detect and characterize service-impacting issues
- Real-time spectrum analyzer

## AUTOMATED IN-BUILDING UPLINK TESTING

- Enhances the PCTEL® Public Safety Network Testing Solution
- Grid-based coverage testing for local code compliance
- Network commissioning and FCC compliance testing



**MADE IN THE USA**  
of U.S. and imported parts



# One System – Two Applications

## SPECTRUM MONITORING

Save time and improve network quality by immediately detecting interference issues and captured spectrum data with SeeHawk™ Monitor.

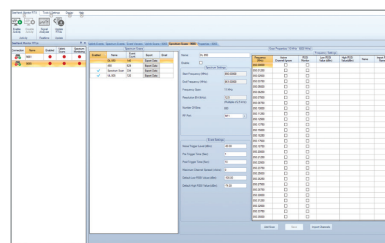
- Continuously monitor spectrum across multiple radio sites
- Rapidly detect under-detected service impacting problems
- Characterize the potential source of the problem
- Troubleshoot with real-time spectrum analysis
- Easily manage Remote Test Units (RTUs) from one software platform

## How Spectrum Monitoring Works



### 1 CONFIGURE

User configures Remote Test Unit (RTU) monitoring, including noise thresholds and other parameters in the SeeHawk Monitor Platform Manager software



### 2 MEASURE

RTU located at site detects spectrum anomaly on the network (*noise floor rise, intermittent spike, etc.*), records and sends event data to Platform Manager via the cloud



Recorded events



### 3 NOTIFY

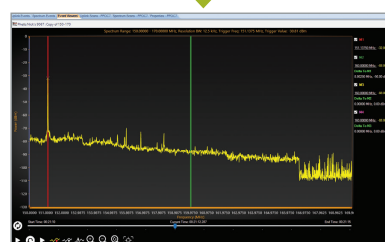
Platform Manager notifies the user of new events via email

Event ID	Site Name	RTU Name	RTU Type	RTU Location	Frequency (MHz)	Power (dBm)	Duration (s)	Event Type
1	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
2	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
3	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
4	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
5	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
6	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
7	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
8	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
9	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise
10	Site 1	RTU 1	RTU 1	RTU 1	192.1	-100	10	Noise Floor Rise



### 4 REPLAY

User replays event in Platform Manager with spectrum analyzer for analysis



Event replay and real-time spectrum analysis



### 5 INVESTIGATE

Real-time spectrum analysis aids in identifying ongoing issues

# AUTOMATED IN-BUILDING UPLINK TESTING

SeeHawk™ Monitor's uplink testing feature makes it easy to ensure in-building systems meet critical communications coverage requirements and are commissioned correctly to avoid interference with the outdoor radio network.

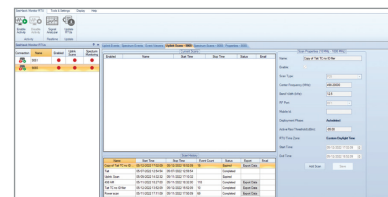
- Automate two types of tests: **grid-based coverage and in-building system commissioning**
- Verify compliance with FCC regulations, NFPA and IFC model codes, and locally enforced codes
- Prevent interference with the outdoor network before it happens
- Objectively measure P25 uplink signal quality (BER and SINR) and channel power for any technology
- Easily schedule testing for multiple radio sites on the SeeHawk™ Monitor Platform Manager

## How Uplink Testing Works



### 1 PREPARE

Remotely schedule uplink testing on SeeHawk Monitor (*no on-site support required*)



### 2 TAP & TALK TO TEST UPLINK

A single technician conducts on-site testing with the PCTEL® Public Safety Network Testing Solution and creates the uplink test signal with a test radio



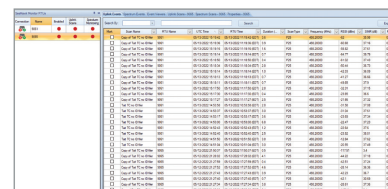
### 3 RECORD

Remote Test Unit at radio site automatically measures the uplink signal, records the results, and sends data back to Platform Manager



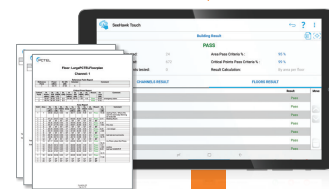
### 4 EXPORT DATA

Authorized user exports uplink data from Platform Manager to the PCTEL Public Safety Network Testing Solution

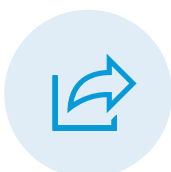


### 5 REPORT

SeeHawk® Touch automatically synchronizes data from SeeHawk Monitor and generates reports



Generate reports in real-time or on demand with user-customizable pass-fail criteria, by building, by floor, or by channel.



### 6 SHARE (OPTIONAL)

Users share and track grid test results online with the SeeHawk™ Central cloud platform



# SeeHawk™ Monitor System

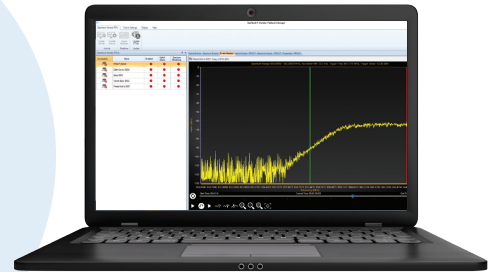
## AT A GLANCE



Remote Test Units (RTUs) installed at each radio site monitor spectrum and send data to Platform Manager.



Internet Connection



Platform Manager software remotely configures RTUs, schedules uplink testing and interference monitoring, and reports test results and interference problems.

## COMPLETE YOUR SOLUTION

Gain visibility and insight into your wireless network with real-world data and easy-to-use testing solutions.

### Public Safety Network Testing Solution

Verify and document critical communications coverage



### SeeWave® Interference Locating System

Accelerate interference hunting for improved network performance



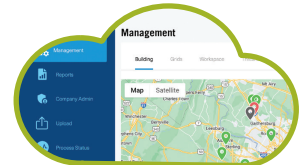
### CW Transmitter (OP712) 23.5 MHz – 6 GHz

Portable CW transmitter for CW testing and commissioning tests



### SeeHawk™ Central

Cloud reporting and automation platform for grid-based in-building critical communications network testing



## Solving Complex Wireless Challenges

PCTEL is a leading global provider of wireless technology solutions, including purpose-built Industrial IoT devices, antenna systems, and test and measurement products. Trusted by our customers for over 25 years, we solve complex wireless challenges to help organizations stay connected, transform, and grow.



PCTEL, Inc.

T: +1 301 515 0036 | [pctel.com](http://pctel.com) | NASDAQ: PCTI

For more information on SeeHawk™ Monitor, contact your sales representative or visit [pctel.com/monitor](http://pctel.com/monitor)