

# PUBLIC SAFETY NETWORK TESTING SOLUTION

Verify and Document Critical Communications Coverage



POLICE



FIRE



EMS



BUSINESS CRITICAL  
/ LIFE SAFETY



CELLULAR



WiFi

## In-Building Coverage Testing, Commissioning, and Code Compliance

- Streamline grid-based testing to meet NFPA 1221, IFC 510, and local code requirements
- Commission FCC-compliant Business Critical and Emergency Responder Communications Enhancement Systems (ERCES)
- Verify P25 uplink performance automatically during grid, drive, and walk tests
- Test in-building or outdoor signal quality across multiple LMR, cellular, and WiFi networks
- Automatically generate real-time pass/fail results and printable reports



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



# Automated Testing Saves Time & Money

## PREPARE. MEASURE. REPORT. IT'S THAT EASY.

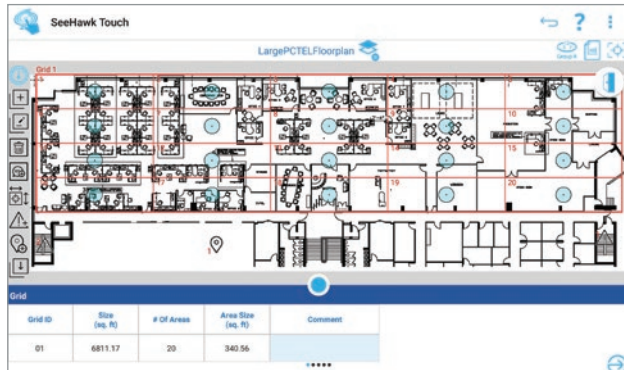
Replace manual processes and ensure critical communications coverage with the PCTEL® Public Safety Network Testing Solution. Our streamlined grid-based testing tool makes it easy to meet or enforce local building codes for Emergency Responder Communications Enhancement Systems (ERCES). The simple pass/fail grading system is also a great way to ensure coverage for cellular, WiFi, life safety, and business critical radio networks.



### 1 PREPARE

#### Create grids and set up tests

- Schedule uplink testing with kit at radio site or with SeeHawk™ Monitor (optional)
- Prepare test plans remotely in SeeHawk™ Central cloud platform or locally on your tablet
- Import a floorplan, add and adjust grids
- Identify test locations and critical test points
- Select frequencies
- Configure pass/fail criteria



- ▲ Automatically identify test locations with easy-to-use grid creation tools that rotate to fit your floorplans.



Planning Tool

SeeHawk® Touch

- ▲ Planning tool integration enables you to easily import floor plans and export test data.

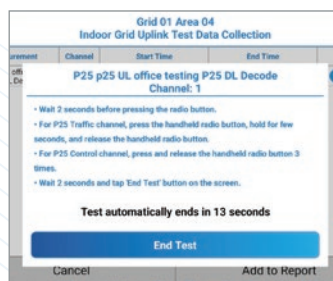
### 2 MEASURE

#### Execute tests and grade by threshold

Grid ID	Area #	Channel	Band	Frequency (MHz)	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	DL BER (%)	DL Signal Power	DL DAQ	UL Power (dBm)	UL S/N (dB)	UL FBER (%)	UL BER (%)
01	01	5330	EB 14: Upper 700...	763.00000	-79.79	6.51			-108.12	4.6	-65.00	28.00		
01	01	1	WiFi Band	2412.00000	-57.00									
01	01	1	300 p25 germant...	380.12500	-64.03	37.21	0.00			4.7	-60.00	28.00	0.00	
01	01	1	DMR	452.25000	-119.36					4.8	-62.00			
01	01	1	TETRA	870.17500	-103.94					4.5	-55.00			

- Measure all bands, technologies, and channels simultaneously
- Objectively measure signal quality (BER and SINR)
- Test channel power for any technology

#### Automated Uplink Testing



- ▲ Initiate uplink test at each grid location in SeeHawk Touch



- ▲ SeeHawk™ Monitor automatically measures uplink at the radio site

“We did the coverage testing in about 25% of the time planned.”

– Jason Chambers, Day Wireless Area Service Manager

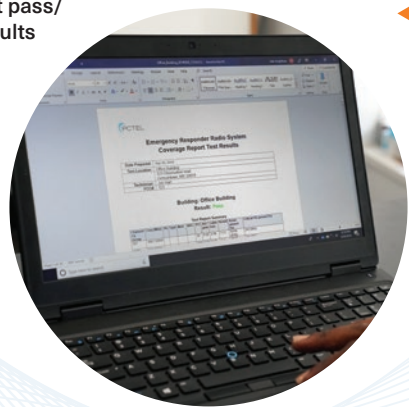
### 3 REPORT

#### Auto generate real-time results and submittable reports with one tap

- Synchronize uplink data from uplink test kit at radio site or from SeeHawk™ Monitor Platform Manager
- Automatically upload to SeeHawk™ Central cloud platform for collaboration and reporting
- Automatically incorporate uplink and equipment room test results
- Customize pass/fail criteria on multiple reports to meet local government or business requirements
- Save printable reports within minutes, locally or on SeeHawk Central

CHANNELS RESULT		FLOORS RESULT	
FLV 28 - 627	Pass		
FLV 27 - 627	Pass		
FLV 26 - 627	Pass		
FLV 25 - 627	Pass		
FLV 24 - 627	Pass		
FLV 23 - 627	Pass		
FLV 22 - 627	Pass		

Instant pass/fail results



Save as Excel or Word document

## GET EVEN MORE DONE, FASTER

PCTEL's Public Safety Network Testing Solution includes additional tools that streamline testing throughout your project lifecycle.



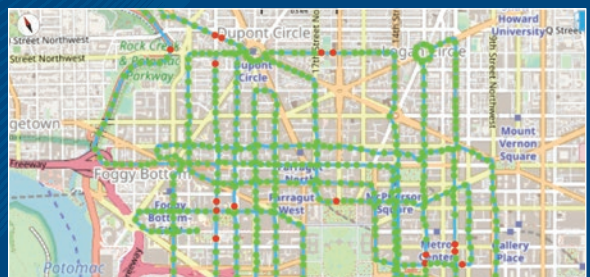
Indoor walk testing: detailed data for DAS and small cell network design, baseline testing and optimization. Supports automated uplink testing with SeeHawk Monitor system.



Spectrum Analysis mode for troubleshooting and equipment room work, right on your tablet.



Antenna Verification Tool (optional): fast troubleshooting during the DAS and small cell commissioning process.



Outdoor mode (optional): drive and walk testing for cellular and LMR networks with automatic GPS mapping. Supports automated uplink testing with SeeHawk Monitor system.

# SeeHawk™ Central

## CLOUD REPORTING AND AUTOMATION PLATFORM FOR GRID-BASED NETWORK TESTING

SeeHawk Central extends the capabilities of SeeHawk® network testing solutions with time-saving workflows and anytime, anywhere access to all your grid-based data.

### Planning and Workflow Automation

- Set up and plan tests in the office
- Schedule reminders for testing, re-testing, and approval dates
- Download test plans to SeeHawk® Touch
- Automatically upload test results to Central
- Manage test results by type: Baseline, Intermediate, Final, and Annual
- Review and approve test results online



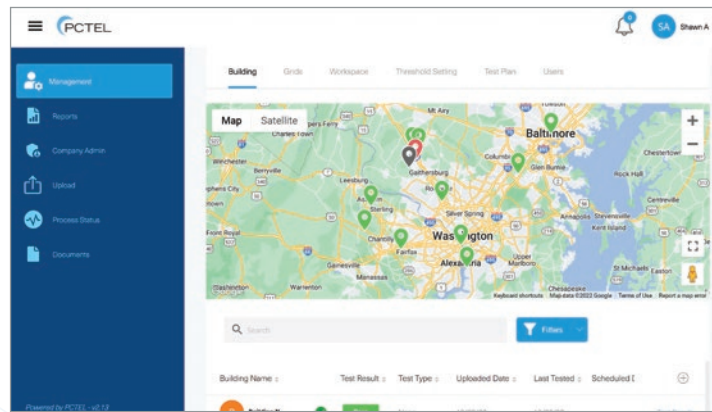
▲ Data upload from SeeHawk® Touch to SeeHawk Central

### Cloud-Based Data Repository

- Centralized access to all your organization or jurisdiction's data
- Locate buildings on an easy-to-use map-based interface
- View historical data and compare results

### Fast, Secure Data Sharing

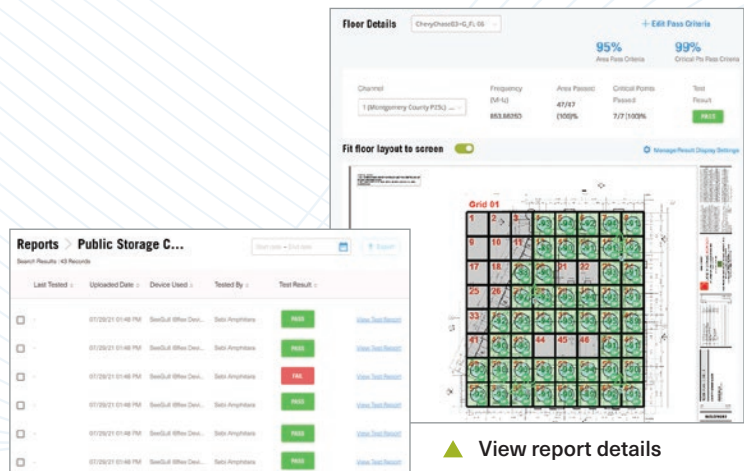
- Share instantly with customers, jurisdictions or across teams
- Create secure individualized logins for team members and stakeholders
- Submit test plans and results instantly to AHJs and public safety radio system managers



▲ SeeHawk Central

### Instant Reporting

- View and generate test reports online for submission
- Create multiple test reports with different criteria or tested channels from the same test
- Summarize and track data by property owner, company, jurisdiction, tester, office, or technology



▲ View report details

▲ Access historical data

# User Benefits

With SeeHawk Central, it's easier to test, manage, share data, and evaluate in-building critical communications, WiFi, and cellular networks.

## System Integrators and Testing Services

- Save time and improve workflows
- Securely share data with customers, team members, and jurisdictions
- Manage all of your tests in one place
- Impress customers with value-added reporting
- Generate more business



## AHJs (Authorities Having Jurisdiction) and Radio System Managers

- Simplify code enforcement
- Access all ERCES (Emergency Responder Communication Enhancement System) grid test data in one platform
- Track all of your jurisdiction's buildings
- View data and summary reports in a specialized dashboard
- Integrate with your existing systems



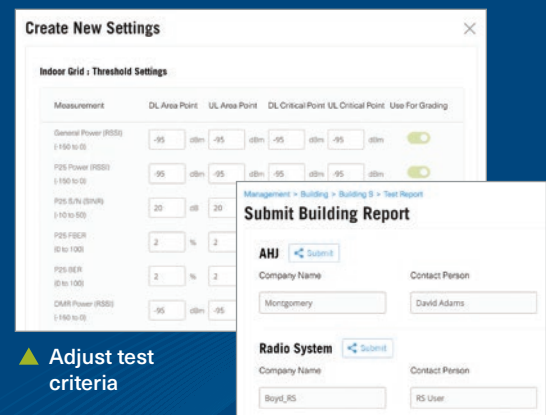
## Building Owners

- Accelerate building code approvals
- Track retesting dates
- Verify critical communications, WiFi, and cellular coverage
- Manage all nationwide properties in one platform
- Find service providers in your area

# COLLABORATE WITH PUBLIC SAFETY OFFICIALS

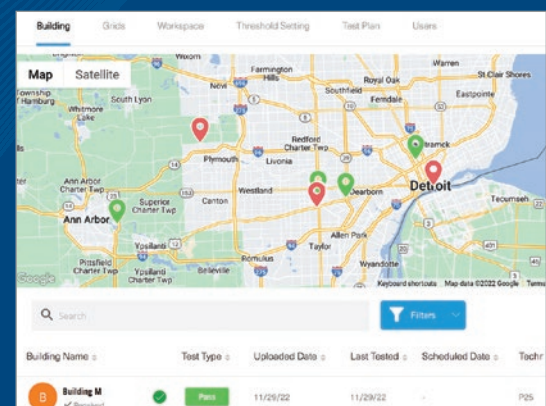
## Work Together for a More Efficient Code Approval Process

- AHJs and Radio System Managers **distribute channel and test criteria**
- Testers **send test plans and results** to the local AHJ or Radio System Manager
- AHJs and Radio System Managers **review and approve** test plans and results
- All parties share schedules and **track due dates** together
- AHJs and Radio System Managers receive **FREE SeeHawk Central accounts\***



▲ Adjust test criteria

▲ Submit results to AHJs and Radio System Managers



▲ AHJs and Radio System Managers receive results instantly

\*Paid SeeHawk Central subscription required to upload test results

## Critical Communications Testing: Public Safety, Life Safety, Business Critical

PCTEL's Public Safety Network Testing Solution combines the precision measurement capabilities of the IBf/ex® scanning receiver with our tablet-based SeeHawk® Touch software. Choose the kit and options that meet your testing needs.

"I'm able to do my on-site pre-walks in half or even one-third of the time as before when I had to do a more manual walk through the building to record every single frequency."

– Joseph Rohlic Program Manager and Director of Construction Services at Radio One



Kits	IBf/ex® Scanning Receiver	SeeHawk® Touch Software	Accessories
	<b>Lightweight multi-band, multi-technology radio receiver with Bluetooth® connectivity</b>	<b>Data collection, spectrum analysis, and reporting tools on an Android™ tablet</b>	
<b>Public Safety Network Testing Solution – In-Building P25, DMR, or TETRA</b>	<ul style="list-style-type: none"> <li>• Measure all frequencies 10 MHz - 1 GHz</li> <li>• P25, DMR, or TETRA downlink signal decoding</li> <li>• 5-Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Grid test radio channel power (any technology)</li> <li>• Grid test P25, DMR, or TETRA signal quality (SINR and BER)</li> <li>• Grid test uplink (2nd kit with uplink or SeeHawk™ Monitor system required at radio site)</li> <li>• Grid test noise channel power</li> <li>• Equipment room test</li> <li>• Indoor walk test</li> <li>• Signal Analyzer</li> </ul>	<ul style="list-style-type: none"> <li>• Android™ tablet</li> <li>• Battery pack</li> <li>• Back or side pack</li> <li>• Walk test antennas</li> <li>• Carrying case</li> <li>• A/C charger</li> </ul>
<b>Public Safety Network Testing Solution – In-Building P25 &amp; ATT-VZW-TMO</b>	All P25 kit features, plus: <ul style="list-style-type: none"> <li>• Decode 4G LTE</li> <li>• All Verizon, T-Mobile, AT&amp;T and CBRS LTE bands</li> </ul>	All P25 kit features, plus: <ul style="list-style-type: none"> <li>• Grid test LTE signal quality</li> </ul>	
<b>Public Safety Network Testing Solution – P25 &amp; Cellular</b>	All P25 kit features, plus: <ul style="list-style-type: none"> <li>• All cellular bands 10 MHz - 6 GHz</li> <li>• Decode all 2G, 3G and 4G cellular technologies</li> </ul>	All P25 kit features, plus: <ul style="list-style-type: none"> <li>• Grid test LTE and UMTS/WCDMA signal quality</li> <li>• Outdoor mode for drive test</li> <li>• Antenna Verification Testing (AVT)</li> </ul>	All P25 or TETRA kit features, plus: <ul style="list-style-type: none"> <li>• Vehicular rooftop antennas</li> <li>• Car charger</li> </ul>
<b>P25 Uplink (add-on option for 2nd kit connected to radio site)</b>	<ul style="list-style-type: none"> <li>• Single P25 traffic channel uplink signal decoding</li> <li>• Uplink channel power (any technologies, multiple channels)</li> </ul>	<ul style="list-style-type: none"> <li>• Test P25 uplink traffic channel signal quality (SINR and BER) – one channel per kit</li> <li>• Automatically synchronizes measurements with grid-based testing, walk testing, drive testing and reporting on primary kit</li> </ul>	<ul style="list-style-type: none"> <li>• Use SeeHawk™ Monitor instead for multi-channel uplink</li> </ul>
<b>Additional options</b>	<ul style="list-style-type: none"> <li>• Decode DMR, P25, TETRA, WiFi, 5G NR, NB-IoT, LTE-LAA, or LTE MIMO technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Additional software licenses for planning and reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Certification training</li> <li>• CW transmitter</li> <li>• Additional batteries</li> </ul>

## 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 29 years, we solve complex wireless challenges to help organizations stay connected, transform, and grow.

For more information on Public Safety Network Testing, contact your sales representative or visit [pctel.com/public-safety-testing-solution](https://pctel.com/public-safety-testing-solution)



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