

# PUBLIC SAFETY NETWORK TESTING SOLUTION

Verify and Document Critical Communications Coverage



## Grid-Based Testing and Reporting

- Ensure in-building coverage for First Responders and Business Critical communications
- Simultaneously test coverage and signal quality across multiple LMR and cellular networks
- Comply with NFPA 1221, IFC 510, and local code requirements
- Automatically generate real-time pass/fail results and printable reports
- Streamline the building approval process



# AUTOMATED TESTING SAVES TIME & MONEY

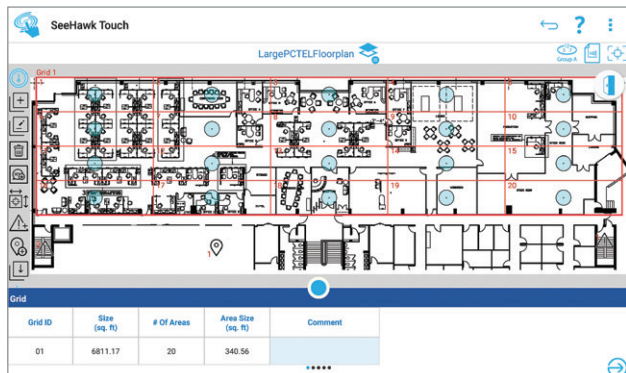
## Prepare. Measure. Report. It's That Easy.

Replace manual processes and ensure critical communications radio 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 Radio Responder Coverage (ERRC). The simple pass/fail grading system is also a great way to ensure coverage for life safety and business critical radio networks.

### 1 PREPARE

#### Create grids and set up tests

- Import a floorplan
- Add grids per floor
- Identify test locations and critical test points
- Select frequencies
- Configure pass/fail criteria



▲ Easy-to-use grid creation tools automatically identify test locations.



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

- Test multiple channels, bands, and technologies with a simple tap
- View pass/fail results in real time

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 700L	763.000000	-79.79	6.51			-108.12	4.6	-55.00	28.00		
01	01	1	300 p25 germant...	380.125000	-64.03	37.21	0.00			4.7	-60.00	28.00	0.00	
01	01	1	DMR	452.250000	-119.36					4.8	-62.00			
01	01	1	EDACS	380.125000	-65.33					4.7	-60.00			
01	01	1	TETRA	870.175000	-103.84					4.5	-55.00			

LMR (P25, DMR, etc.)



Automated signal quality measurements provide objective equivalents to Delivered Audio Quality (DAQ)

Incorporate DAQ and uplink measurements for automated reporting

LTE/FirstNet





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

– Jason Chambers, Day Wireless Area Service Manager

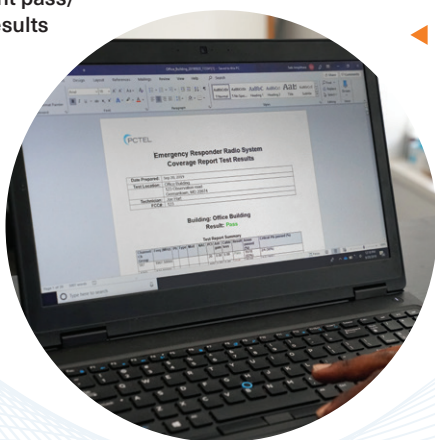
### 3 REPORT

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

- Reports can be generated in real-time for building, by floor or by channel
- Save printable reports within minutes
- Customize pass/fail criteria to meet local government or business requirements
- Create multiple reports from one test

Building Result			
		<b>PASS</b>	
Number of floors tested:	24	Area Pass Criteria %:	95 %
Number of areas tested:	672	Critical Points Pass Criteria %:	99 %
Number of critical points tested:	0	Result Calculation:	By area per floor
CHANNELS RESULT		FLOORS RESULT	
Floor Plan		Result	More
<input checked="" type="checkbox"/>	FLV 28 - 6207	Pass	
<input checked="" type="checkbox"/>	FLV 27 - 6207	Pass	
<input checked="" type="checkbox"/>	FLV 26 - 6207	Pass	
<input checked="" type="checkbox"/>	FLV 25 - 6207	Pass	
<input checked="" type="checkbox"/>	FLV 24 - 6207	Pass	
<input checked="" type="checkbox"/>	FLV 23 - 6207	Pass	
<input checked="" type="checkbox"/>	FLV 22 - 6207	Pass	

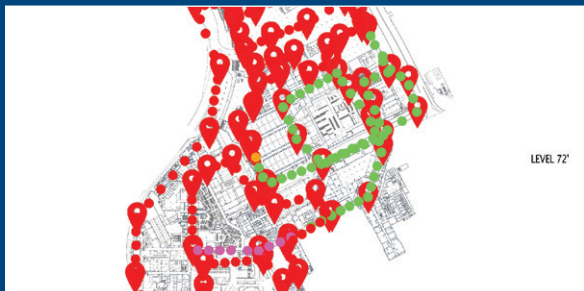
Instant pass/fail results



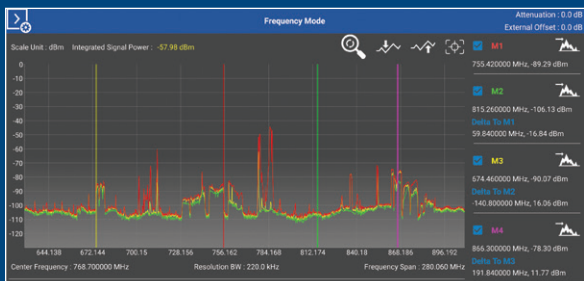
Save as Excel or Word document

## GET EVEN MORE DONE, FASTER

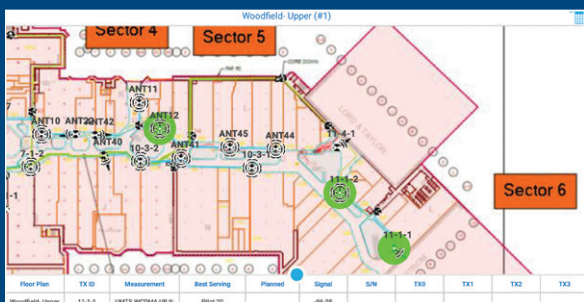
PCTEL's Public Safety Network Testing Solution includes additional tools that streamline testing throughout your project lifecycle.



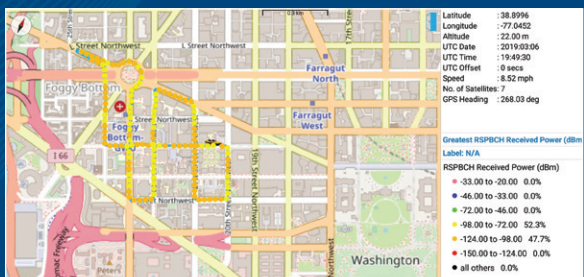
Indoor walk testing: detailed data for DAS and small cell network design, baseline testing and optimization



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

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

PCTEL's Public Safety Network Testing Solution combines the precision measurement capabilities of the IBflex® 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	IBflex® Scanning Receiver	SeeHawk® Touch Software	Accessories
	<b>Lightweight multi-band, multi-technology precision radio receiver with Bluetooth® connectivity</b>	<b>Data collection, spectrum analysis, and reporting tools on an Android™ tablet</b>	
<b>Public Safety Radio / P25</b>	<ul style="list-style-type: none"> <li>• Measure all frequencies 140-990 MHz</li> <li>• P25 Signal to Interference plus Noise Ratio (SINR), Frame and out-of-service Bit Error Rate (BER), Network ID (NID)</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 signal quality</li> <li>• Indoor walk test</li> <li>• Signal Analyzer</li> <li>• Import floor plans from image file or planning tools</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 Radio plus FirstNet ATT/Verizon LTE</b>	All of the above, plus: <ul style="list-style-type: none"> <li>• LTE Layer 3</li> <li>• FirstNet Band class 14 and all Verizon, ATT LTE bands</li> </ul>	All of the above, plus: <ul style="list-style-type: none"> <li>• Grid test LTE signal quality</li> <li>• Outdoor mode for drive test</li> <li>• Antenna Verification Testing (AVT)</li> </ul>	All of the above, plus: <ul style="list-style-type: none"> <li>• Vehicular rooftop antennas</li> <li>• Car charger</li> </ul>
<b>Public Safety Radio plus all cellular bands</b>	All of the above, plus: <ul style="list-style-type: none"> <li>• Decode all 2G, 3G and 4G cellular technologies</li> <li>• All cellular bands 10-3800 MHz</li> </ul>	All of the above, plus: <ul style="list-style-type: none"> <li>• Grid test UMTS/WCDMA signal quality</li> </ul>	All of the above
<b>DMR add-on option</b>	<ul style="list-style-type: none"> <li>• DMR SINR, Frame BER</li> <li>• Extended band range 10 MH-1 GHz</li> </ul>	<ul style="list-style-type: none"> <li>• Grid test DMR signal quality</li> </ul>	
<b>Additional options</b>	<ul style="list-style-type: none"> <li>• 5G New Radio, NB-IoT, LTE-LAA and LTE-MIMO</li> <li>• Extended band range to 6 GHz</li> </ul>	<ul style="list-style-type: none"> <li>• Additional licenses</li> </ul>	<ul style="list-style-type: none"> <li>• Certification training</li> <li>• Additional batteries</li> </ul>

## Solving Complex RF Problems

PCTEL is a leading global provider of wireless technology, including purpose-built antenna systems, Industrial IoT devices, and test and measurement solutions. Trusted by our customers for over 25 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](http://pctel.com/public-safety-testing-solution)



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