IMPROVING AWARENESS. TRACKING YOUR INDOOR LOCATION.

MOTOROLA AND TRX SYSTEMS INDOOR LOCATION

The TRX NEON Indoor Location System tracks and monitors location of personnel in indoor settings when outdoor GPS is unavailable. NEON is a compact and portable solution providing the ability to quickly model buildings in 3D, view personnel location in real time, and review activities thoroughly after an event or operation is complete.

With the NEON solution, public safety agency supervisors and incident commanders have access to a rapidly deployable solution showing where their teams are at all times. NEON improves tactical training effectiveness (police, military, & fire), enhances VIP and event security, increases efficiency of CBRNE operations, records crime scene forensics activities, supports enhanced search and rescue, and delivers improved situational awareness for underground operations.

Equipped with a gyroscope, accelerometer, pressure sensor, compass, and ranging sensors, and complemented by sophisticated location and mapping algorithms, these smart devices are worn by personnel to provide continuous tracking information to the incident commander or dispatch communications site. The TRX NEON Tracking Units connect to Motorola's APX™ P25 Portable Two-Way radios via Mission Critical Wireless Bluetooth which serves as a communications device to send tracking information over an ASTRO® 25 Integrated Voice and Data System.

INTELLIGENT TRACKING PERFORMANCE AT ITS PEAK

NEON Tracking Units combine sensor, RF, and map information to calculate personnel location. The system functionality allows commanders and supporting personnel to:

1. Model target building(s). NEON delivers easy to use, integrated software tools which allow personnel to quickly map out buildings so that commanders can visualize them in 3D (including number of floors, key building features such as stairwells and elevators, and floor plans, if available).

2. Initialize personnel locations. Because GPS is not accessible indoors, NEON Tracking Units deliver location relative to a starting point. The NEON system enables accurate location "initialization" or starting locations through effective placement of NEON Multi-Sensor anchors, which can be placed outside of a building or in any location where tracked personnel gather prior to an operation or event.

3. Monitor real-time location of personnel operating indoors. NEON delivers location of personnel both in 2D and 3D views, based on the building model created prior to deployment.

4. Review personnel activity via after action review. NEON provides a playback capability, enabling detailed review of operational activities and increased training effectiveness.

REQUIRED EQUIPMENT

- **NEON Tracking Units** - Mounted on the waist of the wearer.
- **NEON Multi-Sensor Anchor Nodes** - Provide reference ranging and environment information to improve accuracy.
- **NEON Command Software** - Shows tracking information via GIS Visualizer and supports 2D and 3D views, including building interiors. Displays personnel and level status including posture, battery level, communication status, and data integrity. Internet connection required.
- **Motorola P25 APX Portable Radio** - P25 two-way radio device connects to the tracking unit via secure Mission Critical Wireless Bluetooth and relays tracking information over Motorola's ASTRO 25 Integrated Voice & Data network. Available only in Conventional mode.[1]

[1] APX Portable required per NEON Tracking Unit and 1 APX Portable or Mobile required per Command Station including programming (USB /GCAI) cable

TECHNICAL DATA

TRACKING UNITS AND MULTI-SENSOR ANCHOR NODES		
Frequency	2.4GHz	
Dimensions (cm)	6.9H x 12.2 W x 2.8 D	
Weight	200 grams (7 oz)	
Operating Temperature	-20 to 60 degrees C	
Battery	Lithium Polymer, Up to 8 hrs.	
ACCURACY		
Horizontal:	Real-time: < 7 meter	After Action Review: < 4 meter
Elevation:	Real-time: < 1 meter	After Action Review: < 1 meter
LATENCY (DATA ONLY)		
One User:	< 4 seconds	
Three Users:	< 14 seconds	
Five Users:	< 22 seconds	
SCALABILITY		
Users:	5 per Command Station	
Event duration:	Up to two hours (typical)	
Data Latency:	Impacted by voice communications, number of users	

Motorola Solutions, Inc. 1301 East Algonquin Road Schaumburg, Illinois 60196, U.S.A. 800-367-2346
motorolasolutions.com