

REAL-TIME LOCATING SYSTEM

## **RTLS Hardware**







Accurate data and real-time intelligence by design



Data. It's what everyone is talking about, with good reason: data is the key to improvement. Each day, health systems miss opportunities to collect data for improving operations and patient care.

With the Midmark real-time locating system (RTLS), you can automatically collect valuable data to fuel improvement in your organization. Midmark RTLS badges, tags and sensory networks are designed to work in the background, communicating locations of people and equipment—accurately, automatically, *all the time*. With RTLS, better care is within reach.

This is the future of healthcare. Are you ready?

midmärk

RTLS gives you a bird's-eye view of patients, colleagues and equipment in your health system. Using badges (worn by people), tags (affixed to equipment), sensors (plugged into wall outlets or placed in the ceiling throughout the facility) as well as easy-to-use software, Midmark RTLS gathers location data and turns it into actionable insight for better workflow.



## **SENSORY NETWORK**

Wired, wireless or plug-in sensors throughout the facility receive badge and tag signals and communicate location data to the software.

## **ASSET TAGS**

ECGs, wheelchairs), Midmark RTLS Asset Tags emit IR, Wi-Fi and/or Bluetooth<sup>®</sup> Low Energy (BLE) locating signals. Choose the technology (or combination of technologies) that best meets your needs for precision: room-level or better with IR, near-room with BLE or zonelevel with Cisco<sup>®</sup> Wi-Fi.





## SOFTWARE SOLUTIONS

Location data, as well as workflow prompts, are visually displayed on workstation computers or large screen displays in common areas, keeping care teams in sync.



## **PATIENT + STAFF BADGES**



Affixed to mobile equipment (e.g., IV pumps,





# **BLE Sensory Network**



phone, our team or your local system integrator can deploy of days. With each sensor taking minimal. It's really that simple.



### BLE SENSORS: PLUG IN, CONFIGURE + TRACK

The BLE Plug-In Sensors (1.50"H x 2.72"W x 1.65"D) receive signals from BLE Asset Tags, providing location data with near-room precision. Each sensor communicates wirelessly and securely to the Midmark RTLS Cloud software with very little load on your facility's Wi-Fi network (1-2 Kbps) using the 2.4 GHz frequency band. Available both with or without a pass-through outlet.

PLUG-IN SENSOR RETAINER

The Sensor Retainer, included with every BLE Plug-In Sensor, protects against bumps, shocks and accidental removal.

# BLE Asset Tags





**MICRO BLE ASSET TAG** 

with battery life of up to one year.



## **BLE ASSET TAG**

The smallest asset tag available from Midmark RTLS, the Micro enables you to track easily lost, small equipment 1.65"W x 0.68"D Dimensions: 1.45"H x 0.95"W x 0.21"D

Easily locate assets both large and small—everything from IV pumps to telemetry packs and alucometers—with BLE Asset Tags that effectively balance size and battery life.

With our longest battery life (up to three years) and available in a compact size, this tag can track most assets in your fleet. Dimensions: 1.40"H x



### **BLE/IR ASSET TAG**

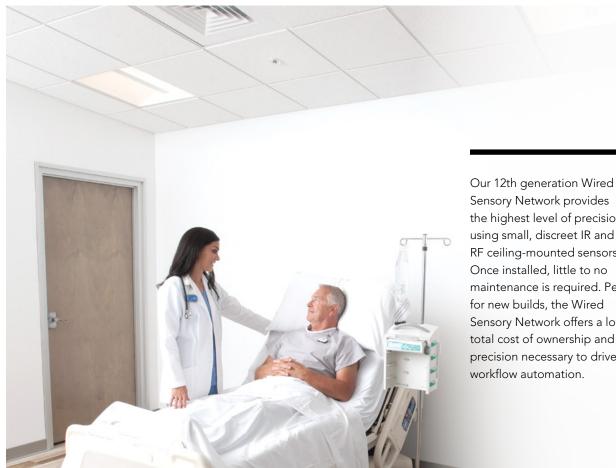
Leverage the precision of IR where our Wired Sensory Network is installed while supplementing with BLE. Provides up to one year battery life. Dimensions: 1.40"H x 1.65"W x 0.68"D "With Midmark RTLS, we receive very accurate location reports, down to the room level, without spending time and resources monitoring and recalibrating the RTLS."



**Stephanie Middleton** Manager of Information Technology Sentara Healthcare

9

# Wired Sensory Network



the highest level of precision RF ceiling-mounted sensors. maintenance is required. Perfect Sensory Network offers a low total cost of ownership and the precision necessary to drive



### WIRED IR SENSORS

Our discreet IR Sensors (2.75"W x 1"D) receive badge and tag signals to create room-, bed- or chair-level locations as small as a 2-foot radius. Sensor Plus includes a USB port to power BLE beacons for wayfinding applications.



### WIRED RF SENSORS

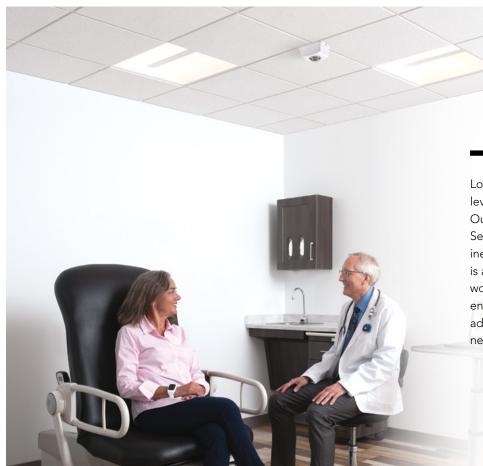
In addition to IR Sensors, RF Sensors (2.75"W x 1"D) are placed throughout the facility to receive button push and battery status data from IR/RF badges, Remote Stations and other components.



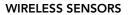
**COLLECTOR + CONCENTRATOR** 

The Concentrator (shown, with punchdown block) and Collector (both 5.25"W x 1.625"D x 5.5"H) are the backbone of the Wired Sensory Network. Concentrators receive data from up to four Collectors, which each receive data from up to 24 sensors.

# Wireless Sensory Network







Wireless Sensors receive IR signals from IR/RF badges and tags to create locations as small as a 3-foot radius, allowing precision down to chair level. Wireless Sensors are battery operated, easy to install and roughly the size of a smoke detector: 6"W x 2.63"D x 5"H



### LINK MODULE

The Link Module is the data conduit for the Wireless Sensory Network, receiving sensor data and passing it to the Gateway. It also acts as an RF sensor. At 2.23"W x 1.52"D x1.52"H, Link Modules are compact and plug into AC wall outlets for easy installation.

Looking for room and sub-room level precision without wiring? Our battery-powered Wireless Sensory Network is easy and inexpensive to install, and is a perfect choice to drive workflow automation in existing environments. You can even add wireless sensors to a wired network for quick expansion.

### GATEWAY

The Gateway receives all IR and RF data from the Link Modules. It aggregates location data, and then sends it via Ethernet to an on-premises server for distribution to workstation computers. Dimensions: 6.25"W x 2.25"D x 4.95"H

# **Clearview**<sup>™</sup>

# Our IR/RF Clearview Badge sets

the standard for durability and accuracy. With superior battery life and a functional, easy-towear design, Clearview stands the test of time.



PRECISE LOCATING, LONG LIFE Superior battery life sets Clearview apart. Powered by lithium coin cell batteries, Clearview battery life lasts up to two years, with IR wavelength of 875 nm/455 kHz and RF frequency of 433.92 MHz.



A DURABLE, COMPACT DESIGN Clearview is easy-to-wear and noninvasive. It's compact (1.65"W x 0.55"D x 2.44"H) and lightweight (1.06 oz, battery included). The badge button is programmable, typically used to call for assistance.



### MULTIPLE COLOR CHOICES

Choose the color that matches your facility, or creatively color code badges based on staff roles. The possibilities are endless. Clearview comes in White, Red, Blue, Yellow and Green. Custom options also available.

# Clearview<sup>™</sup> Mini





### FOUR WEARABLE OPTIONS

Clearview Mini can be worn on the wrist using our silicone accessory (sold separately), a hospital wrist band, or on the lapel using the included clothing clip or our silicone accessory (sold separately).



YOUR CHOICE OF CONFIGURATION For Staff Assist or other assistance options, Clearview Mini is available with an optional button. Silicone accessories come in White, Charcoal Gray, Pink and Blue.

Looking for more wearable options? Clearview Mini is our most versatile badge: same IR/ RF technology as the Clearview, with four wearable options. Clearview Mini is best suited for patient flow applications in outpatient clinic and acute care settings.



SUPERIOR BATTERY LIFE TO DISPOSABLE BADGES

Compared to disposable badge options on the market, Clearview Mini boasts three times the battery life (up to 90 days)—at a fraction of the cost.

# IR/RF Asset Tags









### ASSET TAG

A reliable IR RTLS tag for room-level (or better) accuracy. IR wavelength of 875 nm/455 kHz, and RF frequency of 433 MHz. Exceptional battery life of up to two years. Dimensions: 1.38"W x 0.56"D x 2.41"H

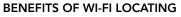


### MINI ASSET TAG

Same locating technology and precision in a smaller size. Exceptional battery life of up to two years, depending on time in motion. Dimensions: 1.25"W x 0.73"D x 1.75"H EQUIPMENT TO TAG

- Asset tags can be used on mobile assets, such as:
- IV Pumps
- ECGs
- Case Carts
- Wound Carts
- Stocking Carts
- Rapid Response Carts
- Wheelchairs
- Vein Finders
- Mobile Radiology Equipment
- Ultrasound Machines
- Wound Vacs
- Sequential Compression Devices





Use your existing Wi-Fi network to get RTLS up and running with existing architecture. Zone-level location information provided by Wi-Fi is a great foundation for campus-wide equipment visibility.



Our Wi-Fi Asset Tag emits an IR Wavelength of 875 nm/455 kHz, as well as CCX signals at a frequency of 802.11 (2.4 GHz), which provide general location of equipment via your facility's Cisco® Wi-Fi network. Refer to the Midmark RTLS Cisco Requirements document for details.



Leverage your Cisco<sup>®</sup> Wi-Fi network for zone-level locating. The Wi-Fi Asset Tag combines IR and Wi-Fi RTLS for hospital-wide visibility, plus precision where you need it. Compatible with both Cloud and On-Premises Asset Tracking software.



## A POWERFUL COMBINATION OF TECHNOLOGIES

# Additional Accessories

Enhance your RTLS investment and equip your facility or health system with these additional accessories for the Wired and Wireless Sensory Networks.

## Interfaces

seamless system integration.



ADA BADGE STORAGE CABINET Place IR/RF badges in a "non-active" zone and preserve battery life. Meets Americans with Disabilities Act (ADA) standards for accessible design. Available in wired and wireless configurations.



ADA BADGE DROP BOX

Make returning IR/RF badges easy with our ADA-compliant Badge Drop Box, which updates Midmark RTLS software and automates many aspects of the patient discharge process. Available in wired and wireless configurations.



**REMOTE STATION** 

The Remote Station is a small, wireless RF device that can be mounted on a wall or other surface to send a preprogrammed response (e.g., identify room status as clean/dirty, call for vital signs, call for staff assist).



### FOCUS KIT

Looking to focus your IR sensors for increased precision? Our inexpensive Focus Kits easily configure Wired and Wireless Sensors to achieve bed- and chair-level granularity.



RACK MOUNT SYSTEM Integrate your Midmark RTLS Wired Sensory Network with your existing rack mount architecture using our Rack Mount System for Collectors and Concentrators.



BADGE TESTER

Check the status of IR badges or tags using our hand-held Badge Tester. The LCD screen shows a reading of badge/ tag ID number, battery state, IR signal type, motion state and alarm state.



ELECTRONIC MEDICAL RECORDS (EMR)

Interface with virtually any EMR, including Epic<sup>®</sup> and Cerner<sup>®</sup>. A bi-directional RTLS-EMR integration facilitates data flow from the RTLS to the EMR, reducing manual data entry.





### PATIENT ENGAGEMENT

Create a positive, interactive care experience by providing location data to patient engagement systems. As a provider enters the patient room, their credentials are displayed on the TV to inform and put the patient at ease.



CMMS

## Create a seamless healthcare ecosystem by interfacing Midmark RTLS with your EMR, CMMS and other systems. Midmark RTLS provides an open architecture for

Add location data to your computerized maintenance management system (CMMS) by interfacing with Midmark RTLS.

TEMPERATURE MONITORING Midmark RTLS and Primex<sup>®</sup> provide a partnership of best-in-class solutions. Primex OneVue Sense<sup>™</sup> is viewable through Midmark RTLS Enterprise View<sup>®</sup>, proactively alerting users of any changes in environmental conditions.



### NURSE CALL

Give time back to nurses by automating your nurse call system with location data. Midmark RTLS interfaces with virtually every nurse call system, saving time and lightening nurse workload.



### ALARM MANAGEMENT + MESSAGING

Send notifications from Midmark RTLS directly to mobile phones and other devices. You can also suppress notifications based on location to reduce noise and alarm fatigue.



## Designing better care®

Midmark RTLS is an ISO 9001 Certified Company. For more information or a demonstration, contact 1.800.MIDMARK, call Midmark RTLS directly at 1.877.983.7787 or visit our website at midmark.com.

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