

## Indoor and Outdoor Positioning System for MOTOTRBO

### hermesTRX Positioning System

#### Indoor and Outdoor Positioning System

There is an increasing demand to provide accountability and traceability in the supervision of routine security tasks. Based upon our hermesTRX MOTOTRBO fleet management system, such accountability and traceability can be provided both outdoors and in indoor environments. Not only does this solution provide positioning, but it can also be utilized to provide man down functionality further enhancing the safety of the workforce.

#### Indoor Tracking compliments Wide Area Tracking

Indoor tracking is accomplished by the installation of a number of beacons throughout the various areas of a building or large complex. The hermes beacons broadcast a unique 'signature' up to a distance of approximately 30m around the beacon. Fitted inside the MOTOTRBO radio is a hermes transponder indoor option board, which automatically picks-up the beacon's signature as it moves around the complex. The hermes beacons provide radio coverage which ranges from a few feet up to 30m. The output power can be adjusted as necessary to define the required coverage area.

The hermes transponder option board automatically instructs the radio to send the beacon ID to the hermesTRX dispatch station where the location of the subscriber is updated on the screen. In the event of an emergency, the location of the 'downed' person will be displayed in red on the screen and an audio alert will be signalled to the dispatcher.

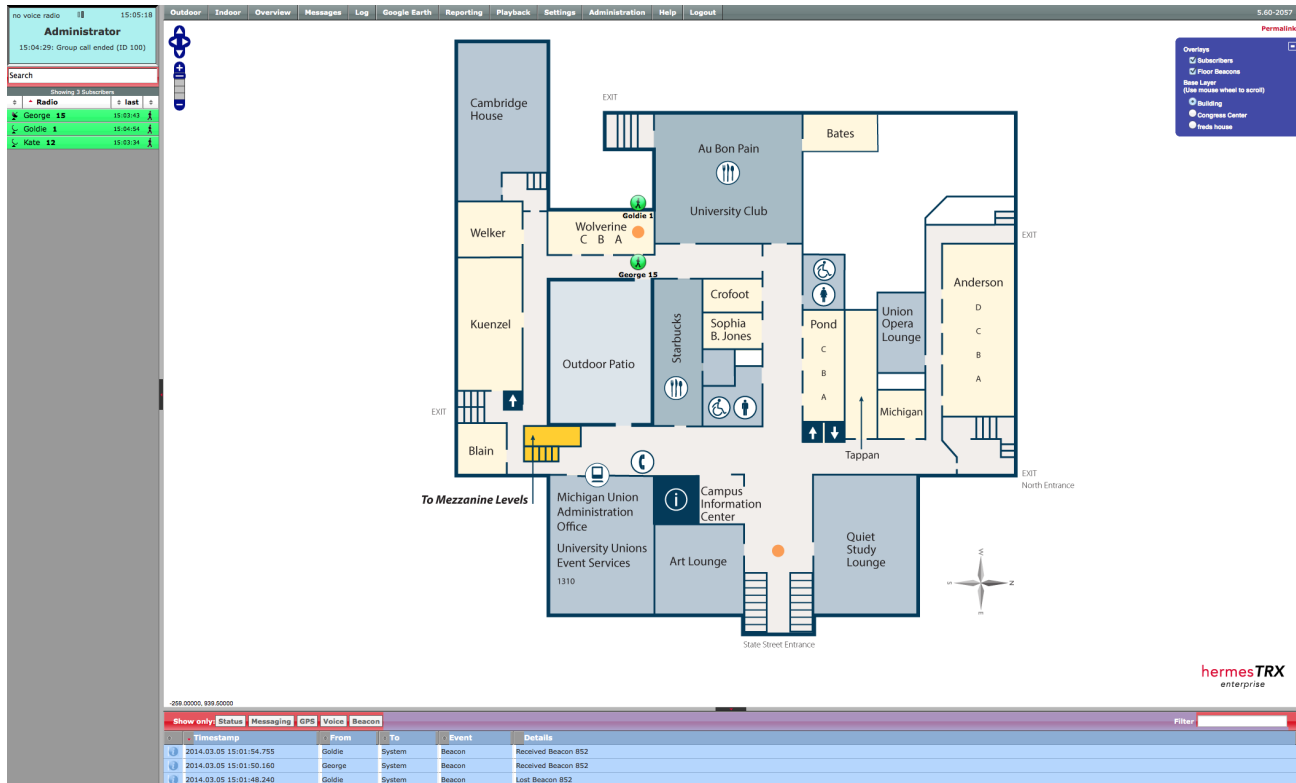
#### Patrol Management

By placing beacons close to the entry points of buildings, the hermes beacon is ideally suited to provide verification of who entered or exited the building. In combination with the built-in GPS module in the MOTOTRBO radios, personnel can be tracked both in outside and inside environments.

#### Map Interface

The hermesTRX has a map interface, to enable the upload of building/complex floor plans. The system admin can then place the beacons on the floor plan by a few simple mouse clicks. Also if a complex has multiple sites or multiple floor plans, a dispatcher can simply right click on the subscriber stack





and request "show on map" and hermesTRX will jump to the floor plan that particular subscriber is currently on.

**The Beacons**



The range of the hermesTRX beacons can be adjusted to provide coverage of just a few feet up to a range of 30m. Depending on the set-up requirements, the range is adjusted specific to the particular application. The beacons are IP66 rated and can be used for indoor and outdoor operation. The internal battery has an expected lifespan of up to 3 years. To ensure that a beacon does not fail due to low battery power, the Beacon sends an automatic warning via MOTOTRBO indicating that the battery is reaching end of life.

**Technical Data**

**Beacons**

Frequency	868.35 MHz
Transmitting power	0,1 ~ 0,75mW
Type Approval	FCC 15.249
Temperature range	ETSI I-ETS 300 220
Environmental	IP66
Battery life	Li/SOCI <sub>2</sub> 19000mAh 3 Years*

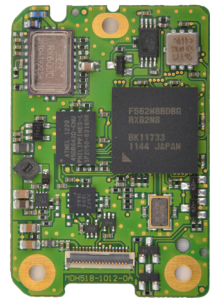
\* Two transmissions per second and highest transmit power level

Dimensions/ weight 120 x 80 x 55 mm / 250g

**Indoor Option Board**

Radio Compatibility  
Emergency Types

All MOTOTRBO Portables except SL  
Man down,  
no movement,  
lone worker  
telemetry



**hermesTRX Specification**

- Indoor (Beacons) and Outdoor (GPS) Positioning
- Build-in Web Server for Browser based Operation
- Flexible Building/Floor Plan import (JPEG, PNG, etc.)
- Reverse Geocoding enables the conversion of GPS coordinates into street addresses incl. multiple Geo-Fences alarms
- Flexible Mapping Engine provides the option of choosing OpenStreetMap, ESRI, MapQuest, ArcGIS, National Geographic or Google TM Earth
- Compatible with Conventional, IP Site Connect, Capacity Plus, Linked Capacity Plus and MNIS (MOTOTRBO Network Interface Service)
- Compact Dimensions (WxHxD): 192 x 62 x 210 mm