Ultra-wide band (UWB) technology is a wireless communication technology that transmits data at high speed within a short distance using very low power. It has strong anti-interference performance, high transmission rate, wide bandwidth, low power consumption, small transmission power and highly accurate positioning.

The Satlab indoor positioning solution provides users with instantaneous position and motion information of personnel and equipment in a given area accurately and in real-time. Users can make informed decisions and intuitively grasp the situation at ease.

BENEFITS

High Real-time Capacity

The wireless real-time positioning platform relies on an integrated network comprising of multiple powerful data acquisition sensors to send signals instantly.

Centimeter-level Precision Positioning

The optimized algorithm ensures centimeter-level high precision positioning in applications with significant multipath effects, such as indoors or power stations.

Strong Resistance to Multipath Interference

The system uses ultra-wideband technology that has high time resolution and strong resistance ability to multipath interference.

High Stability

Less sensitivity to electromagnetic and physical interference from the environment that results in higher accuracy.

Easy Layout

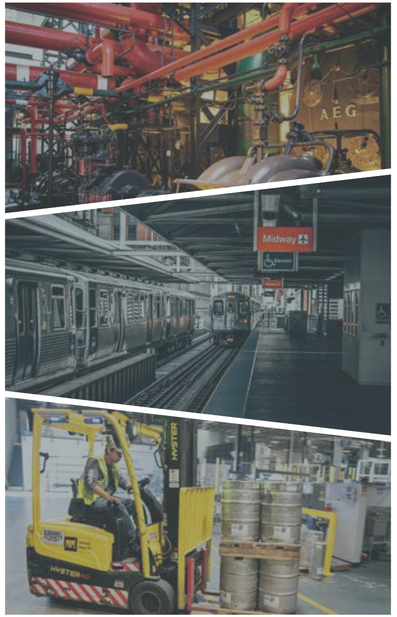
The wireless connection of this self-organizing network makes the system deployment simple, stable and reliable.

High Security

Less than 1% of radiation from a smart phone.

Applications

- Power Plant / Substation Management
- Chemical Factory Management
- Pipe Gallery Inspection Management
- Detention House Management
- Underground Construction Positioning
- Railway Station and Airport Navigation
- Warehouse and Logistics Management
- Emporium Navigation
- Sport Training Hotspot Analysis



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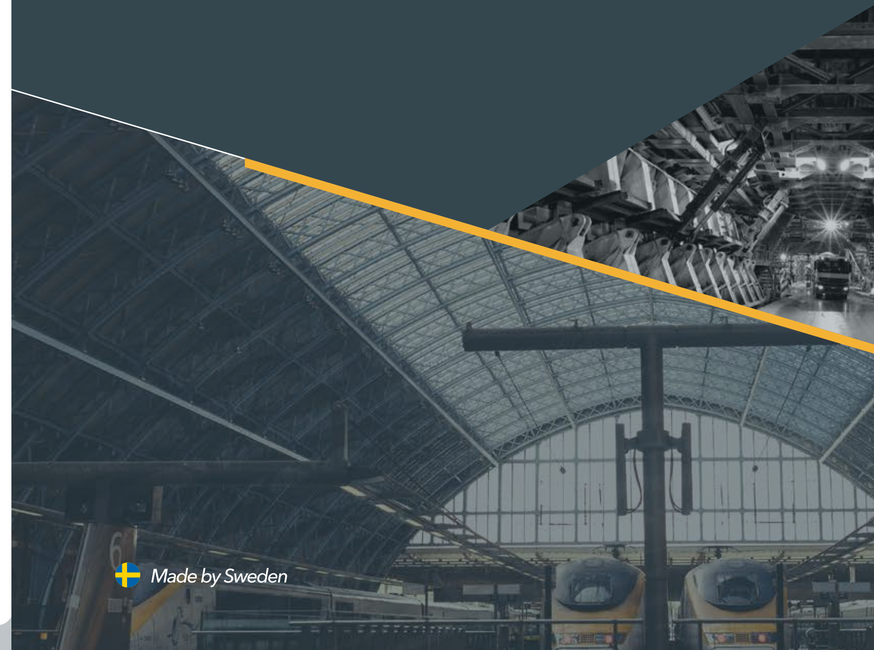
SATLAB GEOSOLUTIONS

Indoor Positioning Solution

Be aware of the value in indoor locators

The Satlab AI Localizer (SAIL) provides professionals with real-time indoor positioning using cutting-edge technology based on a combination of smart algorithms and sensors for any type of indoor environment. Navigate using this scalable high-tech solution to track and analyze data even under conditions with poor GNSS signals.



Made by Sweden

SAIL Tag

Product Specifications

Product	UWB Working Frequency	Battery life	Weight	Size	Environmental Protection
Standard Tag STAG220	3.1GHz-7.0GHz	5 months/1Hz	21g	57*37*14mm	—
Badge Tag STAG230	3.1GHz-4.5GHz	4 months/1Hz	35g	85.4*53.4*6.6mm	IP66 Protection
Cargo Tag STAG240	3.1GHz-7.0GHz	12 months/1Hz	39.4g	67*50*20mm	—
Vehicular Tag STAG270	3.1GHz-4.5GHz	15 months/PA	1191g	147*110*175mm	—
Wrist Tag STAG280W	3.1GHz-4.5GHz	4 months/1Hz	49g	50*42.5*16mm	IP67 Protection (Strap length 260mm)
Anti-dismantle Tag STAG280T	3.1GHz-7.0GHz	3 months/1Hz	83g	53*20mm	IP66 Protection (Strap length 260mm)
Explosion-proof Tag STAG310	3.1GHz-7.0GHz	3 months/1Hz	45g	70*51*19mm	Ex ia IIC T4 Ga explosion-proof.

Anchor-Standard

Product	Range	Weight	Size
SAC220/220U Suitable for industrial, office and other areas, the mainbody could be placed inside the ceilings, good concealment.	35-150m	380g	200*65mm
SAC310/310U EMC certification, applicable to places with perfect interior decoration and high visual requirements, small size.	35-150m	380g	200*65mm
SAC310W IP65 protection, EMC certification, suitable for outdoor and indoor humid areas, good waterproof, high firmness, easy to install and configure.	35-150m	1kg	205*200*100mm
SAC320 IP66 protection, large-scale outdoor layout, suitable for long-distance scenes such as underground pipe galleries.	35-200m	700g	174*174*70mm
SAC410A/410B IP65 protection, EMC certification, Ex d IIC T6 Gb explosion-proof, applicable to substation, petroleum, thermalpower plant, chemical plant or other industries where explosive gas exists.	60m	3.5kg	232*82mm

Anchor-AOA

Product	Central Frequency	Coverage
The AoA Single base indoor positioning anchor The AoA Single base indoor positioning anchor uses the leading idea and technique to provide precise indoor positioning with only 1 anchor deployment. AoA (Angle of Arrival) refers to the angle of incidence at which signals from a anchor arrive at the tags. With the built-in antenna array, the AoAs can be obtained accurately, so the two-dimensional coordinates of the tags can be resolved by triangulation.	4.0 GHz	30m (with 3 meters height installation)

SAIL Engine

The SAIL engine calculates positioning data sent by the anchors using the high-performance built-in algorithm to get the most accurate positioning results of the target.

WORKFLOW

Receiving the signals from the tags

Resolving the position information of the tags with TDoA or AOA method

Sending the coordinates of the tags to the application platform

FUNCTIONS

- System management
- Equipment configuration
- Engine configuration
- System analysis
- User management

SAIL Platform

The SAIL platform equips users with a seamless workflow, displaying real-time positioning results to help in making well-informed decisions.

FUNCTIONS

- Map management, roaming and query
- Label information display
- Electronic fence and alarm
- Online label management
- CCTV integration
- Routine design and trajectory playback
- Battery monitoring
- Visual positioning symbol settings
- Report generation and query
- Highly customized module design