KINEXON
precision technologies

KINEXON LOCALIZATION SYSTEM

Operational Description – Asset Tag

Version 1.0

Kinexon System

The Kinexon System is a Real-Time Location System (RTLS) based on Ultra-Wideband (UWB) technology. Its primary use is for the tracking of people or objects. The system operates using active Tags, a network of Receivers, and a Kinexon Sensor Network Application.

Receiver: The Kinexon Receivers are devices that are temporary mounted in the area of coverage. The Receivers listen for and decode UWB data packets from the Tag.

Kinexon Sensor Network Application: The Kinexon Sensor Network Application (SNA) coordinates multiple Receivers within the Kinexon Network. The SNA is also collecting the data via Wifi or Ethernet from the Receivers and passes this data to other application (e.g., Kinexon Server Application).

Tag: The Tag is a small, transceiving device with an integrated antenna. It senses different data (e.g., accelerations, temperature) and transmits the data to the Receivers. The duty cycle can be set in the Kinexon Server Application or triggered by movement with onboard accelerometer.

The Tag is powered via a small included battery, which can - depending on system settings - guarantee operation for up to several years. The data is modulated using a variable pulse position modulation combined with binary phase shift keying. An integrated chip antenna emits the RF signals.

Receiver

Tag

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