RTLS TDoA System Overview

Technical Overview

- Compliant with UWB PHY IEEE 802.15.4a
- DecaWave UWB Radio
- 4 Channels
- 3 – 7 GHz

RTLS Devices

Tags

Tag is an active mobile locator. Its position is reported within selected refresh rate. Tracked object need to be equipped with this device.

Piccolino Tag

Li-ion Tag

- Movement Detection
- Orientation Roll, Yaw, Pitch
- Source code available
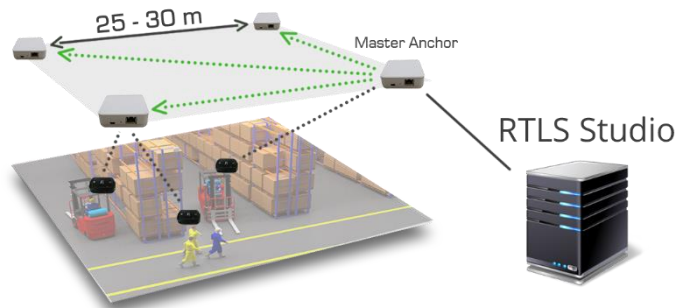- White labelling possible
- HW layout available
- UWB

Anchors

Anchor is a referential device with a known position. Set of Anchors creates location infrastructure where Tags are being located.

d8:80:39:62:1d:6c
d8:80:39:61:e9:90
d8:80:39:62:8f:29

- Ethernet
- WiFi

System Architecture

Anchors are mounted on the ceiling and placed in a grid manner. Tags transmit UWB signals to Anchors, which send data to a server via Ethernet or Wi-Fi. The server is preloaded with RTLS Studio, which is a user friendly software with many features.

25 - 30 m

Master Anchor

RTLS Studio

Key Features

Accuracy	Devices	Space	Position update
from presence detection to decimeter level of accuracy	From < 10 To more than 1000	from one cell covered by 4 Anchors to almost unlimited number of cells	from 60s to 100 ms

Tag

1 decimeter

60s   100ms