TRACElet

Key Features

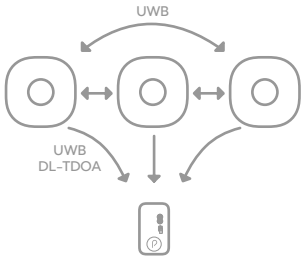
The Pinpoint TRACElet receives ultrawideband (UWB) positioning signals from the SATlet network using the Downlink-TDOA method. The position is calculated on the TRACElet and shared to phones and mobile devices via BLE.

- UWB according to IEEE 802.15.4-2011, DL-TDOA
- On-device positioning
- Attractive design for indoor use
- Position sharing via Bluetooth LE (BLE)
- Power supply 5 V
- Integrated battery for 8 hours of operation

Application

Application areas of the Pinpoint TRACElet include indoor areas that are to be equipped with precise positioning for way finding, location based services and interactions. This TRACElet features an attractive and lightweight housing design and serves as the positioning engine for phones and mobile devices.

System Architecture



SATlets synchronize wirelessly with each other and provide UWB signals as broad cast for the TRACElet. The UWB signals work according to the downlink TDOA method and can be used by the TRACElet for positioning.
The TRACElet calculates its own position on the device and makes it available to the applications. The number of TRACElets is not limited.

Specification

Communication	
Communication	Bluetooth LE; 2.4 GHz
Power Supply	5V DC
Positioning	UWB IEEE 802.15.4-2011, 6.5 GHz

Software	
Configuration	Pinpoint Updater
Firmware Update	Bluetooth DFU via Pinpoint Updater

Electrical	
Rated Power	Approx. 0,1 W (charged); 3,75 W (charging)
Protection Class	II
Battery	1800 mAh; 3,6 V

Mechanical	
Dimensions	49 x 84 x 25 mm (WxHxD)
Weight	71 g
IP Protection Class	IP20

Environmental	
Operating Temperature	-20°C .... 40°C
Immunity	conform according to ETSI EN 301 489-33 V2.2.1
Emissions	conform according to ETSI EN 301 489-33 V2.2.1
Certifications	CE

Schematics [mm]