nanotron
An Inpixon Company

Ruggedized RTLS Tag
Proximity and Location Monitoring

Introduction

The ruggedized, small and lightweight RTLS Tag supports low-latency autonomous proximity detection and precise tracking applications. Its ruggedized housing with integrated belt clip is available as ATEX certified device for explosive environments. It integrates into nanotron's ranging and tracking solution, running concurrently. The tag's capabilities have been proven in safety application for underground mining worldwide.

Figure 2 Ruggedized RTLS Tag with belt clip

Figure 1 Qi charging station

Key Features

The tag features integrated antennas and wireless charging via Qi charging device.

Frequency .... ISM 2.4-2.4835 GHz

TX Power .... -22dBm to +14±2 dBm

Battery capacity .... 1200 mAh

Charging time with charging station......... 5 hours

Size ....72 x 56 x 27 mm

Weight... 173 g
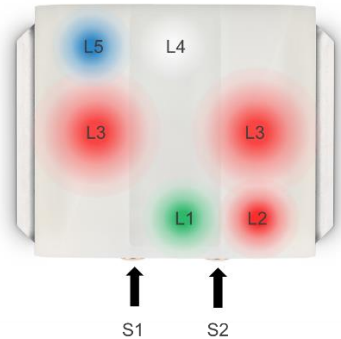
User Interface

Figure 3 Top view with LEDs

There are two push buttons and five LEDs that provide status information and feedback for the user.

The ruggedized Tag needs a Gateway (nanoANQ EA or swarm bee LE v2 DK+ Board) to be remotely controlled and change the LED status for example. The status change of the push buttons S1 or S2 is transmitted to a controlling entity upon which it will decide to switch on/off or let blink the LEDs L3 and/or L4. To signal in either direction warnings and notifications for instance.

LED	Color	Function
L1 (small)	red	Charging
L2 (small)	green	Charged
L3 (big)	red	Remote programmable
L4 (small)	white	Remote programmable
L5 (small)	blue	TX On

Applications

Typical applications are the identification, protection, tracking and warning of staff in hazardous areas as well as the signaling by workers of an emergency. The robustness of the Tag allows to be used in rough environments like manufacturing, mines and process plants.

Ordering Information

Order No.	Description
PMACS001TG	Ruggedized RTLS Tag
PMACS001QI	Qi charging station
KNANQEV01CS	RTLS Evaluation Kit nano-ANQ EA 4 x nanoANQ EA, 3 x swarm bee LE V2 DK+, nanoLES, RTLS Tools, OTA Configurator

SW and Accessories

Order No.	Description
BN02SWBLP	swarm bee LE v2 DK + Board incl. antenna
SN03SWAT	OTA Configurator for wireless configuration.

About nanotron, An Inpixon Company
Nanotron Technologies GmbH, an Inpixon company (Nasdaq: INPX) is a leading provider of electronic location awareness solutions. If knowing what, where and when is mission-critical to your business, rely on nanotron with Location Running.
Nanotron's solutions deliver precise position data augmented by context information in real-time. Location Running means, reliably offering improved safety and increased productivity, 24 hours a day, 7 days per week: Location-Awareness for the Internet of Things (IoT).

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