

Overview

The Ubisense DIMENSION4 Mini Tag is a small, self-contained device that can be attached to smaller assets, carried or worn by people allowing them to be accurately located in real-time in three dimensions. It is very rugged, dust- and water-resistant to IP69K, and includes additional features such as an LED for easy status identification, a motion detector to instantly activate a stationary tag, and a magnetic reed switch to trigger context-sensitive events. It also has a replaceable battery.



Accurate Location

The tag transmits ultra-wideband (UWB) radio pulses which can be used by the Ubisense location system to find its position. By using UWB, the system's accuracy is maintained even in cluttered, highly-reflective indoor environments.

The Ubisense UWB location system is the only one capable of measuring both Angle-of-Arrival (AoA) and Time-Difference-of-Arrival (TDoA) of the tag's signals, enabling it to generate accurate 3D tracking information even when only two sensors can detect the tag.

Specifications

Dimensions:

54mm x 40mm x 14mm
(2.1" x 1.6" x 0.55")

Weight:

35g (1.2oz) (including lithium cell battery)

Temperature:

-40°C to 85°C (-40°F to 185°F)

Humidity:

0 to 95%, non-condensing

Enclosure:

Polycarbonate (V0-rated)
Tested to protection level IP66, IP68, IP69K

Update rate:

Up to 30Hz (configured during commissioning)

Peripherals:

LEDs, Magnetic reed switch, Motion detector

Radio frequencies:

Ultra-wideband channel: 6 - 7GHz
Configuration channel (optional): Narrow-band 2.4GHz

Certifications:

US: FCC Part 15; FCC ID SEAMOD31

EU: CE

Canada: RSS-Gen, RSS-210, RSS-220 ; IC: 8673A-MOD31

Power supply:

LTC-7PN lithium cell

Mounting options:

Optional mounting options include adhesive pad, screw, and wrist strap
Custom mounting solutions possible on request

Ubisense part codes:

D4FLAT33

Flexible Update Rates

The tag's update rate may be automatically varied depending on tag activity. An inbuilt motion detector ensures that when the tag is moving, a high update rate is assigned for best tracking; when stationary, the update rate may be reduced to preserve battery lifetime.

Rugged and Adaptable

The mini tag has been designed to withstand harsh industrial environments. Mechanically robust, dust- and water-resistant, the mini tag can be securely mounted using a variety of attachment mechanisms.

Long Battery Life

The low current consumption and sophisticated power management techniques result in long battery lifetimes. Status reports and alerts make maintenance easy and batteries are technician-replaceable. In a typical application, where a tag with a LTC-7PN lithium battery is used to continuously locate an asset once a second, it has an expected lifetime of over two years.

Optional Wireless Configuration

In addition to the one-way UWB radio used for tracking, tags may optionally use a conventional, two-way 2.4GHz radio for commissioning purposes. This capability allows tag configuration parameters, such as update rate, to be altered.



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