DIMENSION4

UWB Industrial Tag

Fact Sheet

OVERVIEW

The Ubisense DIMENSION4 Industrial Tag is a small, rugged device that can be attached to assets, allowing them to be accurately located in real-time in three dimensions.

It is specifically designed for use in industrial sites where harsh environmental conditions may be encountered. In addition to tracking capabilities, it includes features such as three LEDs for easy status identification, a motion detector to instantly activate a stationary tag and a push button to trigger events.

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:
71mm x 64mm x 47mm (2.80" x 2.52" x 1.85")

Weight:
128g (4.5oz) (including C-size battery)

Temperature:
-40°C to 85°C (-40°F to 185°F)

Humidity:
0 to 95%, non-condensing

Enclosure:
ABS (V0), UV Stabilized
Tested to protection level IP66, IP68, IP69K

Update rate:
Up to 30Hz (configured during commissioning)

Peripherals:
LEDs, Push button, Motion detector

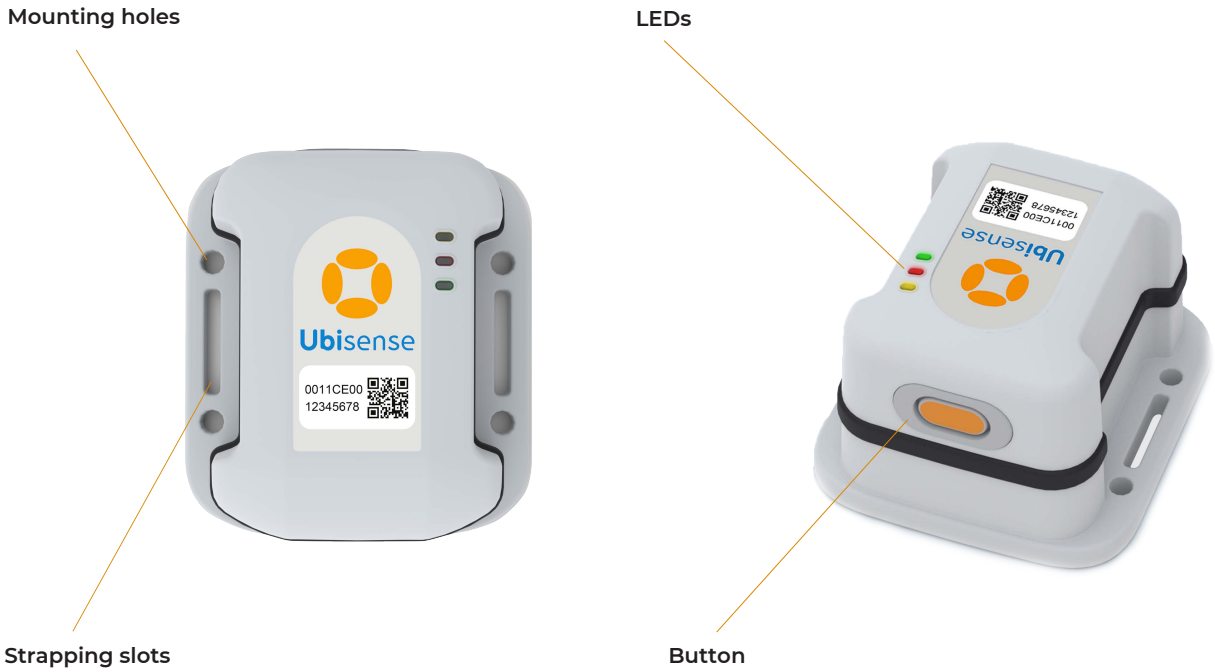
Radio frequencies:
Ultra-wideband channel: 6 - 7GHz
Configuration channel (optional): Narrow-band 2.4GHz

Certifications:
US: FCC Part 15; FCC ID SEAMOD31
EU: CE
Canada: RSS-Gen, RSS-210, RSS-220; IC: 8673A-MOD31

Power supply:
C-size lithium cell

Mounting options:
Screw, Strap
plus Adhesive, Magnet and Velcro® (via optional mounting bracket)

Ubisense part codes:
D4TAG31IND-C (Industrial tag)
D4TAG31NBT-C (Industrial tag without button)
INDTALLBKT (mounting bracket)



RUGGED AND ADAPTABLE

The Industrial Tag is designed to be rugged for use in harsh industrial environments. It is mechanically-robust, dust- and water-resistant, and can be securely mounted using a variety of attachment mechanisms.

USER INTERACTION FEATURES

The tag has a button to provide context-sensitive input to interactive systems. Applications can use the tag's location at the time the button was pressed to determine what action should be taken in response – for example, activating an item of machinery when the button is pressed, but only if the user is in a safe location.

INDUSTRIAL TAG WITHOUT BUTTON

Some applications have no need for a button, other than to activate the tag. Therefore, for even greater resilience, a variant of the Industrial Tag is available with no push button. It is activated by simply passing a magnet close to the tag.

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; if it is stationary, the update rate may be reduced to preserve battery lifetime.

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 C-size lithium battery is used to continuously locate an asset once a second, the tag has an expected lifetime of over ten 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.

Ubisense

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