

The Ubisense Compact Tag is a small, rugged device that, when attached to assets or worn by people, allows them to be located to an accuracy of 15cm* in 3D in real time. It is designed for use in a variety of different environments, including industrial sites. In addition to its tracking capabilities, it includes additional features such as an LED for easy identification, a motion detector to instantly activate a stationary tag and a push button to trigger events.



Features

Accurate Location

The tag transmits ultra-wideband (UWB) radio pulses which can be used by the Ubisense location system to find its position to within 15cm* in 3D. By using UWB, the system's accuracy is maintained even in cluttered, multipath-rich 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.

Two Way Communication

Ubisense tags employ a unique dual-radio architecture – in addition to the one-way UWB radio used for tracking, tags have a conventional bi-directional 2.4GHz radio for control and telemetry. The two-way communication capability allows the Ubisense system to dynamically manage the tag's update rate, flash the tag's LED, report battery status and button presses, and wirelessly reprogram the tag to enable new features.

Flexible Update Rates

The Ubisense software platform allows the tag's update rate to be dynamically and automatically varied depending on tag activity. If the tag is moving quickly, a high update rate can be assigned for best tracking; if it is moving slowly the update can be reduced for best battery lifetime. When stationary, tags sleep to conserve power, and an in-built motion detector ensures the tag transmits again as soon as it is moved.

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. The application can also send feedback to the user via the tag LED that the application received the service request.

Rugged and Adaptable

The Compact 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.

Long Battery Life

The low current consumption and power management techniques result in long battery lifetimes. In a typical application, where a tag is used to locate a worker every 3s, it has an expected lifetime of over four years. Status reports and alerts make maintenance easy and batteries can simply be replaced.

Specifications

Size and Weight

Dimensions: 38mm x 39mm x 16.5mm
(1.50" x 1.53" x 0.65")

Weight: 25g (0.88 oz)

Standard: -20 °C to 60 °C (-4 °F to 140 °F)

Extended: -30 °C to 70 °C (-22 °F to 158 °F)

Humidity: 0 to 95%, non-condensing

Enclosure

Standard: IP63

Extended: IP65

Update Rate: 0.00225Hz up to 33.75Hz
(can be varied dynamically under software control)

Peripherals

LED (application controllable)

Push button (application controllable)

Motion detector

Radio Frequencies

Ultra-wideband: 6GHz – 8GHz

Telemetry channel: 2.4GHz

FCC Part 15 (FCC IDs SEATAG22, SEATAG22HH)

EU CE

3V coin cell (CR2477)

Ubisense Part Codes

UBITAG7022 (Standard),

UBITAG7022-X-65 (Extended)

Certifications

FCC Part 15 (FCC IDs SEATAG22, SEATAG22HH)

EU CE

Power Supply

3V coin cell (CR2477)

Mounting Options

Industrial adhesive pad (supplied),

industrial velcro, magnetic, and screw

mountings

velcro, magnetic, and screw mountings

About Ubisense

Ubisense is the world leader in Precise Real Time Location Systems, tracking unlimited numbers of people and objects in any space of any size. With unmatched 15cm 3D tracking accuracy and high reliability, its acclaimed open standards technology platform gives enterprises the power to bring visibility and control to previously intractable business processes. Together Ubisense consulting and its partners, such as IBM, Atlas Copco, Lockheed Martin and Raytheon deliver geospatial and RTLS systems, pioneering innovation whilst reducing costs, gaining competitive advantage and improving safety for companies across all vertical markets. With over 400 customers worldwide including BMW, Caterpillar, DHL, Duke Energy, Deutsche Telekom, US Army; Ubisense is revolutionising industries today. Visit www.ubisense.net

For further information please contact: enquiries@ubisense.net

Worldwide offices

Ubisense UK & Ireland

St Andrews House
90 St Andrews Road
Cambridge CB4 1DL, UK
Tel: +44 (0) 1223 535170

Ubisense Asia Pacific

1 Fullerton Road
02-01 One Fullerton
Singapore 049213
Tel: +65 6472 0186

Ubisense Australia

Level Twelve 200 Queen Street
Melbourne VIC 3000
Australia
Tel: +61 3 8681 0400

Ubisense Europe

ADAC Haus
Freie-Vogel-Str. 393
44269 Dortmund, Germany
Tel: +49 (0) 231 99955 500

Ubisense Korea

Youngdong Tower #902
300-4, Sungsu-Dong 2-GA
Sungdong-Gu
Seoul, 133-120
Korea
Tel: +82 2 529 1472

Ubisense New Zealand

Level 3, 10 O'Connell St
PO Box 6714 Wellesley St
Auckland 1010
New Zealand
Tel: +64 9 304 1048

Ubisense Americas

5445 DTC Parkway, Suite 1110
Denver, CO 80111, USA
Tel: +1 (720) 249 4149

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