



CloudTag

User Manual

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1. Safety

Please pay close attention to these guidelines. Ignoring these instructions could lead to dangerous situations or illegal activities and will result in the loss of warranty coverage. Should you have any inquiries, contact support@iiwari.com.

WARNING:

ENSURE SAFETY BEFORE APPLYING POWER

Do not operate the device in areas where the use of wireless devices is prohibited or may cause interference or dangerous situations.

INTERFERENCE

Please note that wireless devices can be sensitive to interference that can affect performance.

USE APPROVED ACCESSORIES ONLY

Ensure that you use only accessories that have been officially approved.

2. Introduction

The Iiwari CloudTags are designed to be attached to moving objects and work together with the Iiwari indoor positioning system network to locate their positions. The CloudTag is the size of a key chain and is powered by a coin battery, making it suitable for tracking both personnel and other objects. The CloudTag operates in either sleep or active modes, transmitting blink messages based on the movement of the tag. CloudTag recognizes the situation when it is outside the coverage area of the positioning network. In this case, the device stops normal operation. When the device returns to the network coverage area, it continues normal operation.

Positions are then calculated using this blink message either on a local server or in the cloud. These operational modes contribute to the tag's extremely low power consumption, allowing the battery to last from one to several years, depending on how frequently positions are calculated.

3. Using CloudTag

Button Press for Start

CloudTag device is started by pressing the button in the front cover. The led light under the button is lit for two seconds and then it will start operating. CloudTag also sends wireless messages. Device will blink until the battery is empty. Lifetime of the device is one to several years.

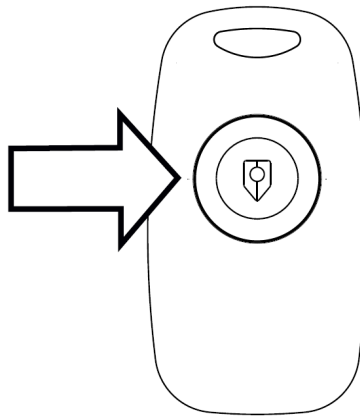


Figure 1. CloudTag button.

Button Press During Blinking

When the CloudTag is turned on, the user can send a message to the location system by pressing the button in front cover. The operation of the button is application-specific, consult your IT support.

Stop

The CloudTag device can be stopped by pressing the button on the front cover until the LED light starts blinking. A long press of the button should take about five seconds. The CloudTag turns off when it stops blinking.



If the device does not work

If the CloudTag doesn't appear in the positioning user interface, restarting the CloudTag may help. (See instructions for stopping and starting above.)

If the CloudTag does not flash even after restarting, the CloudTag is out of order and needs to be returned to Iiwari. If necessary, contact Iiwari through the support channel, support@iiwari.com

More information of Iiwari positioning system can be found at <https://www.iiwari.com/technical-documentation/>

4. Product Information

Mechanic dimension

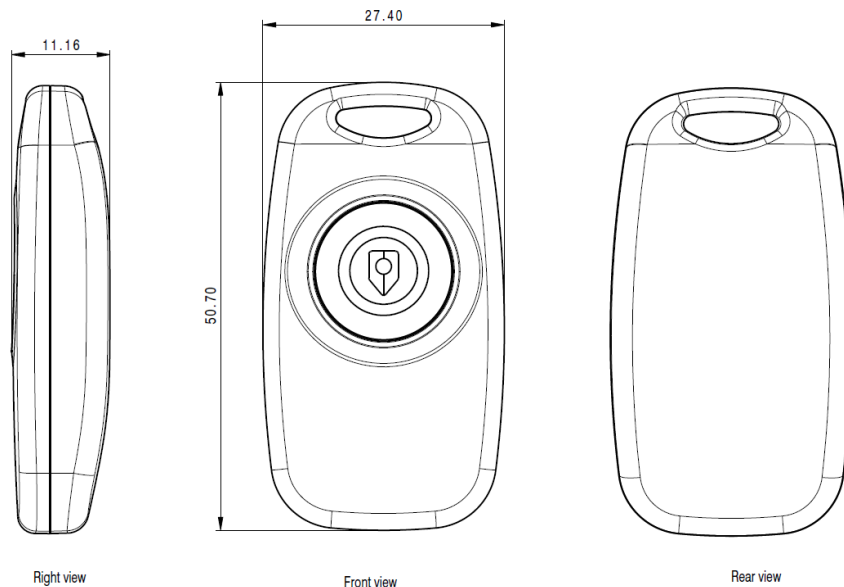


Figure 2. Mechanic dimension of CloudTag.

LED and button



Figure 3. Led and button.

Technical Specifications

Dimensions	51.0mm x 27.5 mm x 11.0 mm
Weight	16.0 grams
Power supply	CR2450 button battery, not replaceable
Power consumption	0.3 watts (max.)
Operating temp. Range	-30°C ... +60°C
Storage temp. Range	-40°C ... +70°C
Ingress Protection Rating	IP65
Humidity (non-condensing)	0%~100% typical
UWB Radiated Power (CH2), (3774 – 4243.2MHz)	-41.3 dBm/MHz
FCC ID	2BFQ6TAG101

Battery life time

The operating time of the Iiwari CloudTag device without battery replacement is shown in the table below. The battery life time depends on the blinking rate and active moving time per day. Blinking rate is defined in the device software and it cannot be changed. The device is produced in two different blink rate versions. The CloudTag M1 version device blinks during movement once per second. The CloudTag M5 version device blinks every 5 seconds during movement.

TOTAL OPERATION TIME [YEARS]		Blinking rate (moving) [s]	
		1	5
Active time per day [h]	1	8	10
	4	5	8
	8	3	7
	16	2	5

Packing and storage

CloudTag devices are packed in a cardboard box. A maximum of 45 pcs devices are placed in a single layer. Each layer has its own tray on which to place the tags. Below is the image of the one tray. One cardboard box can contain several trays, so one box can fit several hundred CloudTag devices.



Figure 4. CloudTag devices packing.



Care and maintenance

The Iiwari CloudTag device is designed to last for several years under normal operating conditions. The following instructions should be taken into account to avoid causing damage to the device and will help you protect your warranty coverage.

- Do not try to open the case of the device
- Do not attempt to replace the device's battery.
- Keep the device dry. Do not wet it with any liquid.
- Do not use or store the device in extremely dirty and dusty conditions.
- Do not use or store the device in excessively hot or cold conditions.
- Do not paint the device.
- Exposing the device to actions such as dropping, knocking, violently shaking, or any form of harsh treatment can lead to damage.
- Do not clean the device with harsh solvents or other chemicals. Use only a clean and dry cloth when cleaning the device.
- Do not modify the product.
- Keep the device out of reach of small children.

5. Recycle and disposal

CloudTag device's disposal and recycling

Your CloudTag device contains a CR2450 battery and should not be disposed of with household waste. Dispose of your CloudTag device in accordance with local environmental laws and guidelines. Otherwise, please return the tag to your IT support. You may always send the tag directly to us using address:

Iiwari Tracking Solutions/ Tag Recycling
Nuaskatu 9, 87400 Kajaani, Finland



European Union—Disposal Information

The symbol above means that according to local laws and regulations your product and/or its battery shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product and/or its battery at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

6. FCC Regulatory Statements

Please take attention that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment is approved under Part 15.519 for handheld use. The use of antennas mounted on outdoor structures, e.g., antennas mounted on the outside of a building or on a telephone pole, or any fixed outdoors infrastructure is prohibited. Antennas may be mounted only on the hand held UWB equipment. UWB equipments may not be employed for the operation of toys. Operation onboard an aircraft, a ship or a satellite is prohibited.



7. CE Regulatory

Iiwari Tracking Solutions declares that this device is in compliance with the essential requirements and other relevant provisions of EU Radio Equipment Directive (RED) 2014/53/EU.

A copy of the Declaration of Conformity can be found at:

<https://www.iiwari.com/platform/>



8. Disclaimer

The content of this document is subject to modifications at any time without prior notification. Iiwari Tracking Solutions Oy disclaims any responsibility for inaccuracies or missing information and expressly denies any liability for loss, damages, or risks, whether personal or otherwise, incurred directly or indirectly from the utilization or implementation of any content within this document. For the most current version of the documentation, please reach out to Iiwari Tracking Solutions Oy.