



# QUUPPA

## QT3-1 Tag User Manual

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# Introduction

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The Quuppa QT3-1 (Quuppa Tag) is a tag that is compatible with the Quuppa Intelligent Locating System™. Other parts of the system are the Quuppa Locators and the Quuppa Positioning Engine (QPE) software. The Quuppa system allows you to locate and track any object equipped with a Quuppa Tag, a Quuppa compatible Tag or any Bluetooth enabled device emulating the Quuppa Tag, in an environment equipped with Quuppa Locators.

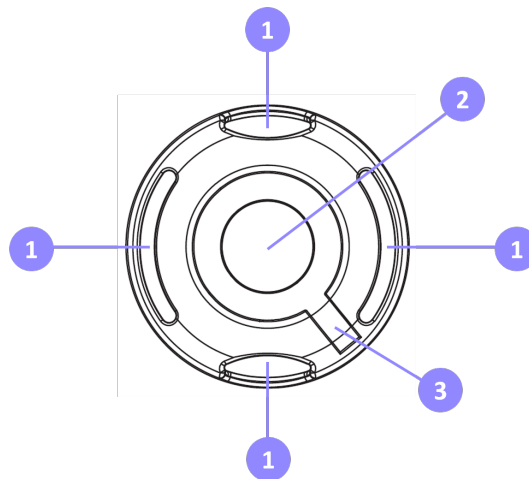
Read this guide carefully and watch the [Quuppa Academy](#) videos before starting to use the system. For the latest guides, additional information related to your Quuppa product, go to [quuppa.com/documentation](https://quuppa.com/documentation).

# QT3-1 Tag Features

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The Quuppa QT3-1 has the following features:

- 4 mounting holes (1)
- Button (2)
- Red LED (3)
- Waterproof casing
- 2.4 GHz radio SoC
- Accelerometer
- Pre-programmed with Quuppa Firmware



# Using the QT3-1 Tag

This section covers how to use the Quuppa QT3-1. Please note that the Quuppa QT3-1 is compatible with Quuppa system release 8.0 or above.

## General Instructions

### Activating the QT3-1

Before using the Quuppa QT3-1 you must activate it and configure it for your Quuppa system. To activate the tag, use the **Button Press** method, i.e. press the button for 1 second to activate the Quuppa QT3-1.

With the default configurations set for new QT3-1 tags, the tag will remain activated for 24 seconds after it becomes inactive before entering the storage mode again.

### Configuring the QT3-1

Tag configurations define the behaviour of the tags in your Quuppa system. For example, you can configure a tag to blink its LED light every time it enters a particular zone within your Quuppa system.

**Note:** The LED blink uses a relatively large amount of power and so we recommend that to conserve the tag's battery, you only use the LED blink when necessary.

New tags will be configured to use a default configuration. You can change this configuration to better suit the needs of your use case.

To apply a new configuration, make sure that the tag is activated and use one of the following methods to send the new configuration to the tag:

- **Quuppa Site Planner (QSP) and a Focusing Locator**
- **Quuppa Positioning Engine (QPE) API requests**

For more information, please refer to our product documentation available at [quuppa.com/documentation](https://quuppa.com/documentation).

### Attaching QT3-1 to a Locatable Object

Attach the Quuppa QT3-1 to a locatable object.

**Important:** For optimal operation do not attach Quuppa QT3-1 onto a large metallic surface.

**Warning:** Never attach Quuppa QT3-1 onto hot surfaces.

**Important:** Do not attach the Quuppa QT3-1 so that the button is permanently pressed down.

### Reset to Factory Settings

To reset the device to factory settings hold the QT3-1 button side up and press the button until the LED turns off (5 seconds). While still pressing the button, turn the QT3-1 button side down. The LED will start blinking. Keep the button pressed for another 10 seconds until the LED stops blinking and turns continuously on.

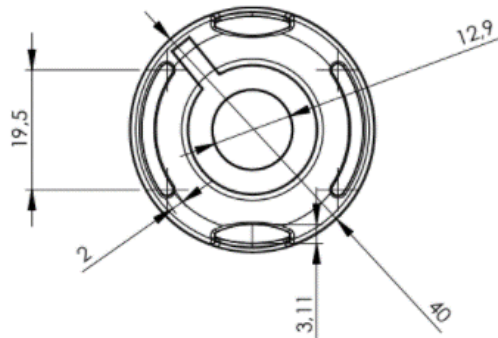
### QT3-1 2D Barcode

The backside of the QT3-1 includes a 2D barcode which contains the Tags ID number. The 2D barcode can be scanned for example with a separate 2D barcode reader or a suitable mobile phone app. You may need to select the setting “scan white barcode on black background” for optimal performance.

## Mechanical Details

### QT1-1 dimensions

Dimensions (mm), front view:



Dimensions (mm), side view:



### Waterproof casing

Quuppa QT3-1 has IP protection class IP68. This means that it's dust and water resistant and can be immersed in 1.5 meters of freshwater for up to 30 minutes.

### Battery

Quuppa QT3-1 has an in-built CR2354 battery. In normal operation the battery will last for several years. The battery voltage level can be monitored using the Quuppa system. Once the battery is discharged, Quuppa QT3-1 has to be recycled properly according to local regulations. Do not attempt to open the casing to replace the battery.

**Warning:** Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

## Technical Specifications

<b>Model number</b>	QT3-1
<b>Dimensions</b>	#: 40 mm, h: 11,2 mm
<b>Weight</b>	10 g
<b>IP protection class</b>	IP 68
<b>Operating temp. range</b>	0°C...+60°C
<b>Storage temp. range</b>	-30°C...+70°C
<b>Radio</b>	Silabs BG22
<b>Radio transmission</b>	Bi-directional
<b>Number of channels</b>	<b>Proprietary Mode:</b> 81 channels (1 MHz) but only one at a time (for Japan 80 channels) <b>BLE Mode:</b> 40 channels (2 MHz) but only one at a time
<b>Carrier frequencies</b>	<b>Proprietary Mode:</b> 2401 2402 ... 2480 2481 MHz (for Japan: 2402 ... 2408 2481 MHz) <b>BLE Mode:</b> 2402 2404 ... 2478 2480 MHz
<b>Max Output Power</b>	+6dBm
<b>Power supply</b>	CR2354 Due to waterproofing the battery is non-removable and non-rechargeable.
<b>Power rating</b>	3VDC 15mA
<b>Certifications</b>	CE, FCC, IC
<b>Functionality</b>	Button, LED, Accelerometer



**Important:** Quuppa devices should only be used in environments that fit the conditions listed in the above table. Exposure to more stress (e.g. operating the device in higher than recommended temperatures) may affect the reliability of the device or even cause permanent damage to the device.

## Packaging and Storage

The QT3-1 is shipped in a cardboard box. One box contains 5 pcs of QT3-1 and one overpack contains 10 such boxes, in total 50 pcs of QT3-1.

Please note the storage temperature ranges when storing the QT3-1. Please note that the device is sensitive to ESD and may be damaged by it.

## Care and Maintenance

Your Quuppa QT3-1 is a product of superior design and craftsmanship and should be treated with care. The following suggestions will help you protect your warranty coverage.

- Do not attempt to open the device.
- Do not sink the device in deep water (> 1.5 meters).
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device. Only use water and soap or a dry cloth to clean the surface of the device.
- Do not paint the device.
- Keep the device out of reach of small children.



# Recycling and Disposal

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Always return your used electronic products, batteries, and packaging materials to dedicated collection points. This way you help prevent uncontrolled waste disposal and promote the recycling of materials.



**Disposal of Electrical and Electronic Equipment.** This crossed-out wheeled-bin symbol indicates that this product should not be treated as household waste. Instead hand it over to the appropriate collection point for the recycling of electrical and electronic equipment in accordance with local environmental regulations for waste disposal.



**Disposal of Waste Batteries.** This product contains a battery. Do not dispose of them with other household waste. Instead, hand them over to the appropriate collection point for recycling. The battery does not contain Mercury (Hg), Cadmium (Cd) or Lead (Pb).

Ensuring proper product and battery disposal prevents potential negative consequences for the environment and human health. For more information, contact your city, the place of purchase, or [support@quuppa.com](mailto:support@quuppa.com).

# QT3-1 Tag Certifications

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The QT3-1 Locator has the following certifications:

- **FCC and IC Regulatory Statement (on page 11)**

## FCC and IC Regulatory Statements

### FCC Statement

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 has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

The equipment complies with RF exposure limits set forth for an uncontrolled environment. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

### Industry Canada Statement

This device complies with ISSED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. le dispositif ne doit pas produire de brouillage préjudiciable, et
2. ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

RF exposure related statements:

RF exposure warning: The equipment complies with RF exposure limits set forth for an uncontrolled environment. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Déclarations d'exposition aux RF liées / Avertissement d'exposition RF: L'équipement est conforme aux limites d'exposition aux RF établies pour un environnement non contrôlé. L'antenne (s) utilisée pour ce transmetteur ne doit pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.

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