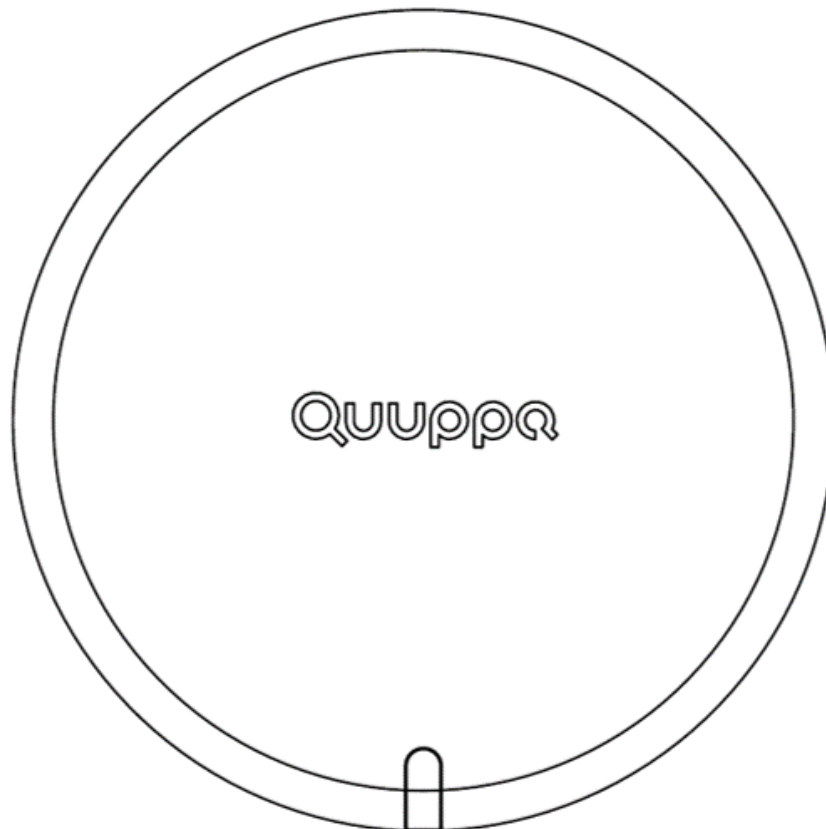# Quuppa Q17

Quuppa Locator

Installation Guide and Safety Information v.1.1

11.1.2019

Revision History

Version number	Changes	Date	Person
1.0	First version	18 Dec 2018	MV, SE
1.1	Added FCC and IC statements	11 Jan 2019	SE

Contents

Quuppa Q17 Installation Guide and Safety Information
Quuppa Oy, Keilaranta 1, 02150 Espoo, Finland

1. For your safety

Read these guidelines. Not following them may be dangerous or illegal. Read the complete installation guide for further information. In case of any questions, please contact support@quuppa.com.

WARNING   **SWITCH ON SAFETY**
Do not switch the device on when the use of wireless devices is prohibited or when it may cause interference or danger

INTERFERENCE
All wireless devices may be susceptible to interference, which could affect performance

QUALIFIED SERVICE
Only qualified personnel may install, configure, or repair this product

ACCESSORIES
Use only approved accessories. Do not connect incompatible products

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When connecting to any other device, read its user guide for detailed safety instructions. Do not connect incompatible   products.

2. Introduction

Quuppa Q17 (Quuppa Locator) is compatible with the Quuppa Intelligent Locating System. Other parts of the Quuppa Intelligent Locating System are Quuppa Tags and Quuppa Positioning Engine (QPE) software. The Quuppa Intelligent Locating System allows you to locate and track any objects equipped with Quuppa Tags in an environment equipped with Quuppa Locators. The Quuppa Q17 is designed for use in indoor environments.

Read this guide carefully before having the Quuppa Q17 professionally installed. Also, watch the Quuppa Tutorial and Quuppa Academy videos before starting to use the system. For the latest guides, additional information, and downloads related to your Quuppa product, go to Quuppa Customer Portal at https://secure.quuppa.com/.

3.   Parts
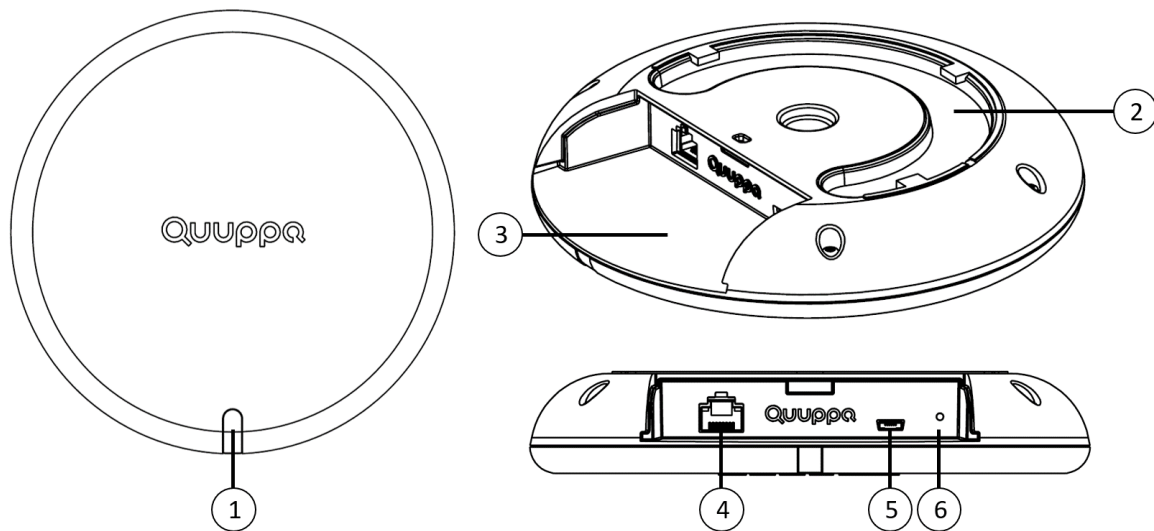
The Quuppa Q17 contains the following parts:
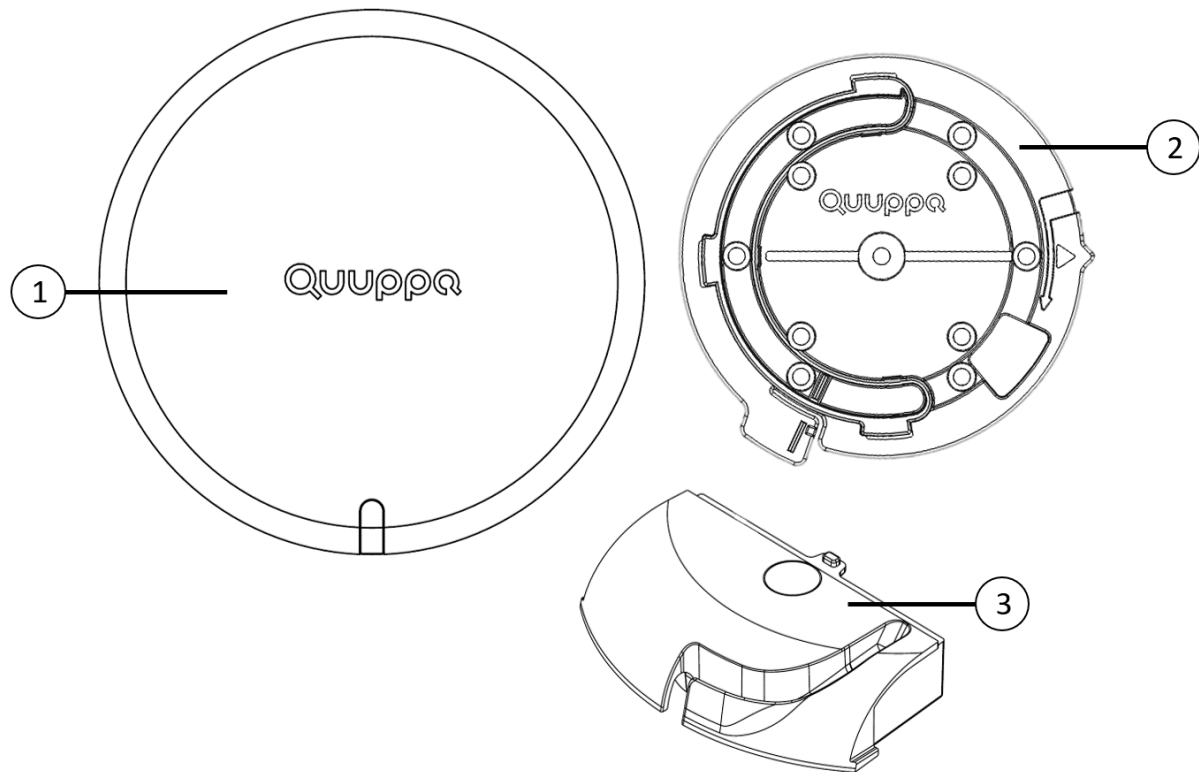
1. Quuppa Q17 main unit
2. Quuppa Q17 mounting bracket
3. Quuppa Q17 connector cover

3.1. Quuppa Q17 main unit

1. Indicator light
2. Bracket mounting channel
3. Type label
4. Ethernet connector
5. Micro USB connector
6. Reset button

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3.2. Quuppa Q17 mounting bracket
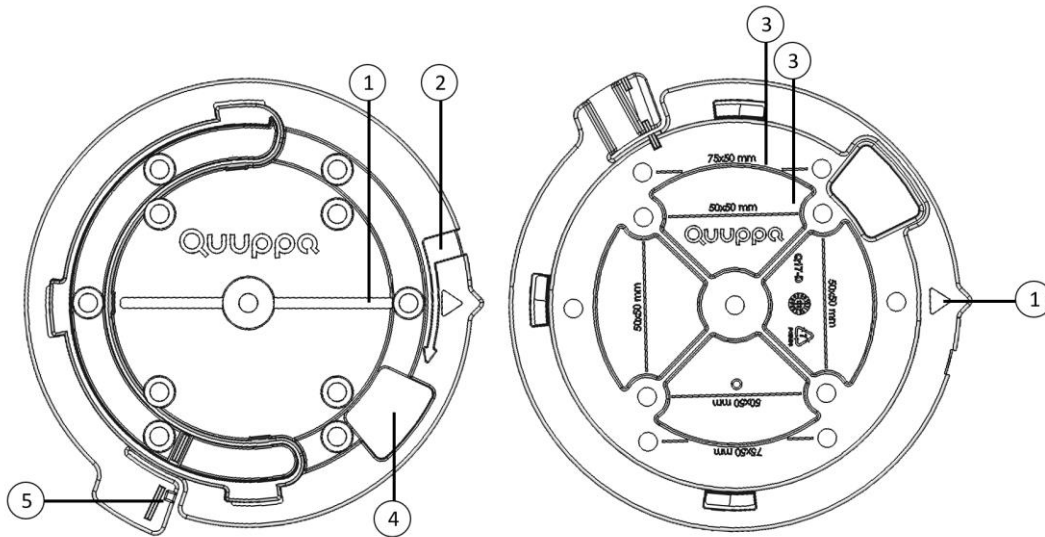
1. Orientation indicator and orientation guideline
2. Installation guide
3. VESA standard 75mm x 50mm and 50mm x 50mm
4. Cable passage
5. Locking mechanism

3.3. Quuppa Q17 connector cover
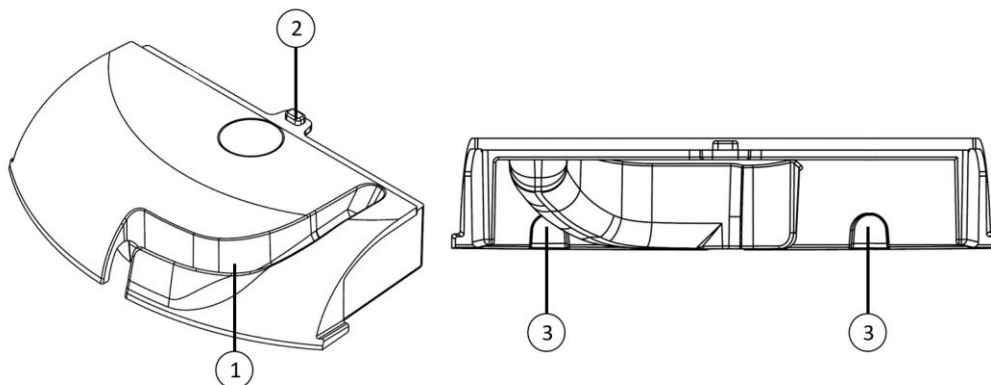
1. Cable channel
2. Locking mechanics
3. Optional cable passages for thicker cable

4. Safety Information

Observe the following safety guidelines when installing Quuppa Q17.

- Only a qualified service technician should install or service Quuppa Q17 using the approved original Quuppa parts supplied in the sales package. Faulty installation or service may be dangerous and may invalidate any warranty which may apply to Quuppa Q17.

- End users should remember that Quuppa Q17 comprises of complex technical equipment that requires professional installation using special tools and expert know-how.

- Instructions given in this guide are general guidelines that apply to the installation of Quuppa Q17 in an indoor environment. However, due to the wide variety of indoor environments and mounting surfaces, this guide cannot consider the individual technical requirements relevant for any particular installation. Consult Quuppa in case you are uncertain about installation in a specific indoor environment.

- Quuppa Q17 is designed to operate either by using a standard PoE (Power over Ethernet) compatible network component connected at the Ethernet socket or by Micro USB.

- For your safety, and to prevent any damage to Quuppa Q17, only use a compatible power supply. Contact Quuppa in case of any uncertainty regarding compatible power supplies. When using a PoE compatible network component as a power source, only use standard certified network components.

- Quuppa Q17 has in-built protection for overvoltage but a connection using the wrong polarity might damage the unit.

- When installing Quuppa Q17, make sure the installation surface can safely carry the weight of the equipment.

- Your service technician or dealer may be able to provide you with information on alternatives for mounting the equipment suitably in different types of indoor environments.

- Do not smoke when installing the equipment. Make sure there is no source of fire or flame nearby.

- Make sure cables are placed so that they will not be subject to mechanical wear and tear.

5. Using the Quuppa Q17
5.1. Installation

Quuppa Q17 should be mounted clear of any metal obstructions (such air-conditioning ducts, large ceiling trusses, building superstructures) to the side or front of the enclosure. In case needed, use a rigid conduit to lower the Quuppa Q17 away from these obstructions.

Install mounting bracket to the ceiling

The installation begins with the installation of the mounting bracket. The mounting bracket has several holes for mounting screws. Use at least 4 screws to ensure a stable installation. The recommended pattern is either VESA standard 75mm x 50mm or 50mm x 50mm which are both indicated on the mounting bracket.

Ethernet cable can be pulled through the cable passage on the bracket, if there is a need to hide the cabling.

The orientation indicator and orientation guideline in the mounting bracket may be used to align Quuppa Q17 according to a defined orientation in the environment.

WARNING	Never attach, mount, or connect the mounting bracket to hot surfaces. Always make sure that the surface can carry the weight of the equipment before installation.

Not following general safety regulation can cause damage to objects or injuries to people. Rely on qualified personnel for carrying out the installation of Quuppa Q17.

Install the Quuppa Q17 main unit to the mounting bracket

①

②

③ **'Click'**
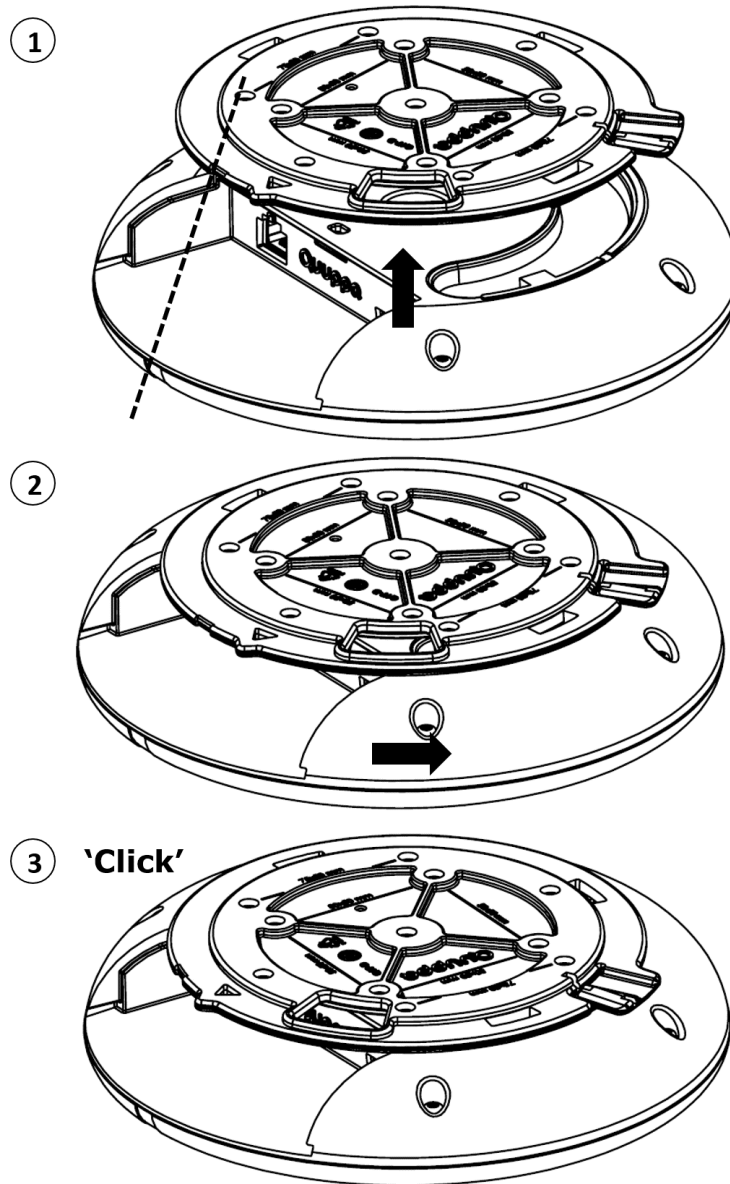
1. Attach the Ethernet cable and the Micro USB cable if that is used.
2. You may use the connector cover to protect the connector area from dust and dirt.
3. Align Quuppa Q17 main unit with the bracket by ensuring the installation guide in the mounting bracket is aligned with the indicator light on the Quuppa Q17 main unit **(1)**.
4. Lift Quuppa Q17 main unit so that the bracket goes into the bracket mounting channel **(1)**.
5. Rotate the Quuppa Q17 main unit **(2)** until you hear a 'click' **(3)**.

5.2.   Connect to power supply

Option 1: Use Power over Ethernet (PoE)

Quuppa Q17 supports the use of standard IEEE 802.3at PoE (Power over Ethernet) components, e.g. PoE switch or power injector, as its power source. Only use standard certified PoE devices. When using PoE, a separate DC power supply is not required.

Option 2: Use separate 5V DC Micro USB

If you are not using PoE components, connect Quuppa Q17 to 5V power supply with Micro USB. Only use compatible power supplies. Contact Quuppa in case of any uncertainty regarding compatible power supplies.

When the power supply is connected Quuppa Q17 automatically switches on. The red indicator light flashes multiple times, after which the red indicator light turns constantly on until the Quuppa Q17 is connected to the Quuppa Positioning Engine.

5.3.   Connect to network

Connect Quuppa Q17 to a network with Ethernet CAT5 UTP cable using the RJ-45 Ethernet socket. For your safety and to prevent any damage to Quuppa Q17, only connect Quuppa Q17 to standard certified network components.

The red indicator light is flashing slowly when Quuppa Q17 is properly connected to the network but not activated by the Quuppa Positioning Engine software.

Follow the Quuppa tutorials to configure your Quuppa Q17. The blue indicator light is flashing or constantly lit when Quuppa Q17 is activated by the Quuppa Positioning Engine software.

5.4.   Reset to factory settings

To reset to factory settings, press the reset button while connected to power supply and keep it pressed for approximately three seconds. The red indicator light flashes for a moment, then stays on for a moment and then turns off. After that the Quuppa Q17 switches on normally with the default factory settings.

6. Product Information

6.1. Q17 Mechanical Details

Q17 dimensions
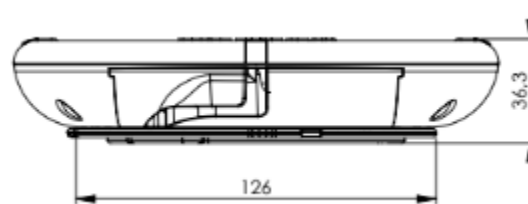
Picture 5: Dimensions, side view

Picture 6: Dimensions, top view

6.2. Technical Specifications

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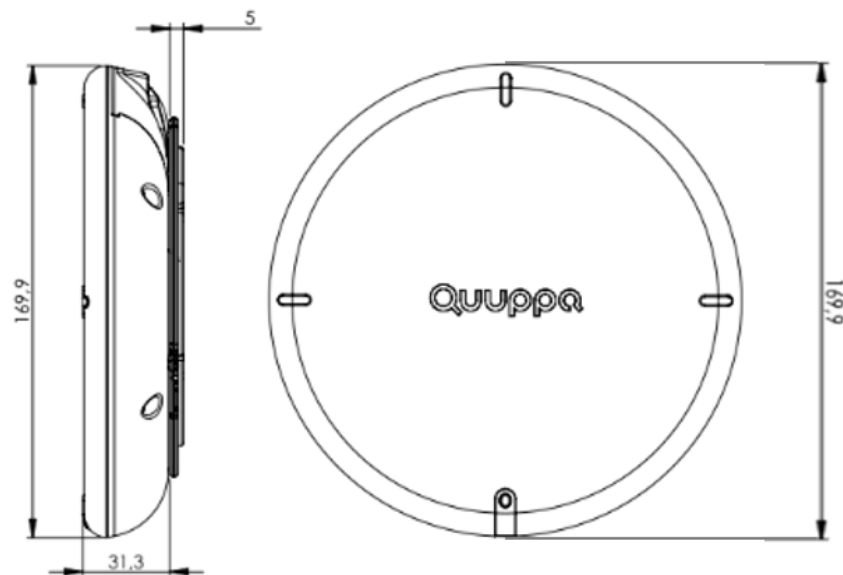| Item	Description
Dimensions Locator main unit	Ø: 170 mm, h: 31 mm
Dimensions Locator mounting bracket	Ø: 126 mm, h: 10 mm
Weight	390 g
IP protection class	No
Operating temp. range	0°C...+60°C
Storage temp. range	−10°C...+70°C
Carrier frequencies	2401 2402 … 2480 2481 MHz (Positioning radio) 2402 2404 … 2478 2480 MHz (Communication radio)
Power supply	48 V PoE (Power over Ethernet) or 5V DC (micro USB)
Typical power consumption	1 W
Certifications	Pending: CE, FCC, IC, Japan, Korea, Australia Has: UL

6.3. Packaging and storage

The Q17 is shipped in a cardboard box. One box contains 5 pcs of Q17.
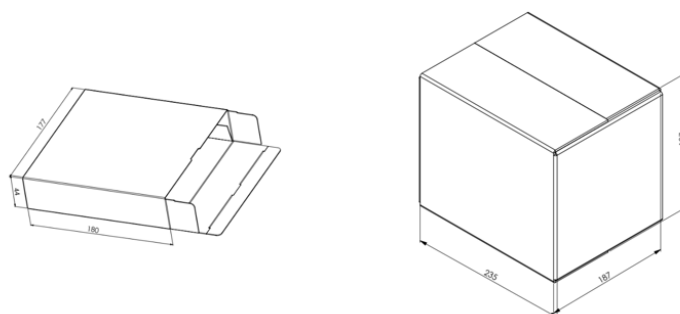
Picture 6: Packaging

Please note the storage temperature when storing the Q17. Please note that the device is sensitive to ESD and may be damaged by it. Do not store the Q17 in a humid environment.

6.4.　Care and maintenance

Your Quuppa Q17 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.
- Keep Quuppa Q17 dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits.
- Do not use or store Quuppa Q17 in dusty, dirty areas. Its moving parts and electronics components can be damaged.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device. Only use soft, clean, a dry cloth to clean the surface of the device.
- Do not paint the device.
- Keep the device out of reach of small children.

7.　Recycling and disposal

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.

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.

8.　FCC and IC Regulatory Statements

Model	FCC ID	IC ID
Q17	QE9Q17	10657A-Q17

Item	Description
Radio	Positioning radio
Radio transmission	Bi-directional
Number of channels	81 channels (1 MHz), only one at a time
Carrier frequencies	2401 2402 … 2480 2481 MHz
Modulation	GFSK
Max Output Power	2.5 mW
Antenna	Integrated printed IFA antenna with 0 dBi gain

Item	Description
Radio	Communication radio
Radio transmission	Bi-directional
Number of channels	40 channels (1 MHz), only one at a time
Carrier frequencies	2402 2404 … 2478 2480 MHz
Modulation	GFSK
Max Output Power	2.5 mW
Antenna	Folded dipole antenna with 0 dBi gain

The enclosed 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.

8.1. Industry Canada Statement

This device complies with ISED'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.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be chosen so that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Radiation Exposure Statement:
This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20cm between the radiator & your body.

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.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radio électrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20 cm entre le radiateur et votre corps.

8.2. 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 or more 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.

WARNING Changes or modifications not expressly approved by Quuppa could void the user's authority to operate the equipment.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

9. Japan (MIC) Regulatory

Model	Certified Number
Q17	020-XXXXXX (*the certification number will be included here*)

The Quuppa Q17 is approved for use in the Japanese market.

10. CE Regulatory

The Q17 has been tested for compliance with relevant standards for the EU market.

A copy of the Declaration of Conformity can be found at: www.quuppa.com/support.

11. Bluetooth SIG Qualification

(TO BE COMPLETED - qualification information will be included here)

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