

# QOCA Wearable BLE Thermometer

**Model : thermo02C**

Version: 3A

Quanta

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# SAFETY NOTES

- Please read through this user guide carefully before using QOCA WEARABLE BLE THERMOMETER.
- The QOCA WEARABLE BLE THERMOMETER is to be used for clinical assessment and personal reference only.
- The QOCA WEARABLE BLE THERMOMETER consists entirely of sophisticated medical electrical parts. Maintenance can only be carried out by professional technicians. Unauthorized disassembly of the device by the user is not allowed. It may cause malfunction if unauthorized disassembly of the device.
- The QOCA WEARABLE BLE THERMOMETER must be used with its specified accessories. The use of accessories from other brands can damage the device or cause inaccurate readings.

- Do not allow the connectors or contacts on the devices to come into contact with any kind of power source during use.
- Damaged or faulty accessories should not be used.
- When the QOCA WEARABLE BLE THERMOMETER is low on battery power, it will automatically stop taking measurements and the corresponding indicator lights will be blink.
- Avoid using devices that can affect the accuracy of the readings when the QOCA WEARABLE BLE THERMOMETER is taking measurements.
- Avoid using other electronic devices when the QOCA WEARABLE BLE THERMOMETER is taking measurements. If using another other electronic device is necessary, please check to ensure the thermometer is continuing to take measurements normally.

- Do not use the QOCA WEARABLE BLE THERMOMETER near open flames or in excessive heat. The changing environmental conditions may influence the body temperature measurement.
- Pay attention to ensure that the QOCA WEARABLE BLE THERMOMETER is not swallowed by pets or children.
- If QOCA WEARABLE BLE THERMOMETER must be used to take measurements over an extended period of time, please inspect the contact point of the thermometer at least once every 24 hours to make sure that the thermometer is in the right position and that there is no allergic reaction on the user's skin.
- Do not use high-frequency instruments or electrical medical equipment when using the QOCA WEARABLE BLE THERMOMETER.
- The QOCA WEARABLE BLE THERMOMETER can only take measurements while the subject

is at rest (e.g., while sitting or lying down) or engaging in ordinary activity. Any activities not permitted by the attending physician may affect the accuracy of the measurements.

- Do not expose QOCA WEARABLE BLE THERMOMETER to extreme temperatures, extremely moist environments, dust, or direct sunlight.
- Do not clean the QOCA WEARABLE BLE THERMOMETER with corrosive or abrasive cleaning agents.
- The QOCA WEARABLE BLE THERMOMETER and its accessories should be disposed of properly. Disposal of the device and its accessories should comply with the relevant local regulations.
- The QOCA WEARABLE BLE THERMOMETER has been tested and certified to international electro-magnetic compatibility (EMC) standards for medical equipment (EN 60601-1

and EN 60601-1-2). If abnormal behavior is observed due to EMC disturbances, please relocate the device accordingly.

- The expected service life of the QOCA WEARABLE BLE THERMOMETER is 1 years.
- People with sensitive skin or with known skin conditions should use the QOCA WEARABLE BLE THERMOMETER with caution. If irritation such as redness, severe itching or allergic symptoms (i.e. hives) develop, instruct patients to remove the QOCA WEARABLE BLE THERMOMETER immediately and have them contact their physician.
- Do not use QOCA WEARABLE BLE THERMOMETER on patients with known skin allergies or family history of skin allergies.
- Do not use QOCA WEARABLE BLE THERMOMETER in MRI or X-ray room.
- This device should not be used adjacent to or stacked with other equipment.



- Due to electrostatic discharge (ESD) sparks may cause sparks. QOCA WEARABLE BLE THERMOMETER is not suitable for use in an explosive environment.
- Avoid using heavy electronic equipment or other sources of electromagnetic interference (such as electric blankets) when using the QOCA WEARABLE BLE THERMOMETER.
- The device is intended for use by the person who are educated eight-grade or above.
- If re-use QOCA WEARABLE BLE THERMOMETER or its component, it may cause no stickiness or have inaccurate readings.
- To avoid low-temperature burn, please remove QOCA WEARABLE BLE THERMOMETER immediately when your temperature is over 41°C.
- If you change the setting value of the alert temperature, it will affect the time point of

QOCA vital+ APP notification, please confirm it before changing it.

- If using several QOCA WEARABLE BLE Thermometer in the same space, please unify the setting values of alert temperature to avoid information confusion.
- Whether it is restarting QOCA vital+ APP, restarting the smart phone, or even a sudden power failure of smart phone, the setting value of alert temperature remains the value set last time.
- When wearing QOCA WEARABLE BLE Thermometer, maintain a distance of at least 6 inches from the pacemaker.
- Do not use accessories which are not supplied or recommended by the manufacturer. Other accessories may negatively affect EMC performance.
- Household electronic devices such as humidifiers, heaters or microwaves, and so on

may be susceptible to cause interference with the device.

- Do not expose the device to strong electrostatic fields or strong magnetic fields to avoid inaccurate results.
- If abnormal behavior is observed due to EM disturbances, please relocate the device accordingly.
- Use of this device adjacent to or stacked with other devices should be avoided as it could result in improper operation.
- Any part of the monitor should be used no closer than 30 cm (12 inches) to wireless communication devices, such as networking devices, mobile phones, and walkie-talkies, or it can result in error display or inaccurate results.

## ● Precaution:

- Before using this product, please read the instructions carefully.
- When using this product, the user should try to remain in a resting state to obtain accurate body temperature information for reference by medical personnel.
- When it is necessary to use this product for an extended period, observe the adhesive area at the back of the patch at least every 24 hours to ensure the position of the adhesive and check for any signs of skin allergies in the person being measured.
- Do not use "shockers" or other related medical electronic devices while using this product.
- If stable measurement values cannot be obtained when using this product for measurement, stop the measurement immediately.

- After placing this product under the armpit with hands down for 5 minutes, a stable armpit body temperature can be measured.
- This product can only be used for measurement when the person being measured is at rest (sitting or lying down) or engaged in normal activities. Any activity not permitted by a treating physician may affect measurement accuracy.
- Do not use this product in high humidity environments. It can be used during showers, but do not immerse it directly in water.
- Do not clean or wipe this product with corrosive or abrasive cleansers.
- Dispose of this product in accordance with local regulations.
- Using this product near high-frequency communication devices may affect the accuracy of medical electronic equipment.

- If you experience itching or swelling when using this product, remove it immediately and stop the measurement.

# PRODUCT OVERVIEW

## Introduction

QOCA WEARABLE BLE THERMOMETER measures body temperature continuously. Installed the sensor to a dedicated holder patch and place it under the armpit, user can easily monitor their body temperature at home or at hospital. The measured body temperature can be transferred via BLE up to 14 days with embedded rechargeable Li-battery technology.

The device is operated by the person who are educated eight-grade or above.

# Product Contents

After purchasing QOCA WEARABLE BLE THERMOMETER, Please check the product package to ensure that the following items are included:

Items	Model Number	Quantity
Sensor	thermo02C	1
Charger	CR1	1
Holder Patch	thermo02C-P1	1
Quick Guide	NA	1

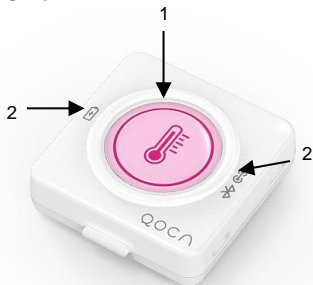
\* For purchasing holder patch, please contact manufacturer. (10 pcs/box)



# QOCA Wearable BLE Thermometer

(Model: thermo02C)

## Front View:



1

Power Key

2

LED Indicator

## Back View:



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1

Spring (contact to  
holder patch)

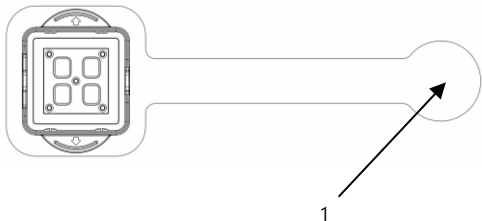
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2

Charging contact point

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## Holder Patch (Model: thermo02C-P1)

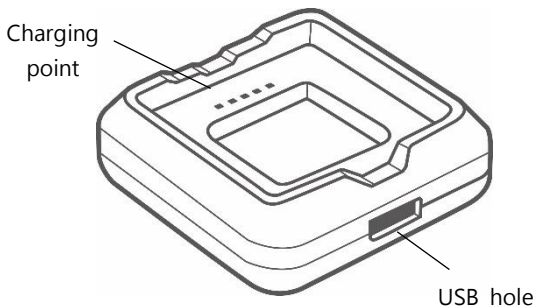


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1      stainless steel contact point

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## Charger (Model: CR1)

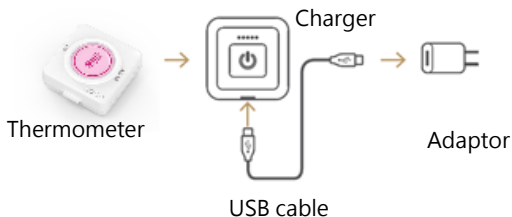


# GETTING START

## Charging QOCA Wearable BLE Thermometer

Please follow the charging steps to use QOCA Wearable BLE Thermometer :

1. Connect the charger with USB cable to an adaptor, which complied to IEC 60601-1 and IEC 62368-1 class II standards.
2. Place the thermometer on charger.
3. It is fully charged while the battery LED indicator in solid green.



## Bluetooth Pairing

Please follow the steps to pairing the thermometer.

1. Power on the QOCA wearable BLE thermometer
2. Launch QOCA vital+ APP and then enter to the pairing page of QOCA vital+ APP. Please select the device name follows the format "MHFXXXXXX".
3. Wear the QOCA wearable BLE thermometer

# Wearing QOCA Wearable BLE Thermometer (thermo02C)

Wearing this product require to attach the dedicated holder patch (thermo02C-P1) on the armpit.

*IMPORTANT : Please clean and keep your armpit dry before attach QOCA Wearable BLE Thermometer. We recommend that hair removal and skin exfoliation will help the contact of holder patch. And avoiding any activities that cause sweating during this period.*

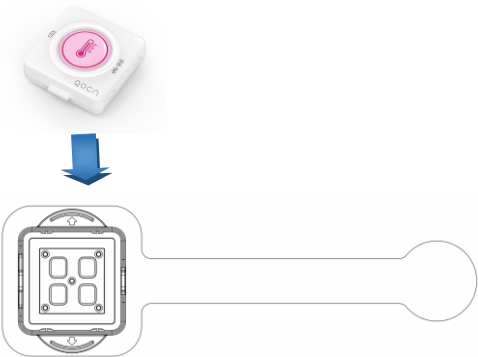
*IMPORTANT: If the skin at the contact point develops a rash, blisters, reddening, or other irritation, please contact a medical professional or physician.*

*IMPORTANT: Able to engage in daily activities, DO NOT do strenuous exercise, bathing or swimming.*

## A. Install QOCA Wearable BLE thermometer

Step 1: First, install QOCA Wearable BLE Thermometer on the dedicated holder patch\*.

\* DO NOT power on QOCA Wearable BLE Thermometer before install on the holder patch.





Step 2: Press the power button till QOCA Wearable BLE Thermometer flash green light\*\*. ( After power on, the status indicator "🌀" will keep flashing orange light. The orange light will turn off once it attach on armpit. )

**\*\* DO NOT touch the stainless steel contact point in front of the holder patch while QOCA Wearable BLE Thermometer is in power on process.**

## **B. Clean the skin**

Step 3: If there has hair under the armpit, please remove it before attach the deice. If no, please skip this step.

Step 4: Use alcohol pad to clean the skin and wait around 1 minute for drying.

### C. Attach the dedicated holder patch

Step 5: Remove the release paper of holder patch (thermo02C-P1).

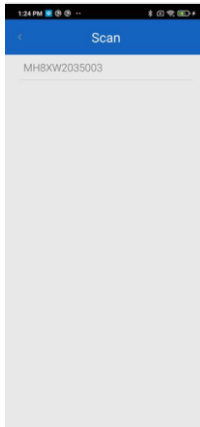
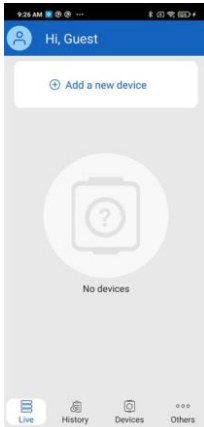
Step 6: Place the temperature measuring point under the armpit. And press the temperature measuring point at least 10 seconds till it's fully attached on armpit.

Step 7: The wearing of QOCA wearable BLE thermometer



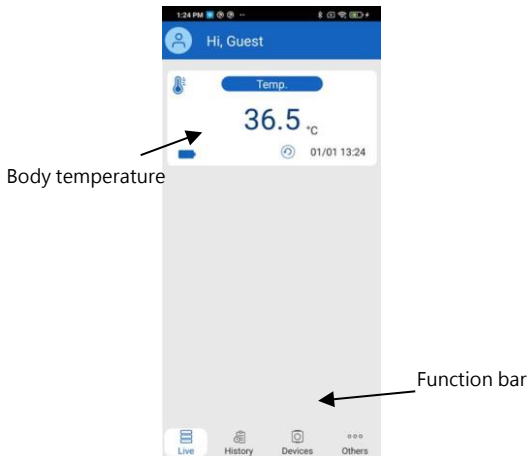
# QOCA VITAL+ APP

Launch the QOCA vital+ APP for connecting to QOCA Wearable BLE thermometer as below figures :



# Main Screen

The main page shows current measured temperature value:



# History

In history page, you can check the measured data.



Time	Temp. (°C)
2000-01-01 13:30:14	36.1
2000-01-01 13:29:14	37.0
2000-01-01 13:28:14	36.9
2000-01-01 13:27:14	36.8
2000-01-01 13:26:14	36.7
2000-01-01 13:25:14	36.6
2000-01-01 13:24:14	36.4

## Detail Information

User can check the following information: APP version, Firmware version, and device serial number. The measuring period, alter temperature value, and the temperature display unit also can be set in this page.

# OTHER INFORMATION

## The LED Indication

Event	Operation	LED Indication
Power on	Press power button for 1 second and then release the button	Both the status LED and battery LED flash green light. And after power on, the status LED will keep flash orange.
Power off	Press power button for 5 seconds	Both the status LED and battery LED in solid blue light till pressing button for 5 seconds to complete power off process
Device does not place on holder patch	NA	The status LED flash orange light (fast)

Patch off	NA	The status LED flash orange light (fast)
Low Battery	NA	The battery LED flash orange light
Bluetooth connected successfully	Launch QOCA vital+ APP and connect to device	The status LED flash blue light several times
Bluetooth disconnected	NA	The status LED flash orange light every 10 seconds
Charging	Place on charger	The battery LED flash orange light
Fully Charging	Place on charger	The battery LED flash orange light



## Maintenance

The QOCA Wearable BLE thermometer and charger are reusable components and should be cleaned by following the instructions. To clean the thermometer and the charger, wipe the device with a dry cloth or alcohol pad. And the holder patch is one-time use. DO NOT reuse it.

## Product Specification

Measuring Range	25°C ~ 42°C (77 ~ 107.6°F )
Resolution	0.1°C (0.1°F)
Accuracy	±0.1°C (±0.18°F), for body temperature range: 35.5 °C~ 42°C

	$\pm 0.2^{\circ}\text{C}$ ( $\pm 0.36^{\circ}\text{F}$ ), for body temperature range: $25^{\circ}\text{C} \sim 35.5^{\circ}\text{C}$
<b>Location</b>	Armpit
<b>Connectivity</b>	BLE 5.0 (Connection Distance: 10m at open space)
<b>Measured Frequency</b>	Default measuring period: every 60 seconds. (Note: Place it under the armpit at least 5 minutes to get a stable temperature value)
<b>Battery</b>	Lithium polymer, 350 mAh
<b>IP</b>	IP34
<b>Button</b>	1 button
<b>Indication</b>	Two LEDs
<b>Weight</b>	$12.7 \pm 0.5\text{g}$

<b>Size (mm)</b>	Thermometer : 30.7 x 30.7 x 9.4 ±0.5
<b>L x W x H</b>	Charger : 41.1 x 41.1 x 13.45 ±0.5
<b>Altitude</b>	2000m
<b>Working Condition</b>	5°C ~ 42°C, 10% ~ 95%, non-condensing
<b>Storage Condition</b>	-20°C ~ 60°C, 10% ~ 95%, non-condensing

## Bluetooth Specification

Items	Parameter
Operating Frequencies	2402~2480MHz
Channel Spacing	2MHz
Channel number	40
Modulation	GFSK
Antenna Gain	FPC Antenna, Peak Gain: -2.46 dBi

# Customer Support

For additional technical information, contact Quanta  
Customer Support Department :

Quanta Computer Inc.(QCI)

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Guishan Dist., Taoyuan City 333, Taiwan

TEL: +886-3-327-2345

FAX: +886-3-318-4207

Email: [QOCA@quantatw.com](mailto:QOCA@quantatw.com)



## Federal Communications Commission (FCC) Statement

15.105(b)

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."

"15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment."

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. For portable operation, this device has been tested and meets FCC RF exposure guidelines. When used with an accessory that contains metal may not ensure compliance with FCC RF exposure guidelines.



15.19

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.