

PRODUCT SPECIFICATION

Customer Name: _____

Product Model No.: TH02

Product Type: Magnetic 4 in 1 Wireless Fast Charger Dock

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1. Product Function

1. Wireless charging function introduction

This product realizes short distance radio transmission through magnetic induction mode, and adapts to PD protocol QC2.0 protocol double 9V 1.5A digital product charging and communication, furniture, fire, waterproof and other digital products. The product conforms to the Qi wireless charging standard. Mobile phones compatible with the Qi standard can use this product to charge, supporting the quick wireless charging function.

This product has unique appearance and wide working voltage (DC9V-12V). It is suitable for adapters that comply with PD protocol and QC protocol (PD protocol is preferred, 9V is the default value of this product when using PD adapter).

Features: maximum 15 watt output for two mobile phones (or 1 mobile phone +1 earphone) and a watch with an output of 5V 1A Type-C interface for digital products. It is perfectly compatible with apple 12 and 13. The charging process does not slide when using mobile phones. The platform can be used for earphones, mobile phones with wireless charging function without magnetic absorption function or other digital products. Compatible with Apple Watch 1-6 generation, power adaptive (that is, the adapter automatically adjusts the output power when the power is insufficient, but the charging effect will be affected)

When the device is fully charged, if the phone is not removed for a long time, the phone will keep the power at 100% (supplementary charging).

2. Basic Operation

Tips: The larger the deviation distance, the lower the charging efficiency. It is recommended to use QC protocol 9V 3A or PD protocol adapter and data line with current 3A or above, PD protocol adapter is preferred.

Usage: Connect the transmitter USB cable, the product works in fast wireless charging mode, supporting double 15W load.

If the object is iPhone 12, there is no need to align the device with automatic adsorption and pop-up charging. If the platform position is placed at the center of the receiving coil on the mobile phone end (anti-skid ring), the center of the transmitting coil is offset from the allowable distance ($\pm 3\text{mm}$). If the deviation is too large, the transmitter will not work, and the phone needs to be correctly placed again, and the device will re-enter the charging state. The watch can be placed directly in the charging position.

Indicator Light Description: for the first power on, the red, green and blue light flashes out for 3 times. The blue light flashes for 3 times when the phone is charging, and the green light flashes for 3 times when the charge is disconnected. There is no light indication for watch charging.

Touch Key Function: short (about 1 second) touch once, turn on the colorful circulating atmosphere light, short touch once again will stop in the current color, touch once again to turn off the light, long press touch (about 3 seconds) will turn on the 5V 1A output interface output red light flashing twice. Long press and touch again to close 5V 1A output red light flashing 3 times.

FOD Foreign Object Detection: when there is a metal foreign object, the blue and green light flashes alternately and will keep protecting until the metal foreign object leaves the charging range.

Disassembly and assembly method: 1 Assembly: align the gap of the pole with the protruding buckle of the base and press it gently. When feeling resistance, rotate it gently to the left for 15 degrees.

2 Disassembly: Rotate 15 degrees to the right, gently lift up (transportation needs)

3. Basic Parameter

3.1 Performance Parameter

3.1.1 TX Input voltage/currency: DC 9V/2.2A

3.1.2 TX Input current (no load): $\leq 0-150\text{mA}$ (scanning runout mode)

3.1.3 TX Output current: Single 15W Charging DC9V /1.67A Dual 15W Charging 9V/3.5A

3.1.4 Max Output for Watch: 500mA

3.1.5 Max Output for TYPE-C interface: 5V 1.1A

3.1.6 Efficiency (full load): $\leq 80\%$

3.1.7 15W Working Frequency: Variable frequency 110KHz -205 KHz

3.1.8 7.5W Working Frequency: Fixed frequency 127.7KHz

3.1.9 Ripple & Noise: $\leq 200\text{mVp_p}$

3.2.0 Working temperature: 0-40℃

3.2.1 Relative humidity: 10%~80%

3.2 Apparent Parameter

- 3.2.1 Size: 13.25CM(base)*16.5CM* (height)
- 3.2.2 Color: White+yellow wood grain, Black + silver grey
- 3.2.3 Materials: PC、ABS
- 3.2.4 What is in the box: 1M length 3A TYPE-C cable, Bilingual manual, color box
- 3.2.5 Input interface: TYPE-C (PD QC dual agreement) Output interface: TYPE-C
- 3.2.6 Usage: desktop

4. Electric Character

- 4.1 Average working trouble-free time: 20,000 working hours, average failure rate less than 0.5% at 25℃.
- 4.2 Aging test: normal temperature, full load aging time 24H.
- 4.3 No load test: output end no load, standby time 24H, electrical normal, no abnormal structure.
- 4.4 Load aging: DC9V, load current I=1500mA, aging for 24H, normal electrical properties, no abnormal structure.
- 4.5 Mobile phone test: the electrical property is normal, if the temperature rises, the charging current will be reduced.
- 4.6 Overvoltage protection: 15V
- 4.7 Overcurrent protection: when the receiving output is short-circuited, the transmission is switched to intermittent detection mode.
- 4.8 FOD foreign body detection: Stop power supply when metal foreign body is detected.
- 4.9 5V output current limit Max 1.2a overcurrent protection, load short circuit protection. Short circuit red, green and blue light flashing disconnect output until short circuit is removed

5. Charging range test

Automatic positioning adsorption of mobile phones, accurate docking and quick charging. The charging position of the platform is $\pm 3\text{MM}$, and the watch is magnetically charged without alignment.

6. Sensitivity Test

The first power on needs to wait for the light flashing, the host program start about 3 seconds.

Automatic adsorption mobile phone, accurate docking and quick charging, response time is about 2 seconds, different brands of mobile phone slightly different.

The response time of the watch charging is about 3 seconds (it depends on the electric quantity and the temperature of the watch)

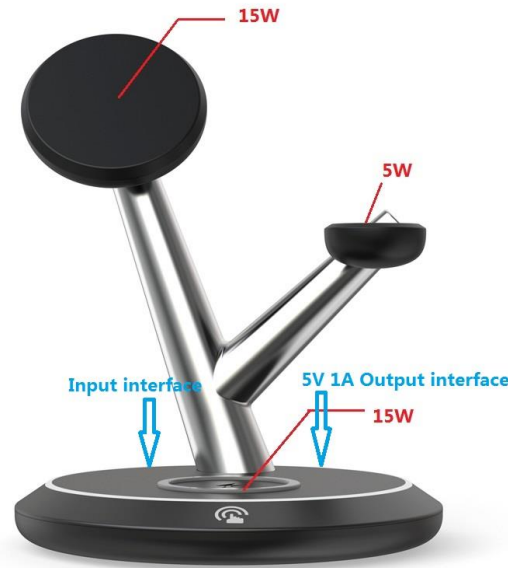
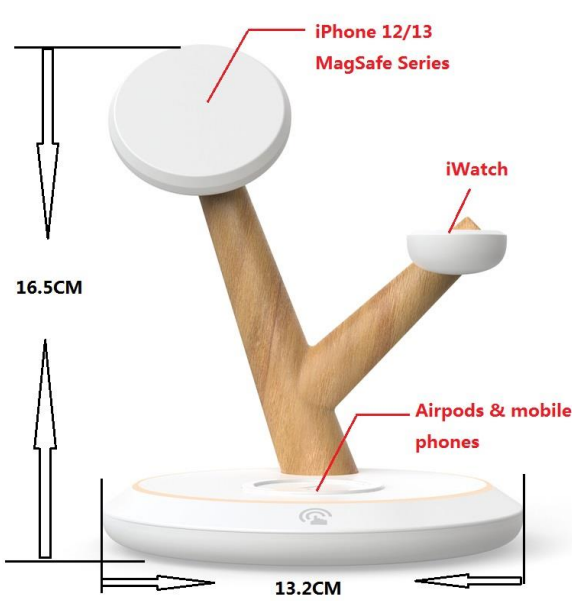
7. Reliability Test

- 7.1 High temperature storage test: the test temperature is $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$, and the continuous test time is 4H. After the test, the appearance and electrical properties are normal after being placed at room temperature for 4H.
- 7.2 Low temperature storage test: the test temperature is $-10^{\circ}\text{C} \pm 3^{\circ}\text{C}$, and the continuous test time is 4H. After the test, the appearance and electrical properties are normal after being placed at room temperature for 4H.
- 7.3 High and low temperature cycle test (impact) : the test temperature is $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$, the humidity is 90%-95%, the duration of the experiment is 1H, the low temperature is -10°C , the time is 1H, 6 cycles, after the test, the appearance and electrical properties are normal at room temperature for 4H.
- 7.4 High temperature working test: temperature 60°C , humidity 95%, working for 12H, check every 2H, room temperature 24H after the test, electrical performance and structure is normal.
- 7.5 Live work plug test: USB interface plug test, insert THE USB Type-C line into the USB Type-C base of the product (live), plug and plug 10 times /1 minute, the function is normal after 2000 times, the spring has good elasticity, no breakage, no poor contact, normal performance.
- 7.6 Low temperature working test: temperature -10°C , input DC9V, humidity 20%-30%, connected load working for 12 hours, check every 2H, room temperature 2H after the test, electrical performance and structure is normal.
- 7.7 Aging test: 9V aging 2H, full load aging, room temperature $25^{\circ} \pm 3^{\circ}$, aging load with indicator light.
Bad phenomenon: the shell can not have scratches, cracks, no output, voltage instability, shell melting and other bad phenomena.

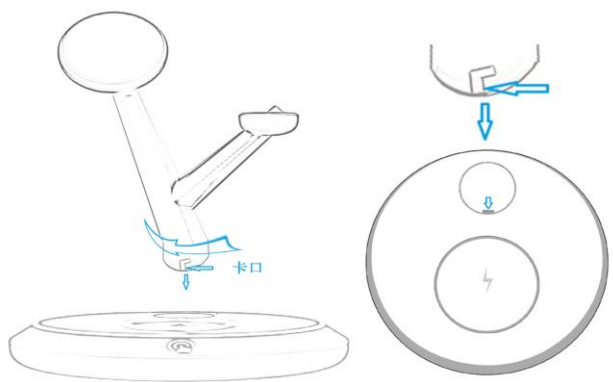
8. Automatic Protection Function

When the transmitter detects that the load current connected to it is too large (the current exceeds the rated output value), the transmitter automatically shuts off the connection with the receiver for automatic safety protection. If dual 15W charging at the same time, the adapter function is insufficient and will automatically adjust the applicable output power. If the device is removed for 5 seconds and placed correctly during charging protection, it can enter charging state again only after successful connection.

9. Product Outline



Attached is assembly diagram



FCC Warning

15.19 Labeling requirements

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.

15.21 Information to user

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.105 Information to the user

Note: 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.

FCC RF Radiation Exposure Statement:

1. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.
2. This equipment should be installed and operated with minimum distance 15cm between the radiator and your body.