

Shenzhen Huaju Xintong Technology Co.

Product Specification

File Code: HJ-HT1606017	Version: A/1.20	
Material Name: QC-01	Specification Model: HT1606-10W	Issue Date: 2025-7-31

Confirmation by the Division (TRX APPROVAL)				
Approval	Engineering	Production	Business	Company seal
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Modify history

Modification content	Participants	Version	Revision Date
Initial Version Release	Lam Pak Shing	V1.20	2025.7.31

Document after approval and then edit the need to indicate the modified item

number and content, labeling mode: new added items N + added items + content briefly

Modified item M+Modified item+Summary of content

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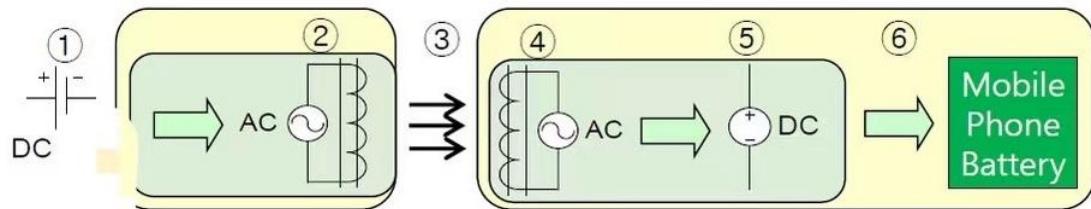
1 Overview

1.1 Scope of application

This product belongs to electromagnetic induction flat wireless charger, which realizes short-distance wireless energy transmission through electromagnetic induction, and is suitable for wireless charging of Samsung, Huawei, Xiaomi, **iphone** and other cell phones with wireless charging function, which eliminates the tediousness of wired charging. This product conforms to WPC alliance's QI 1.2.4&1.3 wireless charging standard, it can be used for wireless charging for all the receiving equipments which conform to this standard.

This product uses the chip program of Shenzhen Huaju Xintong Technology Co., Ltd, the thickness of the product is small, and it is easy to carry.

1.2 Working Principle Block Diagram



Working Principle:

1. Input external power supply
2. Wireless charging transmitting coil
3. Electromagnetic induction transmits current
4. Receiving coil (QI standard)
5. Circuit rectification and voltage stabilization
6. Internal charging of cell phone

1.3 Connecting the product to an external power source

Connects to PCBA via micro power cable using an adapter that supports QC2.0.

1.4 Product Compliance

The PCBA is environmentally friendly and free of chemical components such as mercury and cadmium.

2 General Product Performance

2.1 Input/Output Parameters

	Parameter
Input Port	micro Power cord
Standard Input	5V&9V
Output Mode	Electromagnetic wireless transmission
Standard Output	Wireless charging 5W&10W

2.2 Electrical Performance Parameters

Maximum Output Power	10W
Wireless charging frequency	110-205KHZ
Maximum output current	≤1.66A (15W load)
Standby current	≤80mA (average)
Rechargeable distance	2-4mm (axis-aligned distance between transmitter and receiver coils)
Wireless charging conversion efficiency	≥75% (9V input)
Horizontal maximum travel range	10mm from the center of the coil
Surface temperature	Ambient temperature +28°C
Operating Temperature Range	-30°C~80°C
Software Version	V1.2
Hardware Version	V1.1

Note: Conversion efficiency: the ratio of the input power to the output power of the power supply:

That is, the conversion efficiency of power supply= The instant output power provided by the power supply for the host computer/the instant power input to the power supply x 100%.

Electrical performance test:

Test conditions: Ambient temperature 24°C

	Test Conditions	Minimum Value	Rated Value	Maximum Value	Unit
Standby Mode Power Consumption	Vcc=5V	200	340	800	mW
Operating Frequency	Adjustment of load and distance	110	145	205	KHz
Operating Voltage	5W Output	4.5	5	5.5	V
	10W Output	9.5	10	10.2	V
Output Power	Fast Charge Mode	10	10	15	W
Working distance	bq51013xEVM test	2	3	4	mm

2.3 Protection Functions

Overcurrent protection	The current exceeding 2.5A stops the operation.
Overvoltage protection	Input voltage exceeding 13.0V stops operation.
Undervoltage protection	Input voltage lower than 4.2V to stop working.
Foreign object protection	Stop working if metal foreign object is found in charging position.

2.4 Description of receiver placement offset

Receiving coil placement offset from the center of the transmitting coil $\pm 2\text{MM}$ beyond the distance of automatic shutdown, the load is lifted and placed again (interval of 5 seconds) equipment reconnected to enter the charging state; the higher the bulkhead, the smaller the distance of deviation, the larger the distance of deviation, the lower the efficiency of charging.

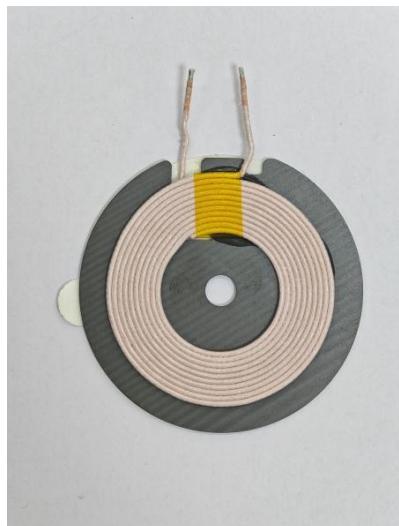
2.5 Heat dissipation conditions

The product is completely closed to natural heat dissipation to ensure the normal operation of the equipment.

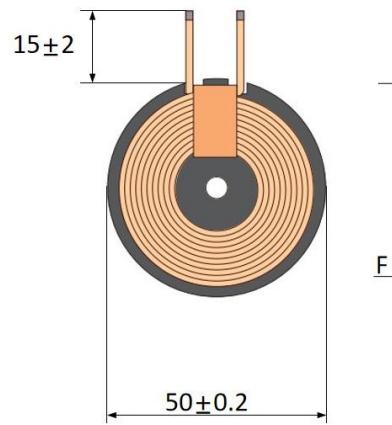
3 Product Coil Parameters

Temperature TEMPERATURE:25±10°C, Humidity RELATIVE HUMIDITY:65±20

Serial Number	ITEM	Terminal	STANDARD SPECIFICATION	Test conditions	TEST EQUIPMENTS
NO.	ITEM	TERMINAL		TEST FREQUENCY	TEST EQUIPMENTS
1	IND	S-F	Coil: 4.1UH±5%	1kHz/1V	LCZ METER 1062
2	IND	S-F	Coil with magnetic sheet: 6.8UH±5	1kHz/1V	LCZ METER 1062



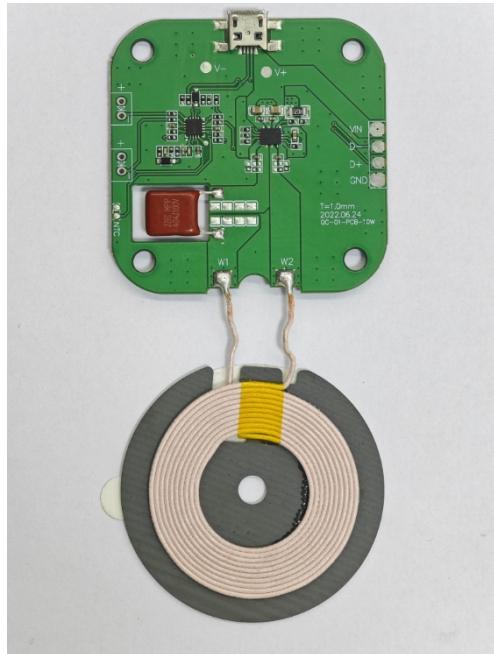
Physical drawing



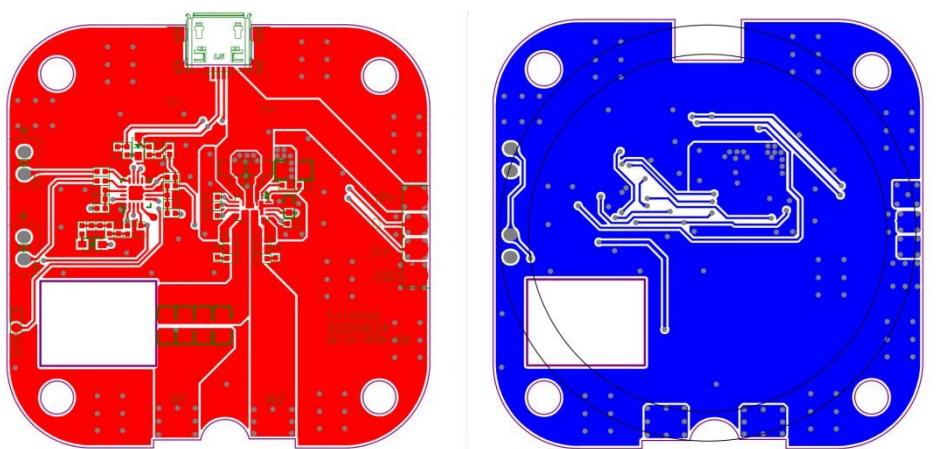
Model

4 Product Picture

4.1 Physical drawing of the product



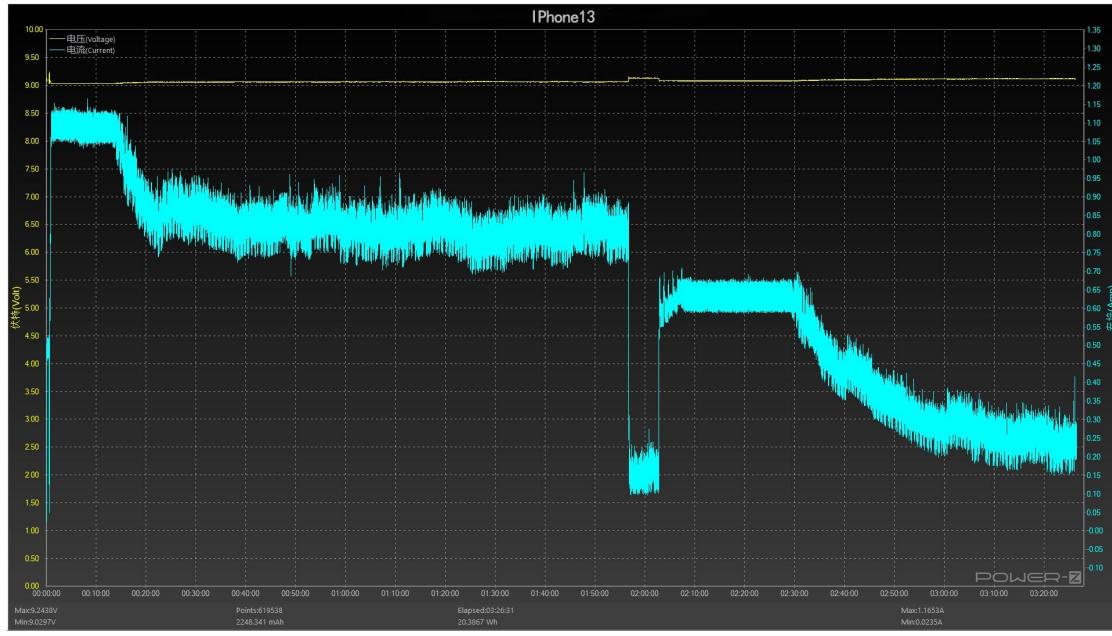
4.2 PCB LAYOUT



5 Charging test report

5.1 Charging time test data

iPhone13 cell phone, test environment temperature: 20 °C:



iPhone13 cell phone from 0~100% power, the time is 3 hours and 28 minutes charging results: OK!

iPhone12Pro cell phone, test environment temperature: 20 °C:



iPhone12Pro cell phone from 0--100% charge, use time is 3 hours 0 minutes

Charging result: OK

5.2 Cell phone adaptability test (sampling)

Ambient temperature 25 degrees:

Brand	Cell phone model	Charging time from 0% to 100% of battery capacity
Apple Apple	iPhone12Mini	3h11min
Apple Apple	iPhone13	3h 28min
Apple Apple	iPhone12Pro	3h 0min
Huawei HUAWEI	HUAWEI P30Pro	2h 50min
Samsung	GALAXY S20	3h 33min
Xiaomi		3h 22min

6 Packaging and Transportation

During transportation and storage to prevent damage to the product caused by heavy pressure, severe vibration and immersion. This product has included packaging to protect the wireless charger and accessories, can protect the product during normal transportation, if you need to return to the factory for repair, please return with the packaging, if the packaging is not proper and cause accidental damage to the product, not under warranty.