

PRODUCT MODEL	PRODUCT NAME	DOCUMENT NO.	VERSION	EFFECTIVE DATE
M20	REMOTE WIRELESS CHARGER	AK-RD-009	V1.2	2020/6/10

Specification for Remote Wireless Charger



Organization: _____ Verify: _____ Approval _____

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1、Basic product information and features

MODEL: M20

Wireless charging output: Maximum 5W 10W available

Wireless charging standard: QI

Safeguard: Built in intelligent chips effectively prevent overcurrent, short circuit, over temperature protection, etc;

Integrated power cable: UL2464 22AWG Black two-core cable, OD:4.0MM, brown and blue, 01 male at one end, 1.43m long.

Multi site application: home, hotel, coffee, restaurant, airport, etc;

Durable: Surface fine grain process, scratch resistant, wear-resistant and anti-corrosion

Charging distance: Maximum 25MM (The charging distance and sensitivity of mobile phones of different brands and models are slightly different)

Product color: Black

2、Basic parameters

2.1 Basic performance

Input voltage and current : DC12V-29V 2A

Output voltage and current : 5V/1A 9V/1.12A

Output power: Maximum 10W

Frequency: 110.5-205Khz

Conversion Efficiency: 50-70%

Launch distance: 10-20mm (The power supply distance of 12V-29V voltage is 10-20MM, the output supports 5-10W, the maximum output is 10W, and the output power is 5W when it is greater than 21mm)

2.2 Test environmental conditions:

All tests in this specification shall be conducted under standard atmospheric conditions

Temperature: 15 °C~35 °C. Relative humidity: 45%~75%. Atmospheric pressure: 86 kPa~106 kPa

2.3 Requirements for measuring instruments and equipment:

The accuracy of the voltmeter shall not be lower than class 0.5, and the internal resistance shall not be less than 10K Ω /V. The accuracy of the current measuring instrument shall not be lower than Class 0.5;

The constant current of the constant current load is adjustable within the range of the measured power supply voltage, and the relative error of the current is 0.1%

Test instrument: QI standard receiving piece (TI BQ5013B special receiving piece) The fast charging receiving piece is a micro special fast charging receiver load tester with stiffening core, and a 15MM thick diaphragm, Or YBZ tooling.

3、Installation and use methods (as shown in the figure below)

Take out the charger body from the packaging box. If it is installed on the glass or stone materials, tear off the double-sided adhesive tape and stick it in a proper position (The other colloids can also be added for more stronger.). If it is used on the wooden tabletop, the screws can be used to fix it from the middle holes of the ears on both sides of the product and the bottom of the table. Please select DC12V-29V adapter for power supply, and paste it directly on the desktop and above the wireless charging body to mark the area when charging.

The optional locator as following picture which is used to locate the desktop sticker position. And it is convenient to locate the center of coil. And also it can be directly measured the location with the wireless charging device. Try to locate the center position, as shown in the following figure.

4.3. 安装时可使用感应定位器在桌面相应区域进行微调定位（定位操作方法见下图），也可以直接用无线充电接收设备找出线圈中心感应区，便于充电时指明区域。商用买家可自行定制带有商家二维码的标贴贴在产品对应感应区域，也可联系卖家协助定制指定标贴。



操作说明：

如左图所示，将定位器放在桌面线圈大致感应区域时，按白色箭头所指3个方向微调位置，直至三个红灯均匀恒亮闪烁时即为线圈感应最佳区域，此时可用笔等尖物在定位器中心孔做上记号，再将标贴以此记号为中心贴上二维码标贴。

**木质桌底
安装方法**

- 1.根据充电器安装孔确定螺丝位置;
- 2.用螺丝穿过充电器的孔固定在桌底;



**玻璃、大理石
塑料桌安装**

- 1.撕开两边3M胶贴;
- 2.粘贴到桌底合适位置（可用尺子先量好）
电源线用透明胶或双面胶固定



Notices:

After the product is unpacked and powered on, please don't place the mobile phone directly on the product surface to prevent strong magnetism from damaging the phone. During the test, please try to keep the middle space more than 10mm. The temperature may be too high during using. And when the internal temperature exceeds 75 degrees, the charging will be suspended and the protection device will be activated. When the temperature drops below 45 degrees, it will automatically go to continue charging.



4、Safety regulations and insulation performance

4.1 Standby current

Standby current ≤ 50mA

4.2 Dielectric Strength

The input and output can bear 3000VAC; 50/60HZ; Sine wave voltage; The time of leakage current less than 10mA is 1 minute (due to 3500Vac 50/60Hz 5mA shall be used to test the relationship for 3 seconds) No flashover breakdown shall occur

4.3 Insulation impedance

Apply 500V DC voltage between input and output. The insulation resistance is less than 50MΩ.

4.4 Product safety performance

Project	Test conditions	performance requirement
Crash	Fix the product on the vibration table then vibrate for 30 minutes in X, Y and Z directions respectively, with amplitude of 1.6 mm, vibration frequency of 10 Hz to 55 Hz, and change of 1 Hz per minute	The product appearance should be free from obvious damage, crack, obvious scratch or damage

Drop	Drop the product from the height of 1m to the concrete floor twice	The appearance of the product should not be cracked or damaged
Constant hygrothermal performance	Place the product at a constant temperature of $40\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ with relative humidity of 90% ~ 95%, working under load with output 5V 1A for 2 hours. After the experiment, Put the product in the environment temperature of $20\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$ and have it to charge, observe the status and actual function.	The product appearance should be free of deformation and damage , charging function is ok.
Low temperature performance	Place the product at a constant temperature box with- $10\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ and Working under load with output After the experiment, Put the product in the environment temperature of $20\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$ and have it to charge, observe the status and actual function.	The appearance should be free of deformation and damages , charging function is ok.

4.5 Safety requirements

Product design meets environmental protection requirements.

5、Appearance parameters

5.1 Appearance (picture as below)

5.2 External dimensions

Length:105mm Width:80mm Hight:10mm



5.3 LED position

(Built in lamp for visual inspection only)

5.4 Housing material ABS+PC

6、Packing list

6.1 packing list:

Product main part (Include 1.5M long 4-core connecting wire)

Labels x2

Screws x2

6.2 Package size: 145mm*100mm*60mm

Net weight:

Gross weight:

6.3 Packing list:

Regular version list:

Packing quantity :48 pcs/ carton

Outer box size:53*29*37CM

Net weight:

Gross weight:

带吸盘资料:

Packing quantity :29 pcs/ carton

Outer box size:53*29*37CM

Net weight:

Gross weight:

7、Storage

Long term storage (more than 3 months), stored in a dry and cool place, the temperature range is from -10 °C to 40 °C, avoiding contact with corrosive substances, ignition source and heat source .

8、Product warranty and responsibility

Warranty period: 12 months after delivery

The company will not be responsible for accidents caused by failure to operate in accordance with this specification and product manual. The company will notify the customer, If there are any changing in this specification,

9、Warnings and precautions during use

- 9.1 If the adapter is smaller than a 12V adapter, it may not be able to charge or charge unstable. Please note the output power.
- 9.2 When using this product, please use a quality guaranteed adapter with DC 12V-29V 2A output voltage function
- 9.3 This product has over-current protection function. If the output power will be turned off or reduced due to improper use of the product, please check whether the equipment is abnormal or other improper use.
- 9.4 Do not put the product in water, fire, high temperature (>45 °C) and low temperature (<- 20 °C). Do not play with children, especially do not let children touch the accessories.
- 9.5 Do not disassemble or modify the product to avoid damaging the protective device of the product, which may lead to battery heating, fire or explosion.
- 9.6 Please do not throw, impact or rub the product violently, which may cause other abnormal phenomena such as dents, holes, cracks, deformities and corrosion. Please stop using the product immediately and contact the seller or manufacturer.
- 9.7 Please use a dry soft cloth to clean the surface, do not use chemicals, soap or detergent.
- 9.8 The user's incorrect use or placement of this product may lead to the reduction or damage of the product's service life. The resulting liability does not belong to the warranty liability or the manufacturer's liability. Please understand.
- 9.9 In the process of using the wireless charging function, it is prohibited to place metal objects such as magnetic conductivity above the wireless charging coil, which may lead to potential risks of object heating
- 9.10 There is a temperature protection device inside the equipment. When the internal temperature is higher than the set value (about 85 degrees) during operation. The system will stop working and continue to work when the temperature drops.

FCC Warning

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.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure Statement

To maintain compliance with FCC'S RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm between the radiator and your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.