

## **Smart massager product description**

This massager product is powered by a built-in rechargeable battery and does not require an external power source to be connected during use. Single key operation, providing power switch and forward/reverse control, as well as switch control for infrared heating lamp. Using Bluetooth wireless technology and WeChat mini App to achieve wireless control on mobile devices.

The USB-C charging port provides 5V/2A power to charge the internal battery of the massager.

Q8, Q9, D3, and external resistors make up input over-voltage protection. When the input voltage exceeds 6V, the power supply to the subsequent circuit is cut off to protect the subsequent circuit from being damaged by excessive voltage. After the input voltage drops to 5.5V, restore power supply to the main circuit.

The boost charging circuit is composed of U1 MCU, Q2, Q10, Q11, L1, D1, which charge the battery in CCCV mode. U1 MCU is the charging manager, Q10 and Q11 are MOS totem pole driving circuits, and L1, Q2 and D1 form the boost charging circuit.

The battery with the rated voltage of 11.1V is reduced to 3.3V through U2 (HT7533-1) to supply power to the main control of U1 MCU.

The U1 MCU is the system main control and Bluetooth BLE wireless transceiver chip, with an external X1 16M crystal oscillator, providing functions such as charging control, power on/off, massage operating control, heat control, indication, key control, Bluetooth transmission, etc. Bluetooth adopts BLE low-energy technology, combined with WeChat mini App, to achieve wireless control and setting of the massager with a mobile phone.

The motor drive circuit is composed of Q6, Q7, Q4, Q5. Q6 and Q7 are P+N dual MOS, forming the H-bridge driver of the motor to achieve forward and reverse operation of the motor. Q4 and Q5 provide high and low level switching for MOS, combined with control from U1 MCU, to achieve forward and reverse control.

The switch control of the infrared heating bulb is composed of U1 MCU, Q3, and other components.

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: 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 the party responsible for compliance could void the user's authority to operate the equipment

The devices has been evaluated to meet general RF exposure requirement , the device can be used in portable exposure condition without restriction