Product specification
Date: 2019.06.16

Entry name: HD16
Version number: 00.00.02

1、 Features

1. Non isolated buck power switch with high performance, high precision and low cost is adopted. The input voltage range is 85V AC ~ 265V AC, which is universal in the world and easy to stock.

2. Under voltage protection, over-voltage protection, over temperature protection, cycle by cycle over-current protection and short-circuit protection. Perfect protection function ensures the reliability of the system.

3. The safety tube is used at the input end to further ensure the product safety. (some peers use resistance instead of fuse)

4. It adopts high performance MCU and built-in EEPROM to save user configuration information. The peripheral circuit is simple and reliable.

5. High receiving sensitivity, general shell can reach - 110dBm

6. Transmit power up to 10dB

7. Long distance, more than 100 meters in open space

8. Modulation mode: 433.92mhz ASK

9. Thirty eight six chord tracks

10. The waiting current of transmitter is very low, less than 2uA

2.Operating instructions

1.Remote control matching

Press the music + and Vol keys at the same time, and the LED lights up to enter the pairing mode. Press the remote control to be paired. If the pairing is successful, the LED at the receiving end flashes once and saves the pairing information.
After 40 seconds, it will automatically exit the pairing mode.

2.Delete remote control pairing

Press and hold the Vol key and all pairing information will be cleared automatically after 5 seconds.

3.Use of remote control

Install the battery of the remote control, install the receiving terminal, and match it according to the above method (it has been equipped at the factory and can be used directly). Press the button on the remote control, and you will hear the music. If you are not satisfied with the music or sound, you can refer to the following method settings.

4.Set the music purpose

There are 38 tracks in total. Press the music + track key once to switch to the next track, and press the track key again to return to the first track. Each time you press the music track key, you can switch to the previous song, and then press the track key again to return to the next song.

5.Setting of volume

The volume is divided into 4 levels. Press the volume key to switch different volumes.

- 1. Electrical parameters
- Receiver:

Standby current	< 60uA(220V AC)
Working current	< 5mA(220 AC)
Working frequency	433.92MHz GFSK
Receiving sensitivity	-110dBm
Track data	38
working temperature	-20 ~ 85 °C
working voltage	85V AC~265V AC

- Transmitter:

Standby current	< 2uA
Working current	< 15mA
Working frequency	433.92MHz GFSK
Transmitting power	> 10dBm
working temperature	-20 ~ 85 °C
Battery type	CR2032
working voltage	DC 3V

1.Test mode

In order to speed up production and save cost, a test mode was designed in the design.

2.Power test

Take off the battery, press the remote control and do not put it on. After the battery is installed and powered on for 2 seconds, the LED flashes three times, indicating that it enters the power test mode. At this time, the remote control has a frequency of 433.92mHz, which is often transmitted. You can view the frequency and power values through the spectrum analyzer, and press any key to exit the power test mode.

1. Update records

time	edition	Change content	Modified by	to examine
2020.5.18	V0.1	FIRST COMPILATION	Meiying Bian	
2020.06.16	V0.2	ADD SCHEMATIC DIAGRAM AND MODIFY OPERATION METHOD	Hongxian Chen	

FCC Statement

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.

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

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.

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