## **User Manual**



**Product Name: Portable 2.4G Digital Wireless Microphone** 

Model No: TF-103

**Company Name: TWINKLE** 

Date: 2011-08-23



### **Setup Guide**

- 1. Put AA battery 1.5V 2 pcs in the MIC as Graph1 and close the battery cover.
- 2. Press the black bottom on MIC to turn on power as Graph 2 and then the green LED will flash slowly.
- 3. Connect audio out jack on the receiver to the stereo amplifier.
- 4. Connect power supply to power jack on the receiver as Graph 3 and then the blue LED light will flash slowly.
- 5. First press the blue bottom on the MIC for two seconds and then do the same procedure on the receiver to pair MIC and the receiver. The LED lights will flash quickly while pairing process.
- 6. When the LED lights on MIC and the receiver are on, the pairing process is successful.
- 7. Just enjoy wireless MIC set after successful pairing.



(Graph 1)



(Graph 2)



(Graph 3)

# Specification

## **Wireless Microphone Transmitter**

Operation Frequency Range	2400 ~ 2483.5 MHz		
	2.4GHz ISM Band	Hopping mode	
ID code setting	Auto Pairing by Tack Switch		
Modulation Type	GFSK		
RF Output power	6dBm (typ.)		
RF Sensitivity	- 80 dBm (min.)		
Supply Voltage	3V (1.5 V AAA Battery X 2 PCS)		
Supply Current	70mA (max.)		
Power ON / OFF	By Tack Switch		
Transmission range	30m (min.)		
Operation Temperature	0 ℃ ~+50 ℃		
Dimension	144mm x 25.4mm x1.0mm		

### **Wireless Microphone Receiver**

Operation Frequency Range	2400 ~ 2483.5 MHz		
	2.4GHz ISM Band	Hopping mode	
ID code setting	Auto Pairing by Tack Switch		
Demodulation Type	GFSK		
RF Sensitivity	- 80 dBm (min.)		
RF Output power	6dBm (typ.)		
Audio Frequency Response	20 Hz ~ 15 KHz		
Audio Output Level	460mV (typ.) @ 600mV Audio Input		
Supply Voltage	9V DC		
Supply Current	80mA (max.)		
Audio Output Connector	3.5Ф & 6Ф		
Operation Temperature	0 °C ~ + 50 °C		
Dimension	50mm x 53mm x1.0mm		

#### **Mapping Table**

Search for 28CH	Frequency(MHz)	Search for 28CH	Frequency(MHz)
CH0	2408	CH14	2450.5
CH1	2425.5	CH15	2468
CH2	2443	CH16	2418
CH3	2460.5	CH17	2435.5
CH4	2410.5	CH18	2453
CH5	2428	CH19	2470.5
CH6	2445.5	CH20	2420.5
CH7	2463	CH21	2438
CH8	2413	CH22	2455.5
CH9	2430.5	CH23	2473
CH10	2448	CH24	2423
CH11	2465.5	CH25	2440.5
CH12	2415.5	CH26	2458
CH13	2433	CH27	2475.5

#### **Federal Communication Commission Interference Statement**

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 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.

  This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1)

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This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

#### **IMPORTANT NOTE:**

### FCC Radiation Exposure Statement :

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

"This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance. "

