WS-DIAL

Wireless Two-Way Voice Transmission



WENSHING Confidential
Do Not Reproduction

Version History

Version	Date	Changes
V1.01	Jun.07, 2008	1st Edition
V1.02	Nov. 22, 2008	2nd Edition

Content

Important Event.....3
- Declaration 3
- Warranty.....3
- Un-warranty Scope Description.....3
- Contact Us.....3

Product Description.....4
- Brief Introduction.....4
- Functional Block Diagram.....4
- Brief Description.....5
  - Power.....5
  - Headphone Jack Port.....5
  - Mini-USB Port.....5
  - Keys.....5
  - LED Indicator.....5
- Accessory.....6
  - Min USB line.....6
  - Earphone.....6
- Electrical Characteristic.....6
- Light Description.....7
  - Charge.....7
  - Standby.....7
  - Communicate.....7
  - Calling notice.....7
  - Insert headset microphone.....8
- Operation Description.....8
  - Set group.....8
  - Group calling.....8
  - Change communication.....9
  - Withdraw from the call.....9

The Reason of Un-Communication.....10

CE Statement (European Union).....11

FCC Statement (U.S.A. Only).....11

WENSHING Confidential
Do Not Distribution

Important Event

- This product is in general use for the equipment on the premise of the development, design, manufacture. Do not use that require high security purposes, such as machinery or medical, aviation equipment, machinery and transport-related deaths are directly or indirectly related to the system.
- This product should be in this brochure by the instructions of the types and rated voltage power under the current proper use. If violation of this statement by the safety records of the supply operation, I am afraid our company cannot afford any of the responsibility.
- Do not self-decomposition, alteration, repair of the products also will cause fire, electric shock, fault, and dangerous. In addition, their decomposition, alteration, repair the product, failure is not within the scope of warranty.
- The products are not waterproof, so please do not use and touch water. Take off and on also please note. Rain, spray, drinks, steam, sweat may be a failure.
- Use of this product, please be sure to use according to the statement recorded by the use of methods to operate. Please do not violate particular attention to the matter reminded to use.
- Please respect this statement recorded by the note. When consumers in contravention of this statement recorded note of the operation, I am afraid our company could not shoulder any responsibility.
- Products are defective, the Company will be responsible for free to amend the flaws, or to the same flawless product or its equivalent products in exchange. However, the Company does not assume based on the requirements of the flaw and loss responsibility.
- The Company reserves the right to retain without notice to users of the cases, the product of hardware / software (version upgrade) is with the right to edit.

Declaration

This product provides different frequency for user selection to meet different telecommunication regulation and FCC/CE on different countries.

Warranty

The warranty time is within one year from purchased date. The warranty scope are used in normal situation and none vandalism. (Some function harmful out of warranty scope and Vandalism are Un-warranty).

Un-warranty Scope Description

- Because the natural disaster, accident or human factor to cause the bad damage.
- Violate the product instruction manual to cause the damage of the products.
- The improper assemble causes damage.
- The products used the unsanctioned accessory to cause damaged.
- Overstep the allowed used environment to cause the products damaged.

Contact Us

WENSHING ELECTRONICS CO., LTD.
No.82, Chong De St. 11054 Shin Yi Dist, Taipei, Taiwan
Tel: +886-2-27353055
Fax: +886-2-27328813

WENSHING Confidential
Do Not Distribution

Product Description

Brief Introduction

Dialogue device is wireless two-way voice transmission products and it takes 925~928MHz. Mainly provide wireless two-way voice transmission and includes a complete RF and audio circuits, particularly suitable for short-range two-way conversation, health and walkie-talkie service, call systems, the use of a wide range.

Built-in 3.5 mm standard audio hole, as long as the headset insertion and machine will automatically detect and switch to the voice calling feature. It has three modes as followings:

- One-on-one: the two sides can conduct two-way conversation.
- One-to-many: group for this device of broadcasting function, it may join the call. Groups of the remaining aircraft will remain unchanged devices to listen to the state, until one side to withdraw from the call, before entering the mode of two-way conversation.
- If machine is not plugged headset, you can switch through the built-in shock, reminded users of the call, in the case of one-on-one call each other.

Functional Block Diagram

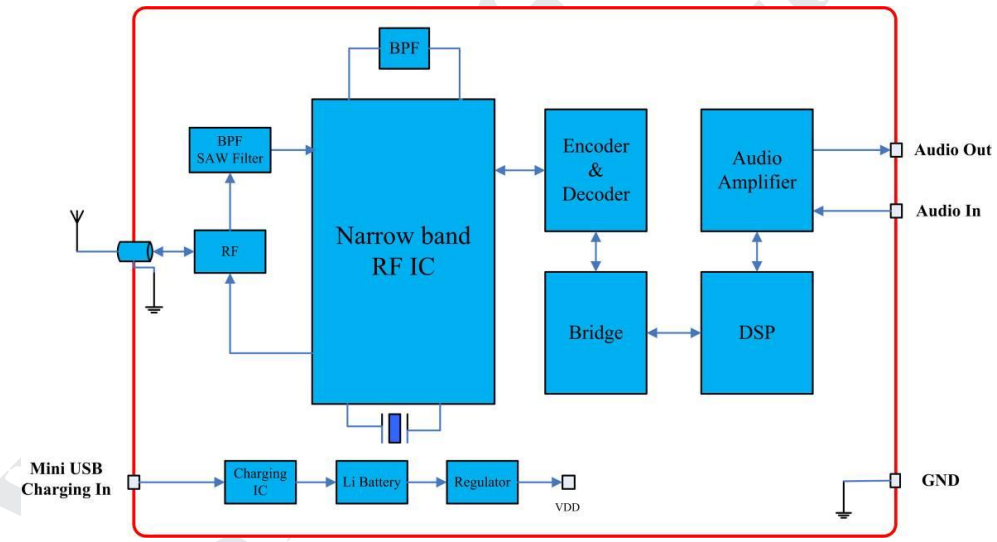


Figure 1 Dialogue of functional block diagram

Dialogue had a complete collection of RF transceiver circuit and interface, as Figure 1, the function block diagram and has major component of: DSP processor, RF circuit, charging circuits, lithium batteries and audio amplifier, built-in antenna. It can charge by USB line.

On fingure1, red box for internal device is the various components of the motherboard. It is the interface which is sending transmission by wireless of device, and there are instructions light for all situations.

Confidential

Brief Description

- Power Button: power to open and close function.
- Headphone Jack Port: 3.5 mm-standard audio, external headphone and the group broadcast a call or two.
- Mini USB Port: the use of mini-USB cable between the computer charge.
- Keys: when it is standby, press the call function and it will be executable (Insert the headphone when executable broadcast features); when it is called, please press and you can cancel the vibrating alert (Insert the headphone when executable two-way conversation function).
- LED Indicator: various state and signals tips.



Accessory

- Min USB line:



WEN SHING Confidential
Do Not Distribution

- Headphone:



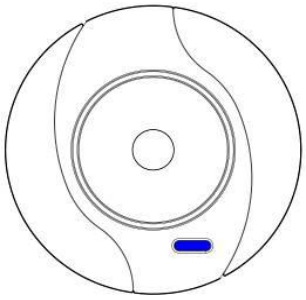
Electrical Characteristic

Item	Specification	Remark
Power	320mAh Lithium batteries	
Frequency	925~928MHz	
Output Power	10mW	
Distance	Open space ≧100m	
Channel	4800	Channel span 12.5KHz
Sensitivity	-110 dBm	Packet error rate:1%
The longest standby time	Over 120 hours	
Continuous talk time	Over 10 hours.	
Charging time	1.5 hours.	
Current consumption	Standby：3.5mA Calling：15mA Talking： 36 mA Vibration 60mA	
Action temperature	-10°C ~+70°C	
Storage temperature	-20°C ~+45°C	
Relative Humidity	≦60％	
Dimension	47 × 47 × 22 mm	
Weight	22.8 g	

WENSHING Confidential
Do Not Distribution

Light Description

- Charge: when device charges by USB, the blue light will shine; blue light will off when charge is finished.

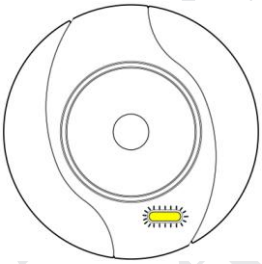


Charge

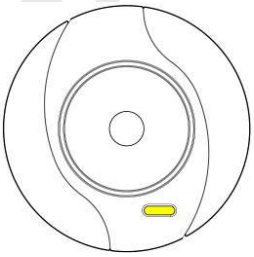


Finished

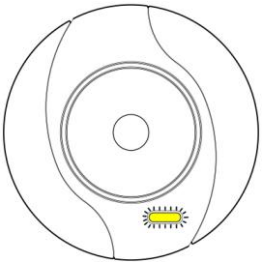
- Standby: yellow light will be flashing ever 5 second when device is on standby status.



- Communicate: when device is on phone, yellow light will be constant flashing.

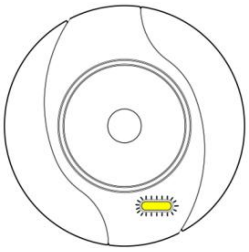


- Calling notice: when device is called, yellow light will be flashing every second.



WENSHING Confidential
Do Not Distribution

- Insert headset microphone: when you insert the headphone into device, yellow light will be flashing for two seconds and then will be extinct.



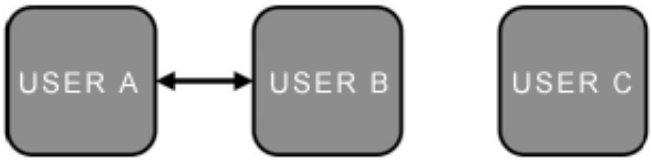
Operation Description

- Set group：
  1. Holding down the button link and turn it on. When the lights turn on around three seconds, device will start to vibration and please release button. At this time, host will start to search useable channel and finish the set then vibration again when it finished the setting.
  2. Please repeat above steps on second and third devices and so on.
  3. Please don’t turn off the power of first device; it just can set other devices in the same group.

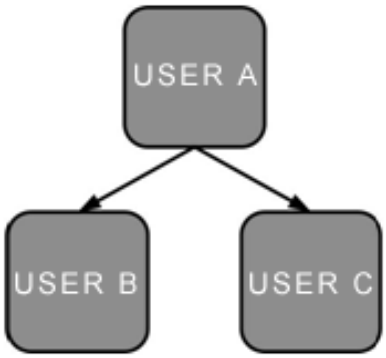
- Group calling:
  1. Headphone is not inserting: press the key of device, and others devices will be vibrate and yellow light will be flashing to remind other user is calling and the called can press the key to cancel the vibration and yellow light flashing of device.
  2. Insert headphone: when the device is inserted to headphone and it can start to broadcast after you press the key, meanwhile, other users also can hear the broadcast if they also insert the headphone. If they didn’t insert the headphone, user’s device will remind user that there are still others users calling now by vibration and yellow light flashing. Please insert headphone, you want to hear the broadcast. If you want to talk with others, please press the key and this device can provide two-way communication, and others are keeping hearing broadcast mode.

WENSHING Confidential
Do Not Distribution

- Change communication：when there are over 3 persons, you can change to communication.
  1. User A want to talk with user B, user C will just can hear the broadcast only:



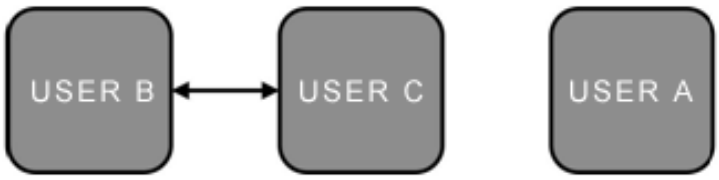
  2. User A want to talk with user C, user B needs to press the key and user A needs to back to broadcast.



  3. User C just needs to press the key and then can start to talk with user A, user B keeps hearing broadcast only.



  4. When user C needs to talk with user B, user A presses the key and back to hear broadcast, user B just can press the key to talk with user C.



WENSHIN Confidential
Do Not Distribution

- Withdraw from the call: just press the button to call both sides to with draw from the call model, and go into standby mode.

The Reason of Un-communication

- Instruction light: please check the power is on or not.
- Can't boot: please recharge sub-machine and try again.
- Talking without any voice from headphone: please check headphone insert into the port or not.
- The voice become smaller: Please check the online headphone volume is adjustable switch.
- When the other side can not hear the call: make sure whether the response to press the button.

WENSHING Confidential
Do Not Distribution

CE Caution Note (European Union)

Symbol of CE it accords with EMC regulation (89/336 / EEC) to represent this device, and the low-voltage regulation of European Union (73/23/EEC). It represents to follow the following standard regulations of European Union (The bracket is a reciprocal international standard reciprocal international standard and regulation).

- EN 60950/A11: 1997/(IEC 60950/A4: 1996),The ones that includes information science and technology of apparatus of e-commerce safe.
- EN 55024: 1998 (IEC 1000-4-2, 1000-4-3, 1000-4-4, 1000-4-5, 1000-4-6, 1000-4-8, 1000-4-11) -' scientific and technological apparatus of information - The characteristic of interfere avoided - Restrain and test method '
- Chapter 2 -Static release (ESD) Demand
- Chapter 3 -Radiate the static field demand
- Chapter 4 -The electron is transmitted / produced and washed (EFT) fast Demand.
- Chapter 5 -surge demand
- Chapter 6 -Resistance demand caused in field of wireless frequency.
- Chapter 8 -Magnetic field demand of electric frequency.
- Chapter 11 –Shortly cut off the demand of making a variation with the voltage transiently under the voltage.

EN 55022:1998/(CISPR 22:1997) ,Class B, ' “To assess information scientific and technological apparatus wireless restriction and way of interfering with the characteristic.”

FCC Consistent Declaration (U.S.A. Only)

Attention: FCC rule regulation, modified and changed must allowed by WENSHING Electronics company, otherwise that would make you operate this apparatus invalid. This apparatus adopted test, according to chapter 15 that FCC regulation, accord with Class B digital restrictions of device. These limits are designed to provide reasonable protection, avoid to having harmful interference at home’s environment.

This device may have radiated wireless frequency energy. If don’t allow the instruction manual, then may will interfere wireless communication. However, there is no any way to guarantee, it will not be interfered in particular installed. If this device really causes harmful interference, (It could be confirmed by turning on or off this device.) Advise you to try to use the following ways modifying the interference situation.

- Relocation receiving antenna or altering its direction.
- Increase the distance between device and receiver.
- Please connect this device to the outlet in the circuit different from the receiver.
- The following manuals is published by Federal Communications Commission, they must be helpful to all users.
- How to Identify and Resolve Radio-TV Interference Problems. (This manual can be obtained by relevant departments of publication of the U.S. government.)
- Government Printing Office, Washington D.C., 20402. Stock No. 004-00398-5

WENSHING Confidential
Do Not Distribution