

# XBi2H Manual

Revision : 01



Date : March 01, 2010

Helmet mounted photographs outside



Outer portion of a helmet mounted photos

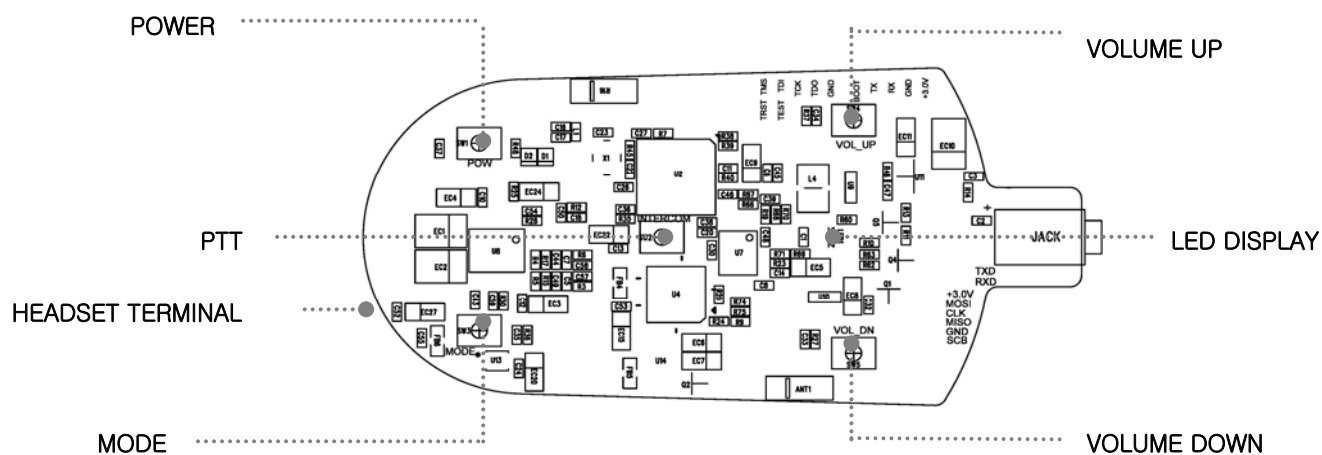


## 1.XBi2-H Main Buttons

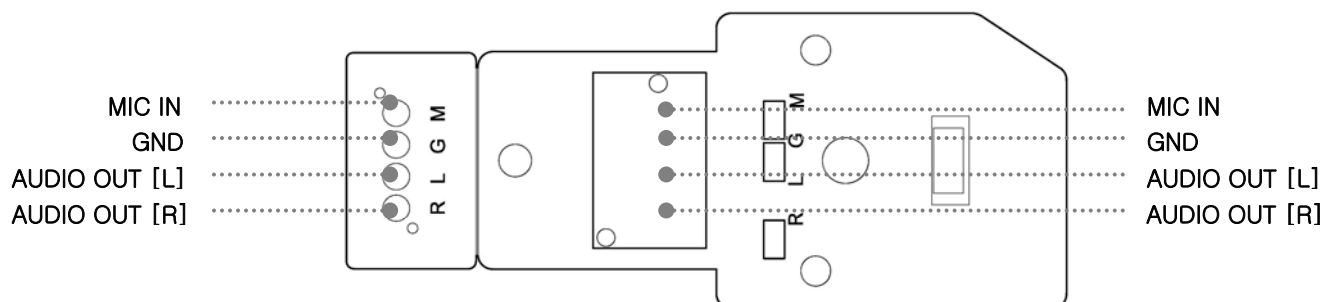
### OUTSIDE DESIGN



### PCB LAYOUT



### HEADSET & AUX [CHARGE] TERMINAL



### LED Working Condition

- RED LED : Power ON/OFF , Partner Intercom & Group Call Connecting
- BLUE LED : Blue-tooth Working, Charging Condition[LED ON] & Finish[LED OFF]

**제품의 주요 규격**

N0	Parameter		Condition	Bluetooth	Binary CDMA	REMARK
1	Service Area		-	Within 10 m	Within 100 m	
2	Frequency Range		L.O.S	2402 ~ 2480 MHz	2402 ~ 2480 MHz	
3	Output Power		Normal	-3.5 ~ + 3 dBm	-1~+14dBm[20dBm Max]	
4	Sensitivity Level		0.1% BER	-82 dBm	-90 dBm	
5	Supply Voltage		-	DC Adaptor +5.0 V	←	
6	Current Consumption		-	30 mA	40 mA	
7	Operating Temp		-	-10 ~ +55 ℃	←	
XBi 전기적 특성 및 사양						
1	Service Area		-	Within 10 m [Class2]	Within 100 m [Class1]	
2	Frequency Range		-	2402 MHz ~ 2480 MHz	2402 MHz ~ 2480 MHz	
3	Output Power		Connection	-2.98 dBm	7.21 dBm	
4	Sensitivity Level		0.1% BER	-80 dBm		
5	Operation Voltage		-	+3.30V ~ +4.2 V		
	Low Battery Detection		-	+3.30V ±0.1V Under		
6	Current Consumption		Stand by	70mA		
			Continuity	130 mA [Max-MP3 Play]		
7	Audio Power		@ 32Ω	120 mW [Max Power]		
8	Operating Time		Stand by	around 7 hours		
			Continuity	around 3 hours		
9	Operating Temp		-	-10 ~ +55 ℃		
10	Battery		-	Li-Poly [530mA – PCM PCB built in]		
11	Headset	Mic	-	14.8 PI, Dynamic Mic applied		
		Speaker	-	Hi-Fi, 32Ω Load applied		
		Audio Jack	-	4 Port Terminal Block applied		



## 2. Main Buttons Action

N0	Function Buttons	Main Function	Recognition Time	Function Enter	Remark
1	POWER	Power ON	1.0 s ↑	RED + BLUE	RED LED ON
		Power OFF	5.0s ↑	RED + BLUE	RED LED ON
		Hands-free	1.0 s ↓	–	Blue-tooth Phone connected
		Blue-tooth Pairing	7.0 s ↑	BLUE LED	Blue-toothPairing Mode Entering
2	PWR+MODE	Partner Pairing[Driver-Master]	4.0 s	RED [200ms]	Partner Pairing Mode Entering
		Partner Pairing [Passenger-Slave]	1.0 s	RED[100ms]	After finish Power OFF
3	MODE	Partner Intercom Select	1.0 s ↓	2-Tone	Wireless Call with Partner
		Stereo Send Deselect [Partner Intercom]			Deselect Stereo Send to Partner
		Stereo Send Select	2.0 s ↓	3-Tone	Stereo Send to Partner
4	VOLUME UP	Volume Increase	1.0 s ↓	–	Audio Output Power Increase
		VOX Level Increase	2.0 s ↓	1-Tone	VOX Level Increase
5	VOLUME DOWN	Volume Decrease	1.0 s ↓	–	Audio Output Power Decrease
		VOX Level Decrease	2.0 s ↓	1-Tone	VOX Level Decrease
6	PTT	VOX Select/Deselect	1.0 s ↓	4-Tone	VOX Select/Deselect
		Voice Call Available	Push	–	Voice Send to Partner
		Voice Call Prohibit	Release	–	

## 3. Button Operation

### 3-1. POWER Button

- Power ON/OFF of Main unit.
- Blue-tooth Pairing Mode Entering.
- When the B/T Phone connected, Answer/Hang up phone call.

### 3-2. MODE Button

- Partner Intercom Select.
- Stereo Sending Select.
- Stereo Sending Deselect [Partner Intercom Select].

### 3-3. VOLUME UP Button

- Audio Out power Increase.
- VOX Level Increase.

### 3-4. VOLUME DOWN Button

- Audio Out power Decrease.
- VOX Level Decrease.

### 3-5. PTT Buttton

- Partner Intercom Select – Voice Communication with Partner.
- VOX Level Function – Select/Deselect.
- When VOX Function Select/Deselect, If you press PTT Button, Voice Communication with partner is available.

## 4. Operation

### 4-1. How to Power ON/OFF

- Press PWR button around 1second, RED [BT icon]LED is keeping “ON”, and release PWR button at this condition.
- Main Unit Power ON – RED & BLUE LED are switching ON/OFF continuously.
- Press PWR button around 5seconds, RED [BT icon]LED is keeping “ON”, and release PWR button at this condition.
- Main Unit Power OFF – RED & BLUE LED are OFF.

### 4-2. How to Partner Pairing

- Press “PWR” button until the RED [BT icon]LED stay “ON” condition then release “PWR” button.
- Press “PWR” & “MODE” buttons at the same time until the RED LED[BT icon] is switching ON/OFF as fast as 100ms, and speed up to 200ms, then release both buttons. [Driver–Master]
- Make Power on Partner[Passenger]’s Main unit.
- Press “PWR” & “MODE” buttons at the same time until the RED LED[BT icon] is switching ON/OFF as fast as 100ms, then release both buttons.[Passenger–Slave]
- Finish Pairing correctly – Driver[Master] & Passenger[Slave]’s Main Units must be Power OFF.
- Make Power ON both Driver[Master] and Passenger[Slave]’s Main Unit.
- After finish Partner Pairing one time – you do not need to do partner Pairing job again, even though the Power is changed OFF/ON.

### 4-3. How to Blue-tooth Pairing

- (When Power OFF), Press PWR button around 7 seconds, – BLUE LED is switching ON/OFF and release PWR button at this condition.
- Pairing Register with Blue-Tooth Devise User Manual. [Register Step is the exactly same as X1 BT]
- After finish Blue-Tooth Pairing one time – you do not need to do Blue-Tooth Pairing again, even though Power is changed OFF/ON..

#### Using Blue-Tooth Phone & Blue-Tooth MP3 at the same time

- Connect Blue-Tooth Phone to main unit first and then Blue-Tooth MP3 is next.

### 4-4.VOLUME UP/DOWN Control

- Driver or Passenger’s main unit should be Power ON.
- If you press the VOL UP/DOWN button within 1second, the Audio Output power will be Increased/Decreased.
- Audio Output power has 7 steps level and If the power is switched from OFF to ON, the audio level goes back to standard (Nomal) level.

### 4-5. Partner Intercom

- Make Power ON Driver & Passenger’s Main Units.
- If partner intercom connected correctly – RED LED is switching ON & OFF continuously.  
[If partner intercom is not connected correctly – RED LED is switching ON & OFF continuously once every 0.5 second]
- Each partner is able to 1:1 two-way communication with using Mic in headset.
- Press “MODE” button around 1second, you can select/deselect the Partner Intercom function with 2 Tone sound from speaker.
- If Power is changed from OFF to ON, the main unit is always working selected Partner Intercom function.

#### Partner Intercom working in connected MP3

- While having voice communication with partner – **can not** listen to MP3 music through the speaker.
- After finish voice communication with partner – can listen to MP3 music through the speaker.

#### 4-8. Blue-tooth Hands-free

##### **Hands-free Function in Partner Intercom Condition**

- If receive a phone call – can hear specific Ring sound like “Dung Dung Dung” through speaker.
- Answer Phone Call – Press “PWR” button around 1 second → will be deselected Partner Intercom Function in Hands-free condition.
- Make a Phone Call – enter telephone number and press “PWR” button around 1 second, → will be deselected Partner Intercom sending function in Hands-free condition.

##### **Hands-free Function in Stereo Sending Condition**

- If receive a phone call – can hear specific Ring sound like “Dung Dung Dung” through speaker.(No MP3 music).
- Answer Phone Call – Press “PWR” button around 1 second, → will be deselected Stereo Sending Function in Hands-free condition.
- Make a Phone Call – enter telephone number and press “PWR” button around 1 second, → will be deselected Stereo sending function in Hands-free condition.

#### 4-9. Low Voltage Alert

- If the Voltage of Main unit is entering  $+3.3V \pm 0.1V$ , you will hear the first alarm beep sound from speaker.
- After the first beep, if the voltage is entering  $+3.3V \pm 0.1V$ , the power will be OFF automatically.

#### 4-10. How to Charge

- Main Unit Charge – Should be OFF.
- If you insert the Charge Terminal into the Main unit, BLUE LED will be “ON”.
- Finish Charging – BLUE LED will be “OFF”.

#### Part 15.19

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.

#### Part 15.21

Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

#### RF Exposure Statement

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.