

类别: Type	SA-40 (BT-0JA3X) 产品规格书 Product Spec.	文件编号: Doc. #	
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- There are different signs in the text below, which represent different meanings;
  - ▲ is 100% test item of manufacturing production;
  - ★ focus on the research and development, engineering design;

## 2. Function key Symbol



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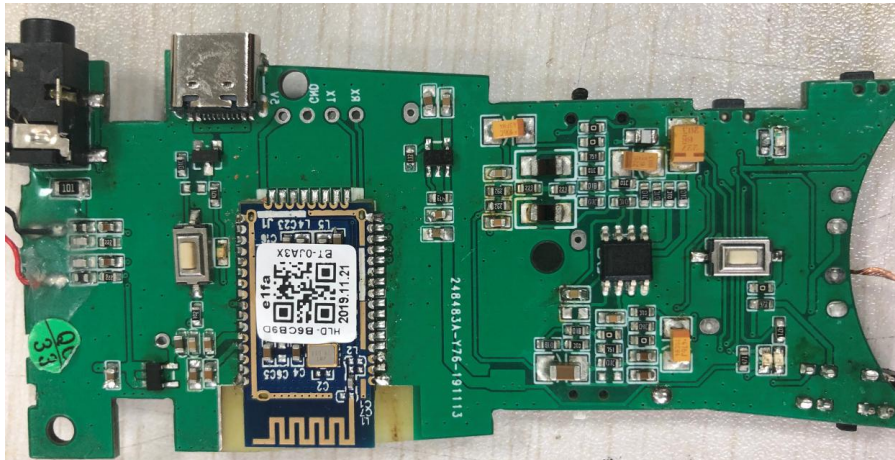
### 3. Product specifications

Bluetooth specification standard	: Version 5.0
Operating frequency range	: ISM 2.402 to 2.480GHz
Support Bluetooth Profiles	: Headset & Hands-Free Profiles
Transmit power	: Class 2
Wireless connection range	: ▲ 10 meters
Charger output specifications	: DC 5V 400mA
Built-in rechargeable lithium battery	: 3.7V 800mA (compatible with NOKIA # BL-5B battery)
Hands-free standby current	: ▲ 2mA;
Hands-free talk current	: ▲ AVG is about 80mA;
Shutdown current	: ▲ Less than 0.05mA
Speaker	: OD 40 * 5.0mm, 1W / 4 ohm
Microphone	: -42 +/- 3dB, OD4 * 1.5mm 1pcs
Normal charging time	: ★ 3-4 hours
Hands-free talk time	: ★ about 10 hours
Standby time	: ★ about 400 hours
Hands-free size	: 11.7 * 4.80 * 1.70 cm (without clip)
Weight	: about 89g (including battery)

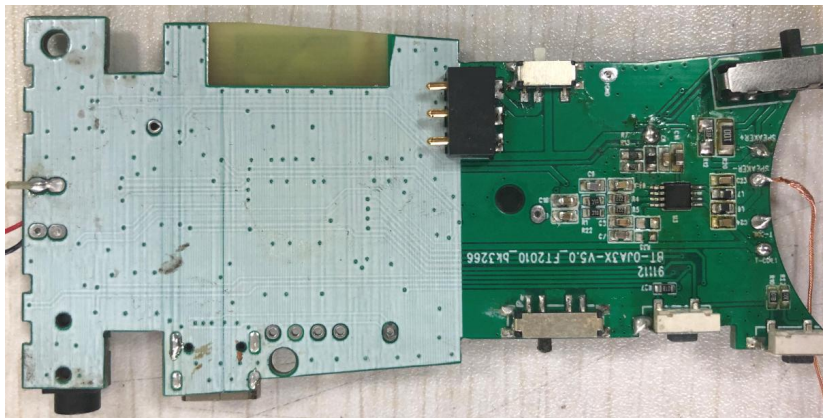
### 4. Hardware

PCB photos\_Front

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PCB photos\_Back



### 5. Software/Firmware

I / O port / function

I/O pin	Function/feature
PIO6	LED1
PIO3	KEY
PIO7	LED0
PIO14	Tone control (Hi)
PIO4	Tone control (Lo)
PIO5	Tone control (Med)
PIO15	MIC Mute control
PIO9	Speaker control
PIO8	Small volume control

### 6. Button function description

Button	Function	Pre-operation status	Operation	Voice indication
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▶/◀	Power on	Power off mode	Power switch push to ON	Long beep once
	Power off	Standby mode	Power switch push to Off	
	Pairing	Power off mode	Power switch push to Off	
	Call Answer	In-coming call	Short press MFB	
	Call End	Call in progress	Short press MFB	
	Voice Dial	Standby mode (Phone connected)	Short press MFB	
	Call Reject	In-coming call	Long press MFB for 2sec.	Short beep once
	Call out terminal	Dial out no. & far end haven't pick up the phone	Short press MFB	
Tone (HI-MED-LO)	HI	Call in progress	Push the switch to HI	
	MED	Call in progress	Push the switch to Med	
	LOW	Call in progress	Push the switch to Lo	
Volume +/-	Volume +/-	Call in progress	Short press V+/- to adjustment	
Volume switch	Small Volume(Handset)	Call in progress/Standby mode	Push the switch to HS	
	T-Coil (Hearing aids)	Call in progress/Standby mode	Push the switch to T-coil	Hearing aids connected
	SPK	Call in progress/Standby mode	Push the switch to SPK	

### 7. LED Indication and Sound Indication

Speakerphone mode	LED Indication	Sound Indication
Power off mode	Orange & Green LED both off	
Power On	Green flashed every 3 sec.	Long beep once
Power off	Green turn off	
Standby mode	Green flashes every 6 sec.	
Standby mode (Low battery)	Orange flashes every 1 sec.	
Call in progress	Green stay on	
Pairing in progress	Orange/Green flashes fast alternatively	
Pairing succeed	Green flashes every 6 sec.	Short beep+Long beep+extra Long beep
Pairing failed	Green flashed every 3 sec.	Short beeps x 3 times
Charging in progress	Orange stay on	
Charging completed	Orange turn off	

### 8. Get started

版本/修改状态 Version/Changes: A/0 页次 Pages: 10/12

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- (a) Charging time: The normal charging time for the battery is about 3-4 hours.
- (b) Charging instructions: When the hands-free in charging, the orange light will be on; after full, the orange light will be off.
- (c) Low battery indication: When the voltage of the hands-free battery drops to 3.3V, the hands-free detects a low voltage, please charge the hands-free immediately. When the voltage of the hands-free battery is lower than 3.0V, the hands-free will automatically shut down and the yellow light flashes once per second.

### 9. Power On and Power Off

#### (A) Power on

In the power off mode, push the power switch to ON, the green light flashes every 3 seconds, the speaker emits a long beep, and it enters the standby state hands-free.

#### (B) Power Off

In the power on mode, push the switch to OFF, the green light is off, and the hands-free enters the power-off mode.

### 10. Pairing and Connection to mobile phones


(a) Control the distance between Bluetooth hands-free and mobile phone within 1 meter.

(b) Make sure that the Bluetooth hands-free is in the power off mode.

(c) Push the power switch to ON until the orange and green lights flash rapidly alternately, and the Bluetooth hands-free enters the Bluetooth pairing mode.


(d) According to the instruction of the Bluetooth mobile phone, open "Bluetooth Search" or "Add New Device" and select "SA-40". After the pairing is completed, the green light will flash 3 times quickly, accompanied by a long beep.

(a) If the pairing of the mobile phone and the Bluetooth hands-free cannot be completed within 2 minutes, the speaker will be short beep 3 times, the green light flashes once every 3 seconds, and the new mobile phone has not been paired successfully within 10 minutes. After that, enter the power-saving power off mode, Bluetooth hands-free automatic shutdown. Please repeat steps (b) to (d)

(b) For most mobile phones, after the pairing is completed, the connection will be automatically completed. At this time, the headset icon  can be seen on the phone screen. If there is no such symbol, please operate the phone and select "SA-40" in paired device to complete the connection

Remarks: The phone has been paired. After 10 seconds, it can be reconnected with the last paired phone. If the last paired phone is not nearby, it will be opened for 3 minutes to be paired immediately.


### 11. Restore the connection with the mobile phone

After the pairing and connection is completed, the hands-free is in standby mode. If the headset icon  does not appear on the phone screen before using the hands-free, please follow the steps below to restore the Bluetooth connection

(a) Using a mobile phone: Select "SA-40" in the mobile phone pairing list to connect.

(b) Use hands-free: Turn off the hands-free and then turn on the phone, select "Accept Connection" on the phone screen. Please note that some phones will not display the "Accept Connection" instruction.

#### Tip!

(a) Whenever the Bluetooth link is lost or removed, and the headset icon  is not visible on the phone screen, for example: the hands-free or the phone is turned off and then turned on,

Or a sensing distance of more than 10 meters, please follow the above instructions to reply to the link

(b) This product has a power saving device. Once the Bluetooth connection is removed for more than 10 minutes (approximately), the product will automatically shut down. To resume the connection, please operate the phone within 10 minutes to resume the connection.

(c) After the hands-free is turned off, turn it on again. In most cases, the hands-free will automatically connect with the last connected phone. If it is not automatically connected, you can operate the phone or restore the connection according to the above description.

(d) When the car is not connected to the standby state, turn off the hands-free and then turn it on again. The hands-free will automatically connect to the last connected mobile phone.

### 12. Remove Connection /Disconnection

You can disconnect the hands-free and mobile phone by the following methods:

(A) Power off: Turn off the hands-free or mobile phone.

(B) Operate the phone: "Disconnect" from the menu of the connected Bluetooth device of the phone

Remarks: The hands-free device is disconnected from the mobile phone beyond 10m distance. For most Bluetooth mobile phones, it will automatically connect within the distance of the return. After disconnecting for more than 10 minutes, the hands-free will automatically shut down if the mobile phone is not returned within the distance.

### 13. Use Bluetooth hands-free

#### (a) Call Answer

When a phone call comes in, the Bluetooth hands-free come up with ringtone sounds, short press the MFB button, the green light is always on.

#### (b) Call End

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When the Bluetooth hands-free is in a call, short press the MFB button, the green light flashes once every 6 seconds

(c) Call Reject

Bluetooth hands-free call ringtone, long press the MFB button for 2 seconds, until you hear the speaker voice indication.

(d) Voice dialing

When the Bluetooth hands-free is in the standby mode(mobile phone is connected), short press the MFB button, the green light flashes once every 6 seconds, then speak the voice tag for voice dial now.

**Tip!** : Before using voice dialing, first make sure that there is a voice dialing function in the mobile phone. Please refer to the operating instructions of the mobile phone for specific usage. Due to differences in mobile phones, some mobile phones do not have a prompt tone during voice dialing.

(f) Discontinue dialing out

When the number is dialed and the other party is not pick up the call, short press the MFB button to stop dialing.

(g) Mute / unmute

(1) Mute: During a call in progress, press the "MIC" once, the orange light will be on.

(2) Unmute: In the mute state, short press the "MIC" once, the orange light goes out, then the mute is released.

(h) Volume adjustment

Increase the volume: Each time you press the volume plus +, the volume increases by one level. Volume down: Each time the volume is reduced by-, the volume is reduced by one level.

**Tip!**: When the volume is adjusted to the maximum or minimum volume, there will be a beep sound and the volume level is 6 levels max..

(I) Volume mode switching

In the standby or call in progress, push the volume mode switch, you can use the call effect of different modes, (HS / T-coil / SPK mode)

(J) Tone mode switching

Push the tone mode switch, you can change the call effect of different tones (HI-MED-LOW)

(K) Silent mode

Short press the mute button during a call, and the MIC is muted. At this time, the other party cannot hear you. Unmute and press the mute button once.

(L) Restore ex-factory settings;

In standby mode, press "VOL +" and "Answer key" at the same time for 10 seconds, and emit "Beep" 5 times, which will restore the initial settings and clear all existing Bluetooth connections. This operation is used for after-sales service, it is not recommended for users, and it is not described in the manual.

#### 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.

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 correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into and outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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