PRODUCT SPECIFICATION

产品规格书

Customer name: Aleck

Customer Product Name: Aleck CS

Dusun product name: DSBC-170

9NC:

Date: 2022.3.15

Version: V0.1

Version update record:

Version number	Update date	Person in charge	Remake
0.0	2012/3/15	Yao Tao	New version release

一.Product introduction

1.1 Product overview

This product is based on the NRF52832 chip, supports USBTYPEC charging, with LIR2032 battery, with an LSM6DSL gyroscope and an H3LIS200 accelerometer with a buzzer.

Mass production with customer firmware.

1.2 Product characteristic parameter

Bluetooth frequency：2402~2483MHz
Bluetooth carrier deviation: ±50kHz
Bluetooth transmission power (closed loop) : 0dBm
Bluetooth transmission power (open loop) : >-10dBm
Bluetooth maximum transfer rate: 1Mbps
Bluetooth working distance: >10m
Operating voltage: 3.6-4.2VDC
Static current (connection) : <30uA
Sleep current (not connected) : <10uA
Plate making process: gold, double panel
Antenna form: PCB antenna
RoHS compliant
Operating temperature: -10~+50℃
Storage temperature: -20~+60℃
Relative humidity: <=85%
Waterproof and dustproof class: IP66

1.3 Product profile

二.Software functions (for production test only)

2.1 Communication protocol

Beacon communicates with the host computer through the RTT tool, the protocol is the same as DSR-0909, and the host computer judges.

2.2 Low power consumption

Power on directly into the low power consumption, by inserting USB wake up, the host computer judge.

2.3 Charge detection

The tool uses 5V power supply, detects whether it is in the charging state through the I/O port, and then reports it through RTT for the host computer to judge.

2.4 Gyroscope and accelerometer detection

Detect I2C communication and data, report through RTT tool, and host computer judge.

2.5 The buzzer test

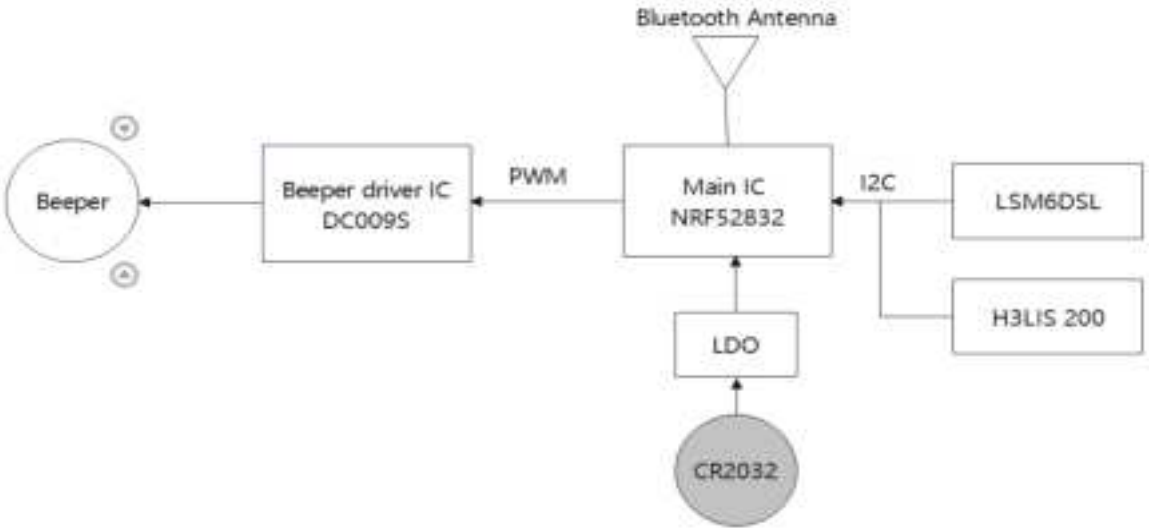
The upper computer sends commands to the Beacon through the RTT tool to make sound.

2.6 OTA

The product supports OTA.

2.7 Power frequency offset

Burn special test firmware to test power frequency bias (same as DSR-0909)



External interface

USB type-C Supports serial UART communication

FCC Statement

1. 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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. 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.

SAR Information Statement

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. * Tests for SAR are conducted with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this model phone when worn on the body, as described in this user guide, is **0.024W/Kg**(Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements). While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure. The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RFexposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/ oet/fccid after searching on FCC ID: **2BAXH-42472** Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Asso-ciation (CTIA) web-site at http://www.wow-com.com. * In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a sub-stantial margin of safety to give additional protection for the public and to account for any variations in measurements.

Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance

of 0mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters,

and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

IC STATEMENT

This device complies with Industry Canada licence-exempt RSS standard(s)

Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue.

The highest SAR value for this model phone when worn on the body is 0.063 W/Kg. This device was tested for typical body-worn operations. To comply with RF exposurerequirements, a minimum separation distance of 0mm must be maintained between the

user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

Ce dispositif est conforme aux normes autoriser-exemptes du Canada RSS d'industrie

L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.Cet équipement

est conforme avec l'exposition aux radiations IC définies pour un environnement

non contrôlé. L'utilisateur final doit respecter les instructions de fonctionnement spécifiques pour satisfaire la conformité aux expositions RF. Cet émetteur ne doit pas être co-localisées

ou opérant en conjonction avec une autre antenne ou transmetteur.Ces exigences définissent

la valeur SAR limite à 1.6 W / kg en moyenne par gramme de tissu.La valeur SAR la plus

élevée pour ce modèle de téléphone lorsque portésur le corps est 0.063 W/Kg.

Cet appareil a été testé pour des opérations portés sur le corps typiques. Pour se conformer aux exigences d'exposition aux radiofréquences, une distance minimale de 15 mm doit être maintenue entre le corps de l'utilisateur et le combiné, y compris l'antenne. Les pinces de ceinture, les étuis et autres accessoires similaires utilisés par cet appareil ne doivent pas contenir de composants métalliques. Les accessoires portatifs qui ne répondent pas à ces exigences peuvent ne pas se conformer aux exigences d'exposition RF et doit être évitée. Utilisez uniquement l'antenne fournie ou une antenne approuvée