

文档编号		文档密级	内部使用
文档名称	蓝牙模块规格书	当前版本	V1.0
归属项目	C22Q	归档日期	
项目编号			
文件状态	<input type="checkbox"/> 草稿 <input checked="" type="checkbox"/> 正式发布 <input type="checkbox"/> 正在修改		

# C22Q 蓝牙模块规格书

(仅供内部使用)

北京牛电科技有限责任公司

*Beijing Niu Technology Co., Ltd.*

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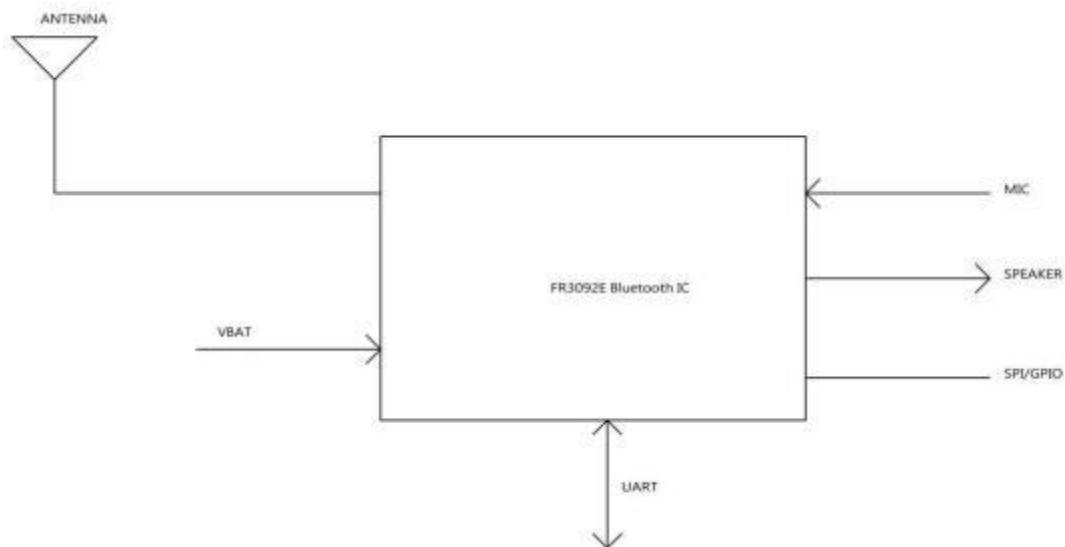
# 版本历史

版本	日期	作者	备注
v1.0	2024/12/25		

## 1、 Product features

4	GND	GND	GND
5	SPI_MISO	Digital I/O	General input/output
6	VBAT	PWR	Power, 3.6V max power
7	VBAT	PWR	Power, 3.6V max power
8	SPI_MOSI	Digital I/O	General input/output
9	BT_UART1_TX	Digital O	DL_UART1 TX
10	BT_UART1_RX	Digital I	DL_UART1 RX
11	BT_UART2_RX	Digital I	UART2 RX
12	BT_UART2_TX	Digital O	UART2 TX
13	SPK_EN	Digital I/O	General input/output
14	AUDLP	Analog O	Audio left channel positive output
15	AUDLN	Analog O	Audio right channel positive output
16	SPI_SCLK	Digital I/O	General input/output
17	MIC_BIAS		Mic Bias
18	MIC_IN		Min input pin

## 4、Diagram



## 5、Size

20 (mm) \* 13.3 (mm) \* 2.8 (mm)

## 6、 Rule

Hereby, [Jiangsu Niu Electric Technology Co., Ltd.] declares that the radio equipment type [Bluetooth Module C22Q] is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <http://www.@niu.com>



MPE

RF exposure statement

RF exposure information: The Maximum Permissible Exposure (MPE) level has been calculated based on a distance of  $d=20$  cm between the device and the human body. To maintain compliance with RF exposure requirement, use product that maintain a 20cm distance between the device and human body.

### 15.19 Labeling requirements.

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.

### 15.21 Changes or modification warning.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### 15.105 Information to the user.

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

### RF warning for Mobile device:

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 module is intended for OEM integrators only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module:

## KDB 996369 D03 OEM Manual v01 rule sections:

### 2.2 List of applicable FCC rules

This module has been tested for compliance to FCC Part 15

### 2.3 Summarize the specific operational use conditions

The module is tested for standalone mobile RF exposure use condition. Any other usage conditions such as co-location with other transmitter(s) or being used in a portable condition will need a separate reassessment through a class II permissive change application or new certification.

### 2.4 Limited module procedures

Not application

### 2.5 Trace antenna designs

Not application

### 2.6 RF exposure considerations

This equipment complies with FCC mobile radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. If the module is installed in a portable host, a separate SAR evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

### 2.7 Antennas

The following antennas have been certified for use with this module; antennas of the same type with equal or lower gain may also be used with this module. The antenna must be installed such that 20 cm can be maintained between the antenna and users.

Frequency (MHz)	Type	manufacture	Gain
2400	PIFA antenna	NIU	-2.69
2450	PIFA antenna	NIU	-2.68
2500	PIFA antenna	NIU	-2.60

### 2.8 Label and compliance information

The final end product must be labeled in a visible area with the following:  
 “Contains FCC ID: 2AZ6G-C22Q”. The grantee’s FCC ID can be used only when all FCC compliance requirements are met.

### 2.9 Information on test modes and additional testing requirements

This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) or portable use will require a separate class II permissive change re-evaluation or new certification.

## **2.10 Additional testing, Part 15 Subpart B disclaimer**

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.

As long as all conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

### **IMPORTANT NOTE:**

In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

### **Manual Information To the End User:**

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual

### **OEM/Host manufacturer responsibilities**

OEM/Host manufacturers are ultimately responsible for the compliance of the Host and Module. The final product must be reassessed against all the essential requirements of the FCC rule such as FCC Part 15 Subpart B before it can be placed on the US market. This includes reassessing the transmitter module for compliance with the Radio and EMF essential requirements of the FCC rules. This module must not be incorporated into any other device or system without retesting for compliance as multi-radio and combined equipment