

Product Specification

Product name: Bluetooth Module

Product model: F-9398

DATE: 2019-01-03

Catalogue

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1.Product Overview :

BK3431Q highly integrated bluetooth 5.0 chip BLE bluetooth module USES a single mode data transmission module, the built-in high-performance transceiver, powerful baseband processor, built-in FLASH program memory is suitable for the custom application, the better to defend the security of the application (for small data is extremely low power consumption, does not support voice, it is mainly used for control), now our company to the customer the sample module for a serial port passthrough module.

2.Module specification features:

1. Perfect solution for android system (android 4.4 is perfectly compatible, 4.3 only supports one-way operation)

The problem of two-way pass-through between IOS system and BK3431Q bluetooth module at the same time.

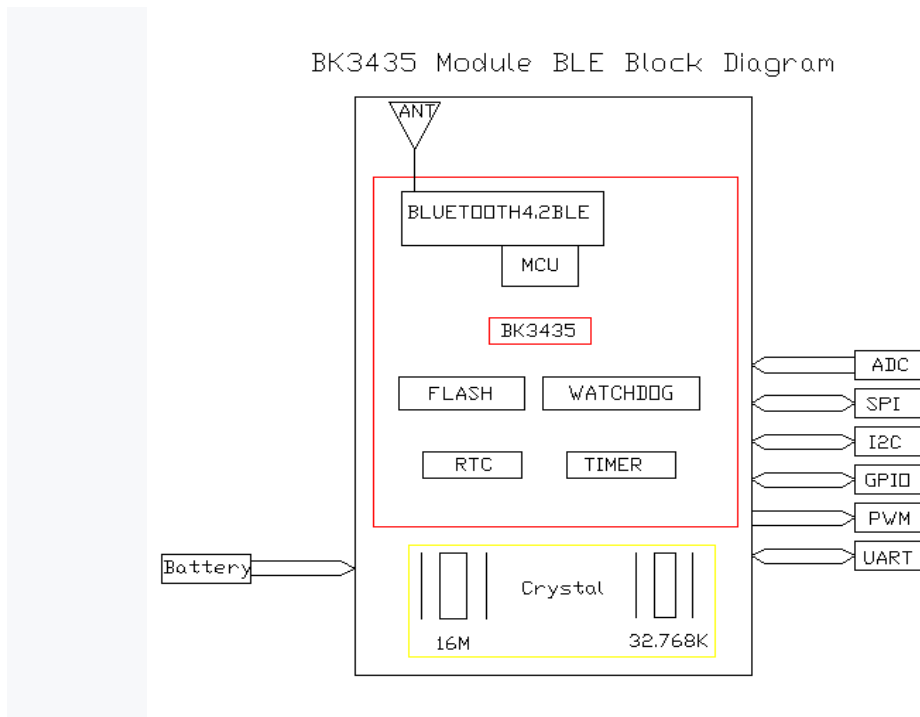
2. The user interface is designed with a universal serial port and full duplex two-way communication.

3. Support AT instruction.

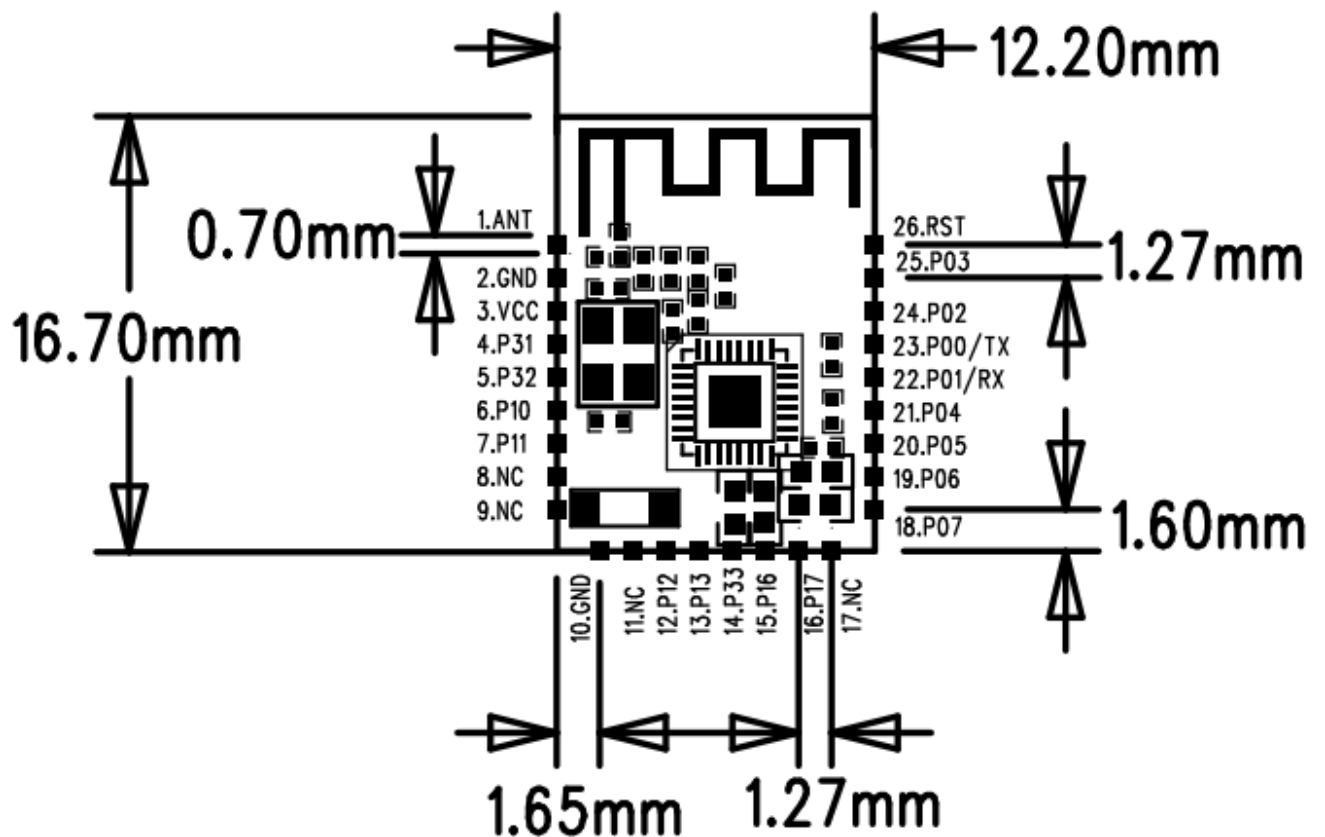
3.Performance parameter:

Model	F-9398
Bluetooth specification	BluetoothV5.0
Power Supply	2.0-3.6V
Support V5.0Bluetooth stack	ATT,GATT,SMP,L2CAP,GAP
Working Current	≤10mA(Simple application 20uA~1mA)
Sleep current	Under 2uA
Temperature Range	-20°Cto+80°C
Wireless transmission	0~100m
Transmission power	Maximum adjustable 4dBm, default 0dBm
Sensitivity	-93dBm<0.1%BER
Frequency Range	2.402GHz-2.480GHz
STATICS	IO,UART,SPI,PWM,ADC,IIC
Panel size	15.00mm*12.00mm*1.8mm

4. Block diagram of module :



5. Module size and module pin bitmap :



6.Pin function description :

Pin number	Pin name	Primary function	Secondary function	Remark
1	ANT	-	-	-

2	GND	-	-	-
3	VCC	-	-	-
4	P31	-	ADC1	-
5	P32	I/O	ADC2	-
6	P10	I/O	PWM0	-
7	P11	I/O	PWM1	-
8	NC	-	-	Reset pin (low level reset)
9	NC	-	-	-
10	GND	-	-	-
11	NC	-	-	-
12	P12	I/O	PWM2	-
13	P13	I/O	PWM3	-
14	P33	I/O	ADC3	
15	P16	I/O	-	
16	P17	-	-	
17	NC	-	-	
18	P07	I/O	-	Burning mouth
19	P06	I/O	-	Burning mouth
20	P05	I/O		Burning mouth
21	P04	I/O		Burning mouth
22	P01	I/O	UART_RX	
23	P00	I/O	UART_TX	
24	P02	I/O		Burning mouth
25	P03	I/O		Burning mouth
26	RST			

7.Functional Specification :

7.1 serial port TX is P00, RX is P01 and baud rate is 9600

7.2 hardware reset function, RST and low level reset

7.3 there is a serial port AT instruction function

8.AT Telnet:

8.1 the corresponding function is realized by inputting a specific string into the serial port

9.Apply circuit diagrams:

(OEM) Integrator has to assure compliance of the entire end-product incl. the integrated RF Module.

For 15 B (§15.107 and if applicable §15.107) compliance, the host manufacturer is required to show compliance with 15 while the module is installed and operating.

Furthermore the module should be transmitting and the evaluation should confirm that the module's intentional emissions (15C) are compliant (fundamental / out-of-band). Finally the integrator has to apply the appropriate equipment authorization (e.g. Verification) for the new host device per definition in §15.101.

Integrator is reminded to assure that these installation instructions will not be made available to the end user of the final host device.

The final host device, into which this RF Module is integrated has to be labelled with an auxiliary label stating the FCC ID of the RF Module, such as "Contains FCC ID: 2AR7VF-9398

"This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

this device may not cause harmful interference, and

this device must accept any interference received, including interference that may cause undesired operation."

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.

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

**Module statement**

The single-modular transmitter is a self-contained, physically delineated, component for which compliance can be demonstrated independent of the host operating conditions, and which complies with all eight requirements of § 15.212(a)(1) as summarized below.

- 1) The radio elements have the radio frequency circuitry shielded.
- 2) The module has buffered modulation/data inputs to ensure that the device will comply with Part 15 requirements with any type of input signal.
- 3) The module contains power supply regulation on the module.
- 4) The module contains a permanently attached antenna.
- 5) The module demonstrates compliance in a stand-alone configuration.
- 6) The module is labeled with its permanently affixed FCC ID label
- 7) The module complies with all specific rules applicable to the transmitter, including all the conditions provided in the integration instructions by the grantee.
- 8) The module complies with RF exposure requirements.

This transmitter/module must not be collocated or operating in conjunction with any other antenna or transmitter.

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