GQ_JDB_8851S MOUDLE

User manual

Version   v2.0

Revision History

Version	Change Information	Date	Author
V 1.0	preliminary release	2020/8/16	LMY
V 2.0	Dev name	2020/8/16	YLL

Module technical parameters

Memory ：512K FLASH/48K RAM

Operating frequency band：2.4GHz ISM

modulation mode ： GFSK(Gaussian Frequency Shift Keying)

Supply voltage：5V

Working current：active TX@0DB：4.8mA with fullchip

active RX：5.3mA with fullchip

Suspend mode　30~40uA

Deep retention:1.2uA(8K RAM retention)

1.6uA(16K RAM retention)

2uA(32K RAM retention)

Bluetooth Specification

Receiving sensitivity： -96dBm

Support communication interface：UART（default:9600）

ADV interval： default 50ms interval

data service： Peripheral UUID 0XFF00

server to client 0XFF01

client to server 0XFF02

Instruction description

1：Query MAC address

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x0
Data length	1	0x0
Check	1	0x0

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x0
Data length	1	0x06
Data	6	
Check	1	

2：Query connection signal strength

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x01
Data length	1	0x0
Check	1	0x01

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x01
Data length	1	0x01
Data	1	
Check	1	

3：Query connection status

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x02
Data length	1	0x0
Check	1	0x02

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x02
Data length	1	0x01
Data	1	0x0/0x01 disconnect/connect
Check	1	0x03/0x04

4：Module reset

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x03
Data length	1	0x0
Check	1	0x03

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x03
Data length	1	0x0
Check	1	0x03

5：disconnect

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x04
Data length	1	0x0
Check	1	0x04

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x04
Data length	1	0x0
Check	1	0x04

6：Query module name

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x06
Data length	1	0x0
Check	1	0x06

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x06
Data length	1	Module name length
Data		
Check	1	

7： Set module name

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x07
Data length	1	Name length
Data		
Check	1	

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x07
Data length	1	0x0
Check	1	0x06

8：Query uart rate

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x08
Data length	1	0x0
Check	1	0x08

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x08
Data length	1	0x03
Data	3	
Check	1	

9：set uart rate

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x09
Data length	1	0x03
Data	3	
Check	1	

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x09
Data length	1	0x0
Check	1	0x09

10：Query product type

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x0C
Data length	1	0x0
Check	1	0x0C

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x0C
Data length	1	
Data		
Check	1	

11：Set product type

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x0D
Data length	1	0x06
Data		
Check	1	

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x0D
Data length	1	0x06
Data		0x0
Check	1	0x0D

12：Query ADV cycle

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x10
Data length	1	0x0
Check	1	0x10

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x10
Data length	1	0x02
Data	2	
Check	1	

13：Set ADV cycle

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x11
Data length	1	0x02
Data	2	
Check	1	

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x11
Data length	1	0x0
Check	1	0x11

14：Query software version

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x14
Data length	1	0x0
Check	1	0x14

Module return information

field	bytes	content
packet header	2	0XFFAA
Instruction code	1	0x14
Data length	1	0x02
Data		
Check	1	

Federal Communication Commission (FCC) Radiation Exposure Statement

The device has been evaluated to meet general RF exposure requirement, The device can be used in portable exposure condition without restriction Federal Communication Commission (FCC) Radiation.

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.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device is intended only for OEM integrators under the following conditions:

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Important Note:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the Federal Communications Commission of the U.S. Government (FCC) is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator shall be responsible for re-evaluating the endproduct (including the transmitter) and obtaining a separate FCC authorization in the U.S.

OEM Integrators - End Product Labeling Considerations:

The final end product must be labeled in a visible area with the following: "Contains, FCC ID: 2A4LEJBDBLEFF01. The grantee's FCC ID can be used only when all FCC compliance requirements are met.

OEM Integrators - End Product Manual Provided to the End User:

The OEM integrator shall not provide information to the end user regarding how to install or remove this RF module in end product user manual. The end user manual must include all required regulatory information and warnings as outlined in this document.

The module is without shielding cover, OEM integrators shall evaluate the RSE when installing this module to ensure that the module still meets regulatory requirements when installed into their system.

Product Name:JBD-BLE001