

RZ_BLE&MEDIA-V3.0

Bluetooth Module Datasheet

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Customer confirmation

Version history

version	date	Revisions	Editors	Approval
V3.0	2021/03/10	First edition		

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1 Product

Overview

1.1 Product Description

RZ_BLE & MEDIA-V3.0 is a low-energy embedded Bluetooth module consisting of a highly integrated Bluetooth chip Consists of the AC6925C and a small number of peripherals.

1.2 Product features

1. Bluetooth version : 5.0+EDR+BLE

AC69 BQB QDID:91274

BT frequency range: 2402MHz-2480MHz

Corresponding codec: SBC, AAC does not support APTX audio encoding

Technology Bluetooth: FHSS spectrum hopping, HSP protocol is not supported

Normal working temperature: -40°C~ +85°C

Working voltage: AC 3.3V-5.6V

Max Power output: +0dBm

RF output frequency (normal power or omni-directional power): 0 dBm

Output: class III

2. Modulation mode: GFSK DQPSK

Channel Bandwidth: 0.65MHz GFSK、 0.9MHz DQPSK @20db MHz

Modulation rate: 1 M/S GFSK

2M/S DQPSK

No. of preset switchable channels : 79

Maximum and minimum Number of Hopping Frequencies: 79 / 20

Hopping Frequency Separation: 1- 78 MHz

Absolute RF channel number: 0 - 78

Channel Spacing: 1MHz

1.3 General specification description

The product name	RZ_BLE&MEDIA-V3.0
Product description	Support Bluetooth 5.0+EDR+BLE
Product size	W x W x H: 55. x 35. 4x 8.0mm
BT interface	Support for UART/PWM
Operating temperature	-20°C to 85°C
Storage temperature	-20°C to 125°C
Environmental notes	All hardware components are fully compliant with the EU RoHS Directive

1.4 DC characteristics

(1) Power supply voltage

Power supply description	Power supply parameters	least	standard	utmost	unit
5V(pin#4)	5.0V supply voltage	/	5.0	/	In

1.5 working conditions

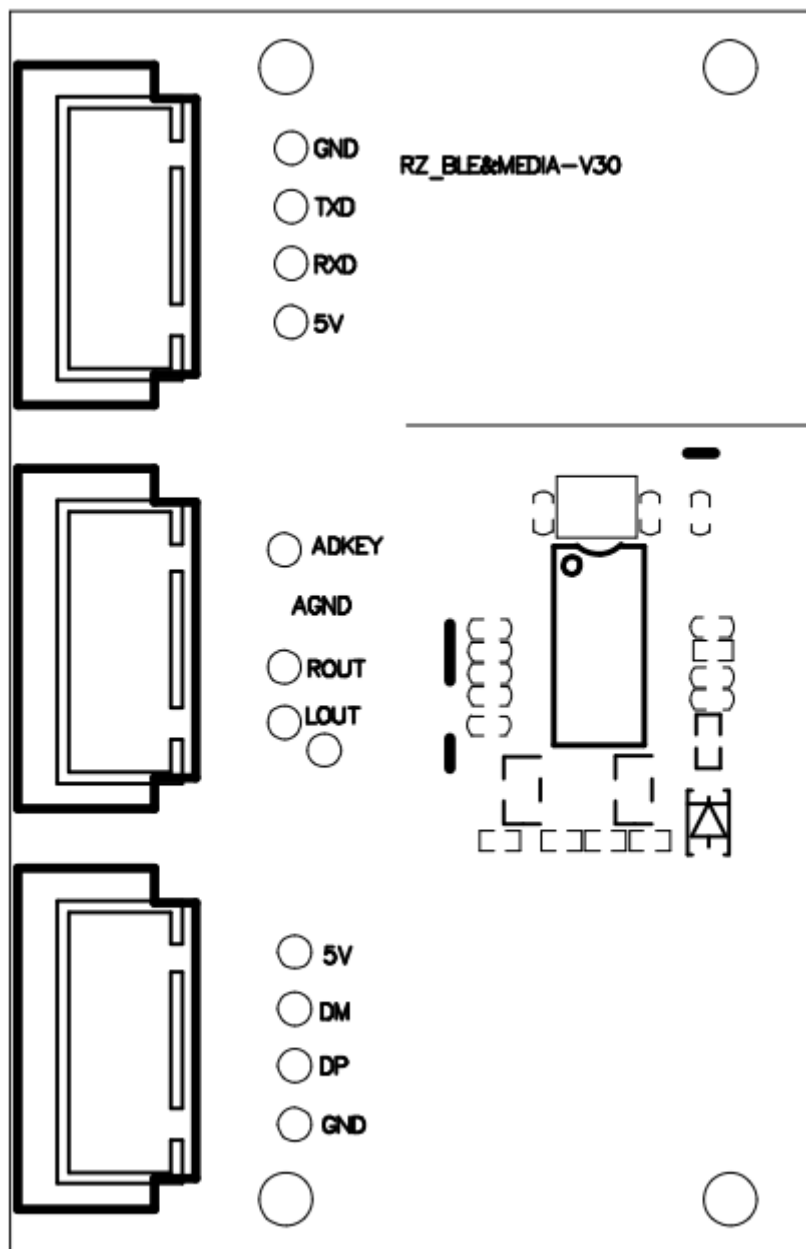
index	description	least	standard	utmost	unit
He	Operating temperature	-20	-	85	°C
VCC	Supply voltage	-	5.0	-	In
VOL	IO validation output	-	-	VCC*0.1	In
VOH	IO high level output	VCC*0.8	-	VCC	In
I _{max}	IO drive current	-	-	10	but

2.1 Bluetooth specifications

Product features	Product description		
General specifications			
Bluetooth specifications	Bluetooth V5.0		
Data interface	UART		
Antenna specifications	PCB antenna with -0.58 dBI peak gain		
Communication frequency range	2402 MHz ~ 2480 MHz		
Number of channels	79 channels		
Modulation mode	DQPSK, GFSK,		
RF technical parameters			
	least	standard	utmost
Output power (Class 2).	/	0 dBm	/
Sensitivity @ BER=0.1%. for GFSK (1Mbps)		-86 dBm	

3 Pin description

3.1 Pin



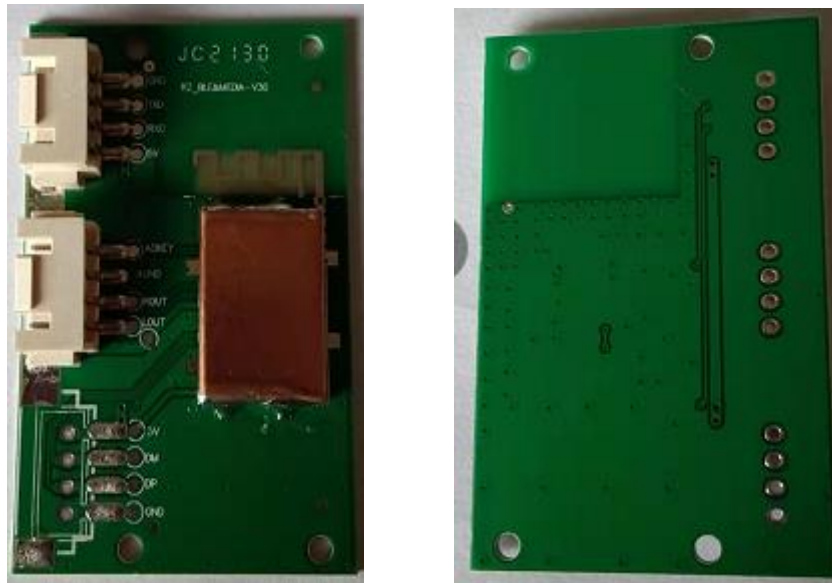
3.2 Pin definition

No	Pin Name	Type	Description
1	GND		GND
2	TXD	Or	TX (User a serial port)
3	RXD	I	RX (User a serial port)
4	5V	P	The power pin (5.0V) of the 5V module
5	ADKEY	I	KEY
6	AGND		AGND
7	ROUT	Or	AUDIO OUT R
8	LOUT	Or	AUDIO OUT L
9	5V	P	The power pin (5.0V) of the 5V module
10	DM	I/O	USB DATA
11	DP	I/O	USB DATA
12	GND		GND

4 Product appearance dimensions

4.1 Physical drawings of the product

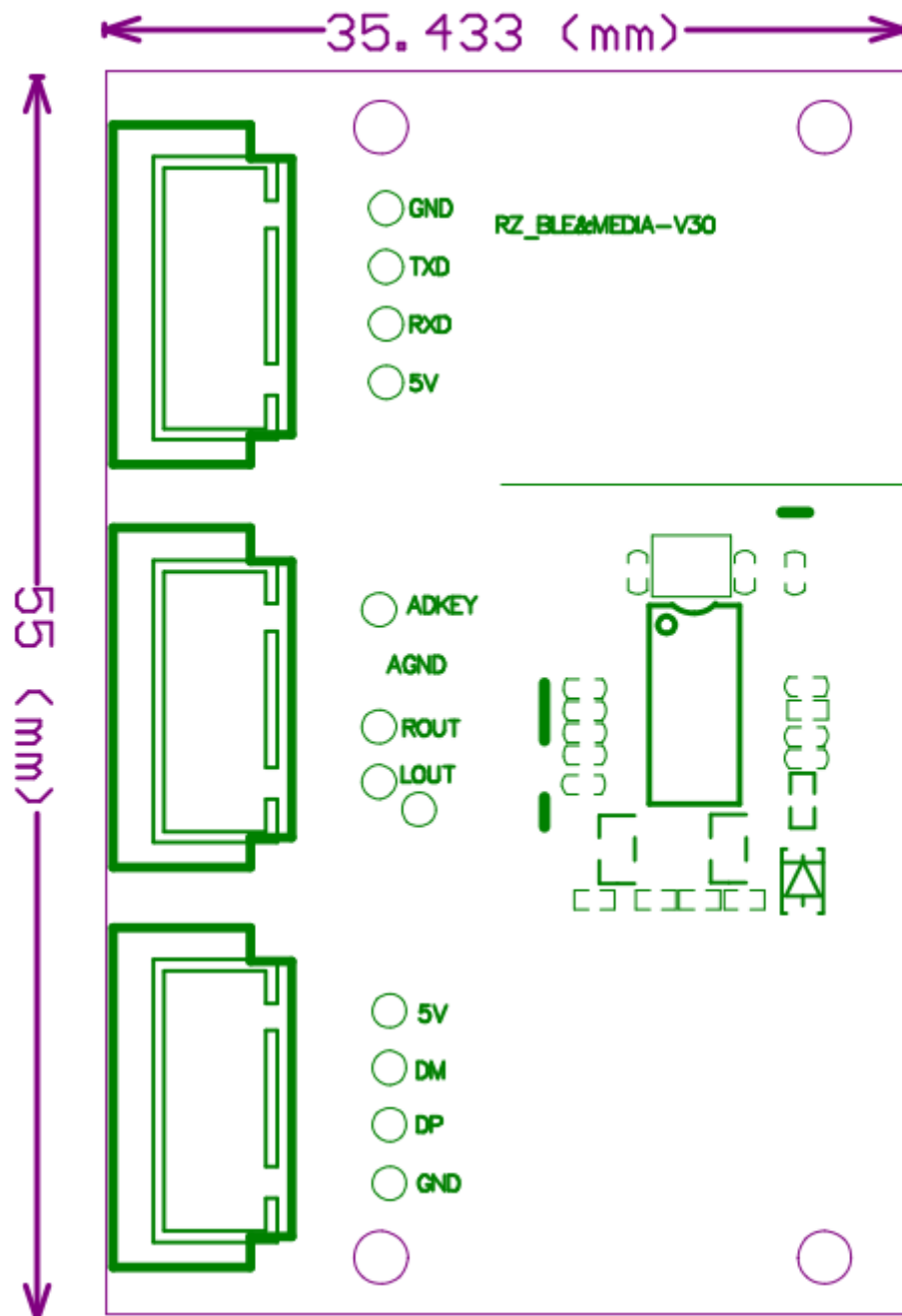
W x Ln: 55 x 35.4mm



H:8.0mm

4.2 Product dimension drawings

(Unit: mm).



5 Product key device information

No.	Parts	Specification	Manufacturer	Note
1	Master chip	AC6925C	Zhuhai Jieli Technology Co., Ltd	
2	PCB	RZ_BLE&MEDIA-V3.0	Xinfeng Juchuang Electronic Technology Co., Ltd	
3	Crystal oscillator	3225 24MHZ 12PF +/-10PPM -20~+85℃	OUSHANG	

FCC Statement

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.

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.

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

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.

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

Important Note:

In the event that these conditions cannot 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 cannot 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.

Radiation Exposure Statement:

This module support BT(2402-2480MHz) which compliance with part 15.249 and apply for single module approval .

The module is limited to OEM installation only.

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

OEM integrator shall equipped the antenna to compliance with antenna requirement part 15.203& 15.204 and must not be co-located or operating in conjunction with any other antenna or transmitters. And OEM host shall implement a Class II Permissive Change (C2PC) or a new FCC ID to demonstrate complied with FCC standard.

The OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

The final end product must be labelled in a visible area with the following: "Contains FCC ID:2A5EZ-MEDIAV30"