
ValenceTech Bluetooth module for OSIM uDivine

INTRODUCTION

The ValenceTech Bluetooth module for OSIM uDivine offers the communication between OSIM uDivine and Apple iOS device via Class 2 Bluetooth system v2.1+EDR. The primary components include CSR BM150 Bluetooth module, MCU, optical coupler, LDO and Apple's authentication IC.

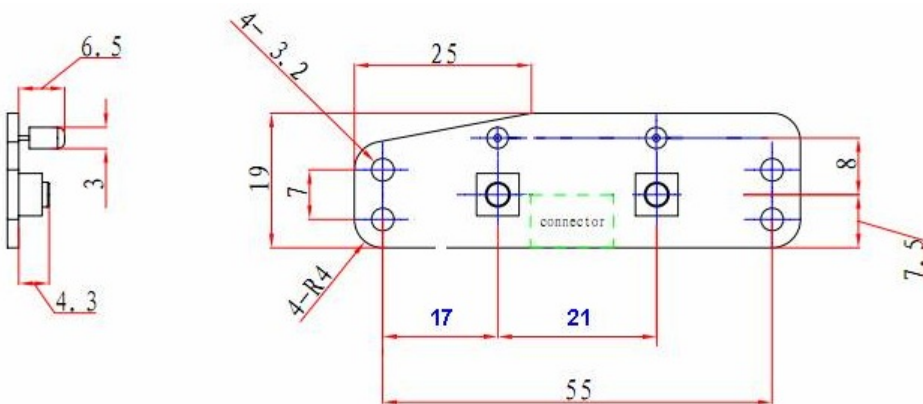
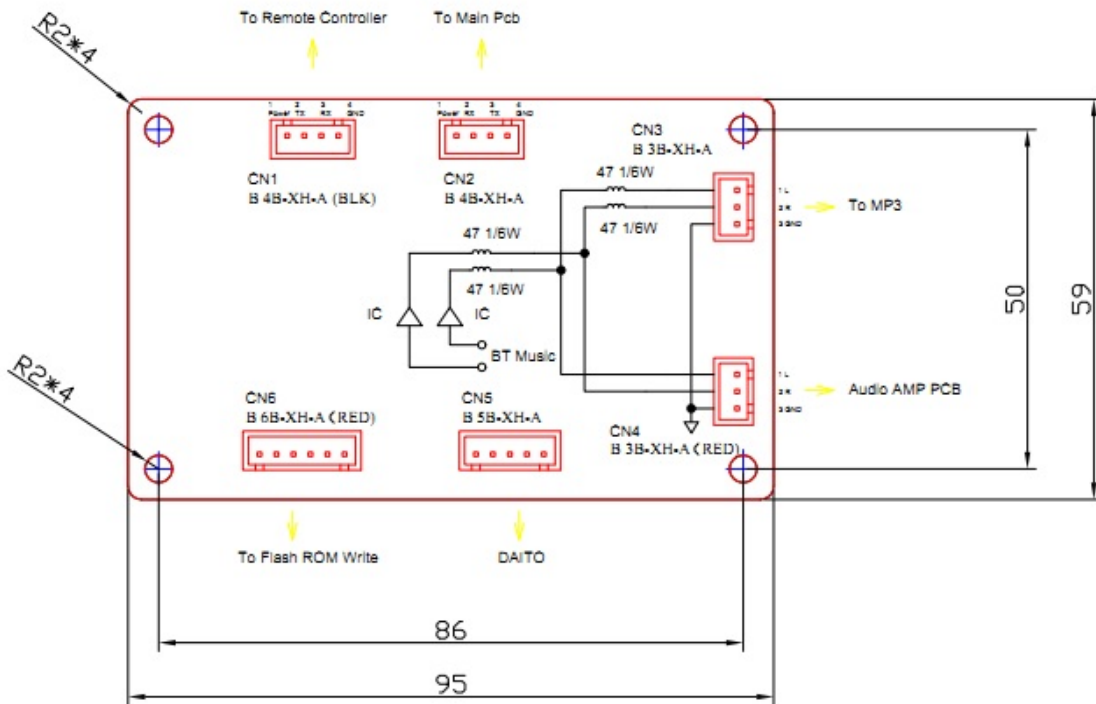
HARDWARE

Specifications

Frequency Band:	2.4GHz ~ 2.48GHz unlicensed band
Power:	from uDivine Main Board
Interfaces:	8 connectors – CN1, CN2 4-pins (1 x 4 connector 2.50mm pitch) CN3, CN4 3-pins (1 x 3 connector 2.50mm pitch) CN5, 8 5-pins (1 x 5 connector 2.50mm pitch) CN6 7-pins (1 x 7 connector 2.0mm pitch) CN7 6-pins (1 x 6 connector 2.54mm pitch)
Bluetooth System:	v2.1+EDR (Class 2)
Modulation:	only GFSK applied.
Antenna:	2.4GHz Inverted-F and Meander Line Antennas on PCB
Operating: Temperature Range	0 - 70°C
Indicators:	2 LED (Red and Blue)
Buttons:	2 buttons (1 for Bluetooth power on/off and 1 for Bluetooth pairing)
Current consumption:	Operating 130mA
RF receives sensitivity:	-90dBm typically
RF power:	10mW max.
Data Rate:	2kbytes/s

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MECHANICAL SIZE



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PIN LAYOUT

Connector (CN)	Pin	Description
1 (To remote)	1	Power
	2	TX
	3	RX
	4	Gnd
2 (To uDivine Main board)	1	Power
	2	TX
	3	RX
	4	Gnd
3 (To MP3)	1	L
	2	Gnd
	3	R
4 (To Audio Amp)	1	L
	2	Gnd
	3	R
5 (To Key PCB)	1	Gnd
	2	S1
	3	S2
	4	Led1
	5	Led2
6 (PGM_BT)	1	GND
	2	MISO
	3	MISI
	4	CLK
	5	CSB
	6	3V3
7 (PCM AP928)	1	SCK
	2	SDI
	3	RSTB
	4	SDO
	5	PGM
	6	3V3
	7	GND
8 (On Key PCB)	1	GND
	2	S1
	3	S2

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	4	Led1
	5	Led2

Caution:

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.

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

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

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.

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Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Information for the OEMS Integrators

This device is intended for OEM integrators only. Please see the full grant of equipment document for restrictions.

Label Information to the End User by the OEM or Integrators

If the FCC ID of this module is not visible when it is installed inside another device, then the outside of the device into which the module is installed must be labelled with “Contains FCC ID: ARG-OS-818 and IC: 10142A-OS818”.