

BURSON_BT Bluetooth module manual

1. Product features:

Bluetooth V5.0 version specification

RF power level II

Dual mode, including traditional Bluetooth mode and low-power Bluetooth mode BLE

Built-in 16Mb flash memory, the expansion interface can connect to a maximum of 64Mb SPI flash memory

Supports SBC, MP3, AAC, APT-X, APTX-L, APTX-LL, APTX-HD(CSR8675) and other audio transmission formats

Support iPhone battery power display, operation voice prompts and other functions

Supports A2DP1.2, AVRCP1.4, HFP1.6 (including support for WBS and mSBC), HSP1.2 and other protocols

Audio output interface: I2S

RoHS lead-free production process

2. Application areas

High-quality top-quality stereo wireless headphones

High-fidelity speakers and stereos

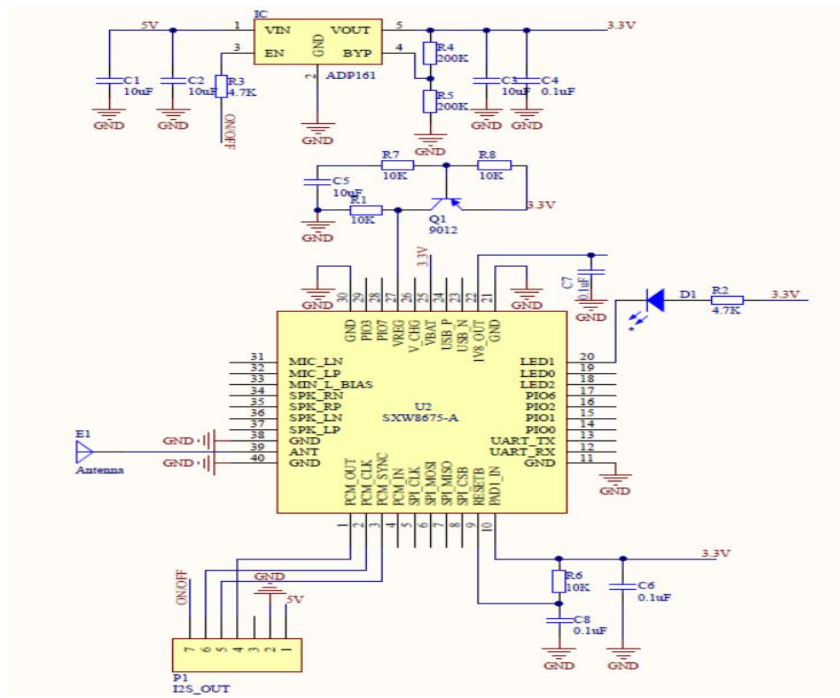
High-quality multimedia speakers

TV wireless sound system

Bluetooth car audio and video

Various high-end Bluetooth applications

3. Internal schematic block diagram



Integration instructions for host product manufacturers according to KDB 996369 D03 OEMManual v01

Conditions on using Burson Audio Melbourne Pty Ltd (Australian Company Number 122 902 498) regulatory approvals:

A. Customer must ensure that its product (The " Bluetooth Module") is electrically identical to Burson Audio Melbourne Pty Ltd (Australian Company Number 122 902 498) reference designs. Customer acknowledges that any modifications to Burson Audio Melbourne Pty Ltd (Australian Company Number 122 902 498) reference designs may invalidate regulatory approvals in relation to the CUSTOMER Product, or may necessitate notifications to the relevant regulatory authorities.

B. Customer is responsible for ensuring that antennas used with the product are of the same type, with same or lower gains as approved and providing antenna reports to Burson Audio Melbourne Pty Ltd (Australian Company Number 122 902 498)

C. Customer is responsible for regression testing to accommodate changes to Burson Audio Melbourne Pty Ltd (Australian Company Number 122 902 498) reference designs, new antennas, and portable RF exposure safety testing/approvals.

D. Appropriate labels must be affixed to the CUSTOMER Product that comply with applicable regulations in all respects.

E. A user's manual or instruction manual must be included with the customer product that contains the text as required by applicable law. Without limitation of the foregoing, an example (for illustration purposes only) of possible text to include is set forth below:

2.2 List of applicable FCC rules

FCC Part 15 Subpart C 15.247

2.3 Specific operational use conditions

Radio Technology : Bluetooth EDR

Operation frequency : 2402-2480MHz

Channel No. : 79 channels

Channel Separation : 1MHz

Modulation : GFSK, $\pi/4$ -DQPSK, 8DPSK

Antenna Type : Dipole Antenna, max gain 3.46dBi

The module can be used for mobile or portable applications with a maximum 3.46dBi antenna. The host manufacturer installing this module into their product must ensure that the final composite product complies with the FCC requirements by a technical assessment or evaluation to the FCC rules, including the transmitter operation. The host manufacturer 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 shown in this manual.

2.4 Limited module procedures

Not applicable. The module is a Single module and complies with the requirement of FCC Part 15.212.

2.5 Trace antenna designs

The antenna used is the Rod Antenna on the module.

2.6 RF exposure considerations

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 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.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter.

2.7 Antennas

Antenna Specification are as follows:

Antenna Type: Dipole Antenna

Antenna Gain(Peak):3.46 dBi (Provided by customer)

This device is intended only for host manufacturers under the following conditions:

The transmitter module may not be co-located with any other transmitter or antenna;

As long as the conditions above are met, further transmitter test will not be required. However, the host manufacturer is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

2.8 Label and compliance information

Host product manufacturers need to provide a physical or e-label stating “Contains FCC ID: 2BLLP-BURSONBT” With their finished product.

2.9 Information on test modes and additional testing requirements

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Antenna Type : Dipole Antenna, max gain 3.46dBi

Host manufacturer must perform test of radiated & conducted emission and spurious emission, etc according to the actual test modes for a stand-alone modular transmitter in a host, as well as for multiple simultaneously transmitting modules or other transmitters in a host product.

Only when all the test results of test modes comply with FCC requirements, then the end product can be sold legally.

2.10 Additional testing, Part 15 Subpart B disclaimer

The modular transmitter is only FCC authorized for FCC Part 15 Subpart C 15.247 that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. If the grantee markets their product as being Part 15 Subpart B compliant (when it also contains unintentional-radiator digital circuitry), then the grantee shall provide a notice stating that the final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.