

BTM8630 Product User Guide

BTM8630 is a Bluetooth stereo module which can be used to design Bluetooth stereo speakers. Besides, BTM8630 can be as a direct connection to any Bluetooth mobile phone when designed into stereo speakers device.

Interface

- PIO

BTM8630 has a total 8 programmable I/O terminals and 3 LEDs. These are controlled by firmware running on the device.

Microcontroller

The microcontroller (MCU), interrupt controller and event timer run the Bluetooth software stack and control the radio and host interfaces. A 16-bit reduced instruction set computer (RISC) microcontroller is used for low power consumption and efficient use of memory.

Audio Interface

The audio interface circuit consists of a audio CODEC, dual audio inputs and outputs. The CODEC supports playback and recording of audio signals at multiple sample rates with a resolution of 16-bit.

The ADC and the DAC of the CODEC each contain two independent channels. Any ADC or DAC channel can be run at its own independent sample rate.

The audio input circuitry consists of a dual audio input that can be configured to be either single ended or fully differential and programmed for line input.

The audio output circuitry consists of a dual differential class A-B output stage.

Clock Input and Generation

The reference clock for the system is generated from a TCXO or crystal input 26MHz. All internal reference clocks are generated using a phase locked loop, which is locked to the external reference frequency.

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Radio

Common TX/RX terminal simplifies external matching; eliminates external antenna switch.

BIST minimises production test time. No external trimming is required in production

Full RF reference designs available

Bluetooth V4.0 Specification compliant

Bluetooth Software Stacks

CSR's Bluetooth Protocol Stack runs on the on-chip and MCU in a variety of configurations:

- Standard HCI (UART or USB)
- Fully embedded RFCOMM
- Customised builds with embedded application code

Power

For Class 2 Bluetooth applications, the regulator used to derive 3.3V

Federal Communication Commission Interference 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 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 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.

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FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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

1. The antenna must be installed such that 20 cm is maintained between the antenna and users, and
2. The transmitter module may not be co-located with any other transmitter or antenna,

IMPORTANT NOTE:

In the event that these conditions can not 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 can not 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.

End Product Labelling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users.

The final end product must be labelled in a visible area with the following:

“Contains FCC ID: ZVA04”.

Manual Information to the End User

The OEM integrator 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 Module must be installed in BLU-RAY DISC HOME THEATER SOUND SYSTEM.