

Naim Audio Bluetooth Module to be fitted to Naims Audio products.

Model: BLUE

Notices

FCC Statement

“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.”

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 and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures.”

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.

Only operate the device in accordance with the instructions supplied. This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IC Statement

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions : (1) this advice may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

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.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure. Users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 RF, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de RF.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. Cet équipement est conforme à l'exposition aux rayonnements IC limites établies pour un environnement non contrôlé.

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210. Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NNB-003 du Canada.

This Category II radiocommunication device complies with industry Canada Standard RDD-310.

Ce dispositif de radiocommunication de catégorie II respecte la norme CNR-310 d'Industrie Canada.

To meet the FCC and Industry host device labeling requirements, any host equipment incorporating the BLUE module must include the FCC ID/IC certification number on the host label as follows:

Contains FCC ID: 2ACURBLUE or Contains transmitter module FCC ID: 2ACURBLUE

Contains IC: 12217A-BLUE or Contains transmitter module IC: 12217A-BLUE

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

The OEM integrator is responsible for ensuring that their end-product complies with additional compliance requirements required with this module installed, such as digital device/unintentional emissions requirements and any additional potential RF Exposure requirements, such as portable use or co-location requirements.

Guarantee Information

To the fullest extent permitted by applicable law, Naim Audio Ltd. disclaims all liability for any loss or damages whether real, incidental or consequential that arise from using this product. Naim Audio Limited, its agents and representatives, cannot be held responsible for the loss of any data or content from a Naim/NaimNet server, however caused. Do not under any circumstances allow anyone to modify your Naim equipment without first checking with the factory, your retailer, or your distributor.

Unauthorised modifications will invalidate your guarantee

This product can be recycled. Products bearing this symbol must NOT be thrown away with normal household waste. At the end of the product's life, take it to a collection point designated for recycling of electrical and electronic devices. Find out more about return and collection points through your local authority. The European Waste Electrical and Electronic Equipment (WEEE) Directive was implemented to dramatically reduce the amount of waste going to landfills, thereby reducing the environmental impact on the planet and on human health. Please act responsibly by recycling used products. If this product is still useable, consider giving it away or selling it.





Rayson

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文件編號：

<h1 style="margin: 0;">Approval Sheet</h1>		Date : 17-June-2013
Customer		
Part Number		
Description	Bluetooth Stereo FLASH Module	
Customer's Project		
Manufacturer	Rayson Technology Co., Ltd	
Model Name	BTM867	
Supplier Level : <input checked="" type="checkbox"/> New Source <input type="checkbox"/> Second Source		
Contact Person : _____ Tel : <u>+886-3-5633666</u>		
Approval status : E.E. engineer : _____ <input type="checkbox"/> Approval <input type="checkbox"/> Reject M.E. engineer : _____ <input type="checkbox"/> Approval <input type="checkbox"/> Reject P.E. engineer : _____ <input type="checkbox"/> Approval <input type="checkbox"/> Reject <div style="text-align: right;">Approval : _____</div>		
Accessories : <input checked="" type="checkbox"/> Specification <input checked="" type="checkbox"/> Sample <input type="checkbox"/> Drawing <input type="checkbox"/> Test Report <input type="checkbox"/> AT Command sets <input type="checkbox"/> Packing Diagram		



Features

- Bluetooth® v3.0 specification fully qualified software
- Bluetooth v4.0 specification compliant hardware
- Radio includes integrated balun and RF performance of 10dBm transmit power and -90dBm receive sensitivity
- 80MHz RISC MCU and 80MIPS Kalimba DSP
- 16Mb internal flash memory (64-bit wide, 45ns); optional support for 64Mb of external SPI flash
- Stereo codec with 2 channels of ADC and up to 6 microphone inputs (Includes bias generators and digital microphone support)
- Support for CSR's latest CVC technology for narrow-band and wideband voice connections including wind noise reduction
- Audio interfaces: I²S, PCM and SPDIF
- Serial interfaces: UART, USB 2.0 full-speed, master and slave bit-serialiser (I²C and SPI)
- Integrated dual switch-mode regulators, linear regulators and battery charger
- 3 hardware LED controllers (for RGB) and ability to drive LCD segment display directly
- Support for up to 6 capacitive touch sensor inputs
- 6.5 x 6.5 x 1mm, 0.5mm pitch 112-ball VFBGA
- Green (RoHS compliant and no antimony or halogenated flame retardants)

General Description

The BlueCore® CSR8670™ BGA consumer audio platform for wired and wireless applications integrates an ultra-low-power DSP and application processor with embedded flash memory, a high-performance stereo codec, a power management subsystem, LED and LCD drivers and capacitive touch sensor inputs in a SOC IC. The dual-core architecture with flash memory enables manufacturers to easily differentiate their products with new features without extending development cycles.

CSR's popular BlueCore5-Multimedia® platform is software-portable to the BlueCore® CSR8670™ BGA, with easy migration of a broad range of solutions from CSR's eXtension partners. This migration enables rapid time-to-market deployment of a broad range of consumer electronics products.

The enhanced Kalimba DSP coprocessor with 80MIPS supports enhanced audio and DSP applications.

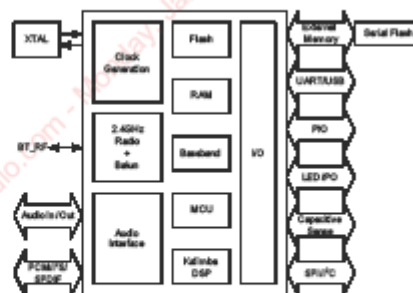
BlueCore® CSR8670™ BGA

Low-power Solution for DSP Intensive Audio Applications

Production Information

CSR8670C

Issue 2



CSR8670 BGA Data Sheet

Applications

Home Entertainment Ecosystem

- TVs
- Smart remote controllers
- Wired or wireless soundbars
- Wired or wireless speakers and headphones

Tablets / PCs / Mobile Connectivity

- Wearable audio (on-the-go)
- Wearable audio with sensors (health and well-being applications)
- Wired or wireless stereo headphones for music/gaming/multimedia content
- Wired or wireless speakers
- Wired or wireless speakerphones
- Mono headsets for voice

The audio codec supports 2 ADC channels, up to 6 microphone inputs, stereo output and a variety of audio standards.

See *CSR Glossary* at www.csrsupport.com.

Production Information

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CS-127997-DSP2
www.csr.com

Bluetooth® Module

Rayson

CSR8670 Class2 Stereo Flash Module

BTM-867

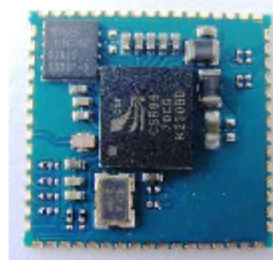
This is a Bluetooth Class2 (max 4dBm) dual mode module. It is based on the most advanced CSR8670 chip set and the latest ADK, it can support Bluetooth V4.0 standard. The new RISC MCU core and 80MIPS Kalimba DSP Co-Processor enable not the existing Bluetooth multi-media function such as echo cancellation, noise reduction and stereo audio (A2DP audio) communications but also extended features for future. The highly integrated hardware includes high quality stereo DAC, high current (200mA) battery charger, switch regulator and touch panel interface. This makes the system design easier and save costs of external components. The host Interfaces include USB and UART, that are programmable for data communication, module control or firmware upgrade.

The powerful and flexible design allows the module to support HSP/HFP/A2DP/AVRCP SPP, PBAP, all kinds of Bluetooth profiles. Furthermore, the aptX, AAC, MP3 HIFI audio streaming are supported as well as digital audio bus such as PCM, I2S or SPDIF.

Features

- The module is a Max.4dBm(Class2) module.
- Fully Qualified Bluetooth v4.0.
- Integrated Switched-Mode Regulator.
- Integrated Battery Charger (200mA)
- 16Mb internal flash memory (64-bit wide,45ns)
- Optional support for 32Mb of SPI flash (Option)
- Embedded Kalimba DSP Co-Processor.
- Integrated 18-bit Stereo Audio CODEC.
- Support for CSR's latest CVC technology for narrowband and wideband voice connections including wind noise reduction.
- Support Host Interface: USB2.0 or UART.
- Audio interfaces: I2S, PCM and SPDIF
- SBC, MP3, AAC, Faststream ,APT X codec support.
- APTX low-latency including support for SCMS-T
- HSP / HFP / A2DP / AVRCP/ PBAP / SPP
- Bluetooth Low Energy compatible
- RoHS compliant.
- Small outline: 17.8 x15.8 x1.8mm

Outline



Applications

- Stereo Wireless Headsets.
- Wired or wireless speakers and headphones.
- Smart remote controllers.
- TVs
- Audio adaptors