

# EGIGATEK STM8635 Brief

*(CSR8635 based Bluetooth 4.0 stereo Module)*

## 1. Description

STM8635 BT4.0 stereo module is a perfect solution for enhanced audio applications, such as stereo headphones. It can be connected with any bluetooth devices in an operating range. It is slim and light so the designers can have better flexibilities for the product shapes.

STM8635 Bluetooth® module complies with bluetooth V4.0 specification. It supports HSP, HFP, A2DP, AVRCP...etc. profiles. It integrates an ultra-low-power DSP and application processor with embedded flash memory, a high-performance stereo codec, a power management subsystem and LED drivers. The dual-core architects easily differentiate their products with new features without extending development cycles. It integrates RF Baseband controller, antenna,... etc. and provide UART interface, programmable I/O, stereo speaker output, microphone input,... etc. The microphone function has CSR's latest CVC technology for narrowband and wideband voice connections including wind noise reduction.

## 2. Features

- Small overall dimension(23mm x 15mm x 1.9mm)
- Bluetooth Specification V4.0(Dual Mode)
- Class 1, Class 2 and Class 3 support
- Physical connection as SMD type
- 80MHz RISC MCU and 80MIPS Kalimba DSP
- Support for 64Mb of external SPI flash
- Stereo codec with 2 channels ADC and one microphone input includes bias generator
- The 6<sup>th</sup> generation CVC technology for narrow-band and wideband voice connections including wind noise reduction
- iOS battery status monitor
- Smart Apps support (GAIA)
- Music Enhancements: SBC, MP3, AAC, 5-band configurable EQ and

stereo widening

- Audio Interfaces: stereo audio ADC with line input and stereo audio DAC
- Serial Interfaces: UART,USB 2.0,I2C EEPROM
- Support HSP V1.2, HFP V1.6, A2DP V1.2, AVRCP V1.0 profile
- Multipoint support for A2DP connection to 2 A2DP source for music playback
- 3 Hardware LED controllers (for RGB)
- Built-in RF combo filter
- Internal charger for max. 200mA
- External charge to 1A (depend on the precision resistor)

### 3. Application

- Handsfree car kits
- Wired or wireless stereo soundbars
- Wired or wireless stereo speakers
- mic stereo headset or headphone

### 4. Physical Characteristic

