





F-6008A  
Bluetooth Module  
Block Diagram

## 1. General Description

The BK8008 chip is a highly integrated single-chip Bluetooth audio device. It integrates the high-performance transceiver, rich features baseband processor, and Bluetooth audio profile. The BK8008 cache based architecture enables it is fully programmable with any application, that it may be used for control and multimedia hybrid application. The internal dual stereo ADC converts the stereo line in input to digital audio that enables the line in use the digital equalizer. Hardware equalizer and accelerator offload the MCU, and make it suitable for low power headset application.

- Bluetooth 3.0 compliant
- -92 dBm sensitivity for 2 Mbps mode and 5 dBm transmit power
- A2DP v1.2, AVRCP v1.0 and HFP v1.5 profile
- Integrated 96 dB SNR stereo ADC and stereo DAC
- Five bands hardware equalizer
- Digital equalizer for stereo line in
- Hardware accelerator for low power
- Full duplex hands-free speakerphone
- Up to 250 mA charge controller

## 1.2. Applications

### 1.1. Features

- Operation voltage from 2.8 V to 4.2 V

- Bluetooth stereo speaker
- Bluetooth stereo headset
- Bluetooth control and multimedia hybrid

