

## PRODUCT OVERVIEW

The Airoha AB158x series provides an advanced single-chip solution which integrates baseband and radio for intensive stereo, mono, or TWS (AiroStereo) audio applications. The user can evaluate and configure each function of the AB158x series, including ANC and Audio Transparency (AiroThru). Interfaces include a touch pad, GPIO, LED, UART, SPI, I2S can be implemented on the Evaluation Kit (EVK) motherboard.

The EVK can be used as a typical Bluetooth audio device which is designed for evaluating functions and debugging. The user can configure each function and adjust parameters of firmware via the Airoha configuration tool.

The EVK can also connect with the Airoha Test Control Board (TCB) to perform mass production calibration and functional tests with the Airoha Mass Production Tool.

AB158x series chipsets currently include AB1585, and AB1588 with each chipset providing additional support for different features. All the supported features and functions can be implemented on the EVK with the corresponding chipset modules and daughter boards.

AB158x series supports ANC (Active Noise Cancellation) to provide a better experience while listening music. All AB158x series chipsets provide premium audio performance, crystal clear voice, and advanced music quality in most Bluetooth audio headset applications. Next generation echo cancellation and noise reduction schemes improve the audio quality of voice calls on headset products. MP3 audio playback can be supported via SDIO on AB158x.

## BENEFITS

- A flexible power supply block, including USB 5V, DC 5V adapter jack, and a battery +/- connector, providing users with multiple options to configure their design.
- High integration of a variety of interfaces such as SPI, I2C, touch pads, and an ANC interface to enable connections with corresponding daughter boards and implementation of each function with the EVK motherboard.
- Convenient audio interfaces such as an I2S audio jack to evaluate the audio performance.
- User-friendly interfaces for power-on, reset, and GPIO control.

## TARGET APPLICATIONS

- The implementation and verification of all features and functions that are supported by AB158x series chipsets, such as:
  - Stereo headset/headphones;
  - TWS headsets; and
  - ANC headsets and headphones.

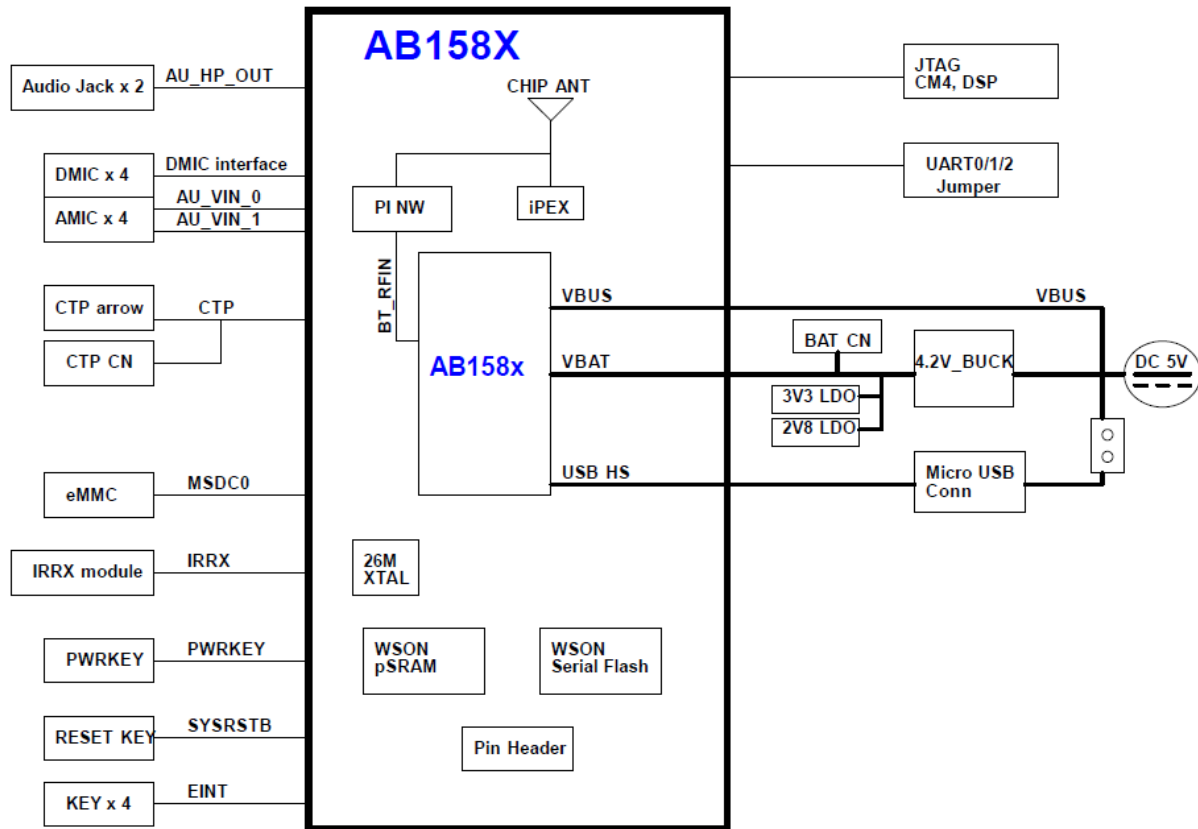


Figure 1. Block Diagram of AB158x Series EVK

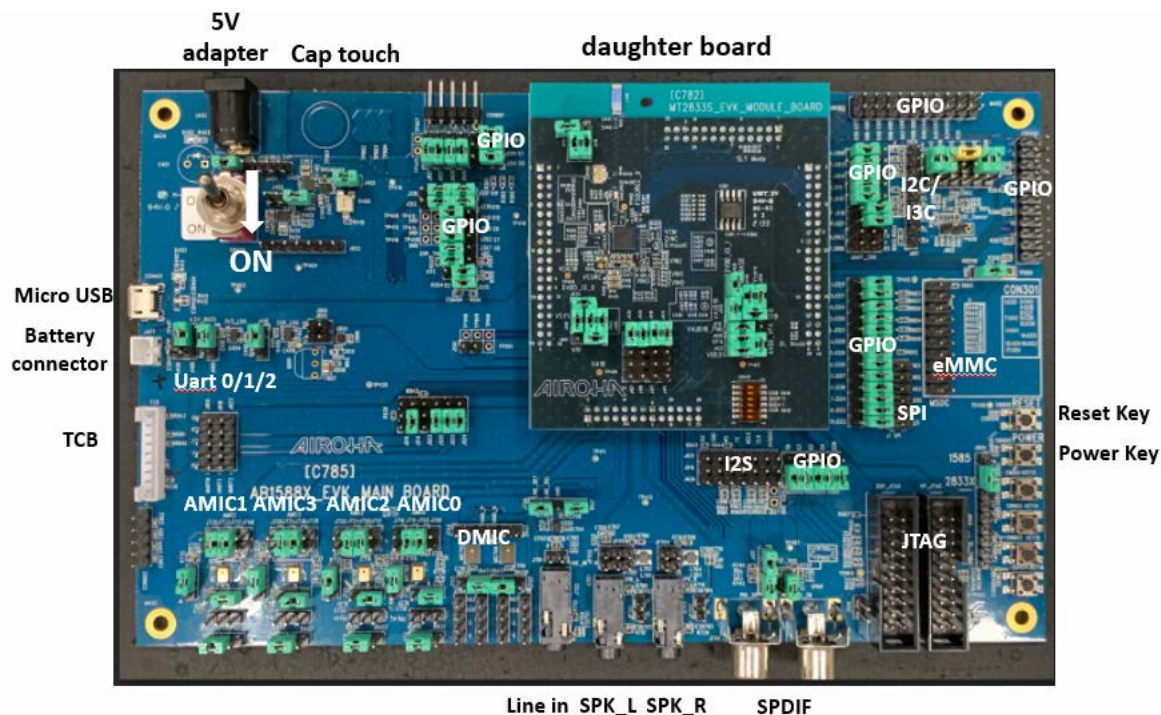


Figure 2. Function Block of AB158x Series EVK

## FEATURES

### Peripheral Connections

- UART
- TCB
- Touch pad interface
- I2C
- Key

### Control and Test Points

- Power supply
- Module adaptor board
- Keys and LEDs
- JTAG

### Audio Interface

- Analog audio
- Digital MIC and analog ECM Mic
- Audio signal test points
- I2S
- ANC interface
- SPDIF