

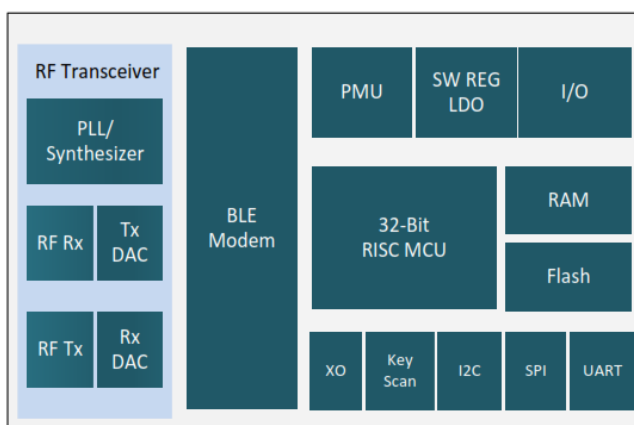
AB1601 Product Brief

BT4.2 Low Energy, Single Mode SoC

Product Overview

AB1601 is an optimized Bluetooth 4.2 single mode solution which integrates baseband and radio for wireless applications including wireless keyboard, remote controller, game controller, and wearable devices. It incorporates Airoha's best-in-class radio transceiver which can reach the ultra-low power consumption for longer battery life. A 32bit RISC MCU and 64KB internal flash provides the high performance and flexibility for customer SW design. It also integrates the ADC circuit to support microphone for the voice input function. To meet the various demands of wireless sensor applications, AB1601 also provides the option to support external power amplifier for long range application

Block Diagram



Key Features

- 32bit RISC MCU with 64KB internal flash
- 3-axis quadrature signal decoder
- Integrated 1.8V and 1.4V buck switching regulator
- Integrated 1.8V LDO regulator
- Direct test mode interface support
- Support for external serial flash interface
- Real time clock support
- External 32.768KHz crystal support
- Digital RSSI Indicator support
- Battery monitor support
- AES128 encryption and decryption
- Integrate ADC support for voice search function
- Support for external power amplifier
- RoHS Compliant
- Package QFN 5x5 40 pin

Applications

- Sports and Fitness Devices
- Wireless Keyboard
- Smart Remote Control
- Smart Watch
- Home Automation Devices
- Health Care Devices

Specifications

Standard	Bluetooth v4.2 Single Mode
Bluetooth Profile	ANP v1.0 FMP v1.0 PXP v1.0 HOGP v1.0 CSCP v1.0 HRP v1.0 RSCP v1.0
Output Power	Typical 4 dBm
Sensitivity	-93 dBm
Flash	64KB
RAM	12KB
IC Package	QFN 5x5 40 pin
Physical Intefaces	UART, I2C, SPI
GPIO	19
AIO	8
Temperature Range	-40 - 85°C
Power Consumption	Peak Tx/Rx : 8mA Sleep : 10uA Deep Sleep : 2uA

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