

## BP1502AV Embedded AV Profile Bluetooth Module

### Overview

The BP1502AV is a high performance Bluetooth module for embedded AV Bluetooth applications. Integrated with Flash, Crystal, Radio, Link control, and CPU, this all-in-one module provides the potential to cost down client's BOM cost. The only external components needed are antenna, CODEC and components for power supply and UI circuitry.

BP1502AV is also designed for low power applications including sleep and deep sleep modes, and operates from a single 3.3V supply. Based on 32bits ARM7TDMI processor core, BP1502AV is equipped with excess processing bandwidth for integrated AV/Headset/Handsfree profile processing.

With compliance to Bluetooth 1.2 standard, the BP1502AV is able to provide faster connection, Adaptive Frequency Hopping (AFH) and extended SCO link. The latter two features help on improving voice quality.

BP1502AV offers great flexibility by external CODEC and configurable GPIO pins. With free choice of CODEC and suitable definitions of GPIO pins, Customers can easily fit BP1502AV into their product design and greatly shorten time-to-market.

### BP1502AV Module



actual size



4X actual size

### Applications

- Stereo headset (Sink)
- Stereo/Mono headset supporting music-call switching (Ultimate headset)
- General Purpose Audio Adapter to stream music from an analog source (Source)
- MP3 player with wireless stereo source capability

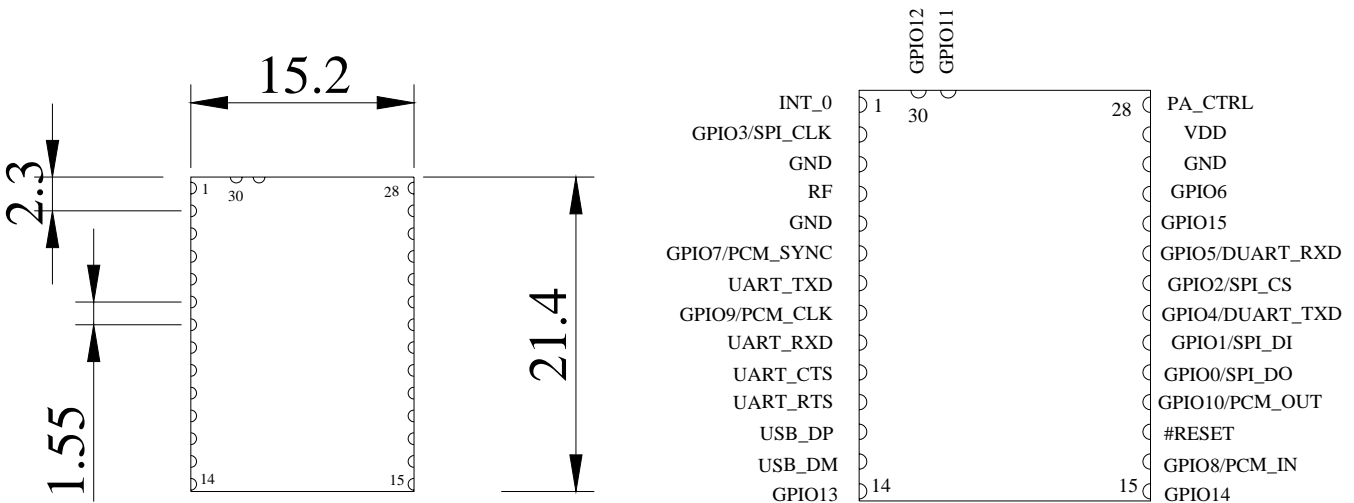
### Features

- Supports AV/HeadSet/Handsfree profile (source/sink)
- Optimized for AV applications
- CD sound quality
- Class 1(+17dbm TX) operation is supported with an LNA/power amplifier interface
- BQB pre-qualified
- Bluetooth 1.2 Compliant
- Full speed USB 2.0 compatible
- Complete Co-location and Co-existence solutions with 802.11 supported through AWMA, AFH and SFH
- 16 General Purpose I/O (interruptible)
- PCM audio (1-channel)
- SPI interface
- 3 dedicated interrupt lines
- 3 dedicated chip select line
- Certified with Microsoft's upper layer stack
- Long battery life (two 1.5V AAA batteries lasts 12 hours)
- On-chip crystal tuning

# Technical Specifications

- Output Power +4dBm for Class2 device, +17dBm for Class1 device
- RX Sensitivity: -86dBm
- Working distance: 10M or above (depends on antenna and output power)
- Frequency: 2.4GHz unlicensed ISM band
- DC power: +3.0V~3.6V
- All Bluetooth data rates (57.6/723.2 Kbits/sec)
- Park, sniff and hold modes
- 8M flash external memory
- Point-to-point, point-to-multipoint, and scatternet
- Power consumption: Decoder(163 mW, 60mA), Encoder(165mW, 61mA)
- SNR < 82dB
- Sampling rate: 44.1KHz

## BP1502AV Footprint (Top View)



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