

Archband achieves SMIC qualified 96dB Hi-Fi Audio CODEC IP in 65nm

Highlights

- **Ultra Low Power**
- **Ultra Compact Size**
- **96dB SNR**
- **-101dBV In-Band Noise**
- **Automatic Level Control**
- **Embedded Regulators**
- **Line in, Microphone**
- **Lineout, Headphone**
- **BTL Speaker Driver**

Also Offers...

- **Audio ADCs**
- **Audio DACs**
- **High-speed ADCs**
- **SAR ADCs**
- **High-speed DACs**
- **PLLs**
- **DLLs**
- **LDOs**
- **LVDS IOs**
- **Bandgaps**
- **Analog Blocks**

San Jose, CA, Jan. 14, 2013 — Archband Labs Inc, a Silicon-Valley based mixed-signal analog IP vendor, today announced the immediate availability of its next generation silicon proven, low power and high performance stereo audio CODEC IP — “AR82S01” in SMIC 65nmLL logic process.

The company's premium audio CODEC IP has successfully passed SMIC's 3rd-party IP qualification program. The IP delivers 96dB SNR performance and -101dBV total in-band noise with ultra compact size. Such high-end performances are perfectly desirable for SOC companies to make design-wins in HDTV, PMP, MID, TV set-top, IP phone, tablets, Car Audio, and e-Book markets.

The silicon proven CODEC macro IP employs oversampling sigma-delta architecture with optimized ultra low power, low noise and compact design architecture. The CODEC delivers high rejection from substrate and supply noise typically present in SoCs, and robustness to process, voltage and temperature variations.

The AR82S01 CODEC IP contains stereo analog-to-digital converter (ADCs) and stereo digital-to-analog converters (DACs), featuring with digital and analog microphone and line input peripherals, microphone biasing, headphone and line output peripherals, BTL speaker amplifier, automatic level control (ALC), digital filters, voltage regulators, current sensing, short circuit protection, and thermal protection.

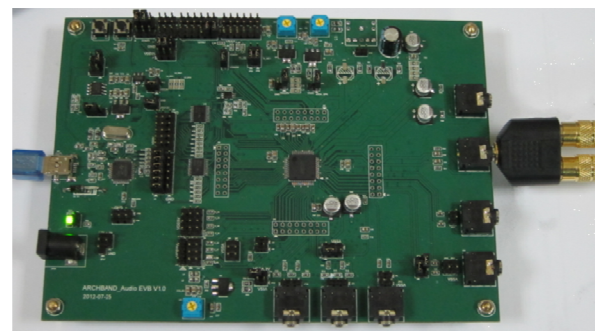
The CODEC IP supports standard digital audio interfaces like I2S, DSP-mode with master and slave modes, and data programming interfaces such as I2C, SPI, MCU as well. The CODEC IP contains on-chip band-gap and voltage reference circuitry to ease system level implementation and reduce BOM cost.

Archband's audio IPs have been licensed by many customers since 2003, including top IPO semiconductor manufacturing companies. The company's audio IP family contains 16-24bit audio CODEC, ADC, DAC, and audio peripherals like microphone bias, headphone driver, speaker amplifier, digital microphone interface, PWM controller.

The AR82S01 evaluation board is available to customers. The EVB is single USB-powered with software interface for quick turn-around evaluation.

Benefits:

- Low Power Design
- Compact Size
- High-end Performance
- Silicon Proven
- EVB Available



About Archband

Founded in 2000, Archband provides cutting-edge low power analog mixed-signal IPs and solutions for SOC, turnkey solution companies and ODM manufacturers. Delivering the industry's best in class analog mixed-signal technologies, Archband has proven-tracking records in working with worldwide customers for low power audio consumer electronics, medical measurement, wireless and wired communication products.

For further information or to be contacted by a sales representative, [please click here](#) .

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