

FEATURES

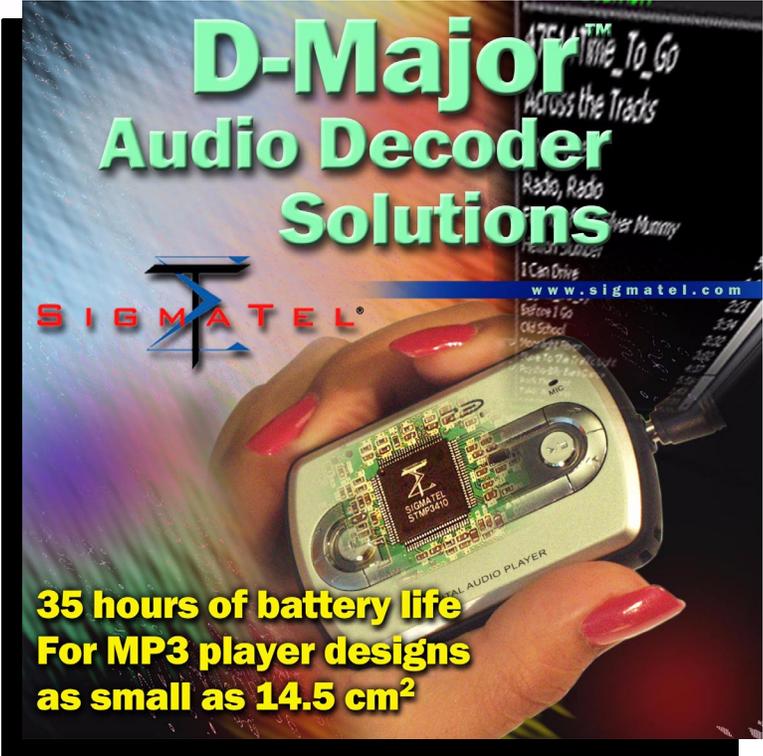
- True Single-Chip Solution.
- Supports multiple decoding algorithms including MP3, WMA, WMA DRM (Digital Rights Management), and IMA-ADPCM.
- Flexible software architecture allows for the integration of additional decoding algorithms.
- Upgradeable firmware.
- Hardware Interfaces for NAND Flash, SmartMedia, MMC, Secure Digital, NOR Flash, CD, IDE, SDRAM and CompactFlash.
- High-performance 18-bit Sigma-Delta technology.
- Voice record in ADPCM format.
- Low noise with SNR >93 dB.
- Dynamic power management, for up to 35 hours on a single AA battery.
- Available in multiple battery configurations such as 1xAA, 1xAAA, 2xAA, 2xAAA or Lilon*.
- Integrated interface for:
 - USB data transfer
 - LCD controller
 - LEDs
 - FM radio input and control
 - Button and switch inputs
 - Headphones and microphone
- USB host drivers for Microsoft® Windows® 98SE, Windows ME, Windows 2000, Windows XP and MacOS9.
- Interface to host chip/processor.
- 5-band graphic EQ.

* 2xAA and 2xAAA configuration require 144-pin package.

OVERVIEW

D-Major™ audio decoder solutions provide high quality audio playback for portable devices such as MP3 flash players, language learners, jukeboxes, and MP3 CD players. These solutions offer market-leading benefits with BOM costs as much as 30% lower than competitor pricing. These benefits include 35 hours of life on a single AA battery and incredibly small form

factor designs as small as 14.5 cm². With flexible software support and upgrade options, the D-Major solution offers support for MP3 and WMA audio format algorithms as well as security in WMA DRM. D-Major is a true single-chip solution that maintains a flexible interface with other integrated circuits for incorporation into PDAs or cell phones. D-Major decoders offer a high level of integration and quality with low power consumption and cost, making portable audio devices with more features available to consumers at a lower price point.



**D-Major
Audio Decoder
Solutions**

SIGMATEL®

**35 hours of battery life
For MP3 player designs
as small as 14.5 cm²**

www.sigmatel.com

MPEG Layer 3 audio coding technology licensed from Fraunhofer IIS and THOMSON multimedia.

WMA audio coding technology includes technology owned by Microsoft Licensing, Inc. and cannot be distributed without a license from Microsoft Licensing, Inc.. Windows Media and WMA are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.



www.sigmatel.com

SigmaTel, a provider of integrated circuit (IC) design, is converting the real world into a digital experience with its innovative mixed-signal solutions for the digital audio and wireless infrared markets.

D-MAJOR™ AUDIO DECODER SOLUTIONS

SigmaTel's D-Major audio decoder solutions deliver high performance digital audio with an integrated USB interface and other key interface components. The combination of SigmaTel's high performance audio codec, DSP, USB interface, and general purpose I/O creates a powerful single-chip audio decoder for low-cost designs.

The USB interface can download digital music to on-board memory or memory cards and upload voice recordings. The hardware memory interface supports NAND flash, SmartMedia, MMC, Secure Digital, CD, IDE, SDRAM and CompactFlash. The audio decoder is capable of decoding audio files while also controlling the display, buttons, headphones, microphone, and FM radio. With the addition of an external FM tuner circuit, the STMP3400 and STMP3410 can support FM radio tuning and playback. D-Major audio decoders can be the host chip or interface to a host processor chip.

Almost all digital pins on SigmaTel audio decoders can be configured for general purpose I/O, which offers great flexibility in customizing audio-enabled devices.

STMP3300: VALUE-LINE DECODER

does not include LCD interface, voice record or FM tuner interface.

Provides a cost-effective solution for gift and promotional players that have an LED interface.



100-pin TQFP (14x14mm)

STMP3400: STANDARD DECODER

Provides the greatest integrated solution for MP3 players that want LCD, voice record, and FM-tuner functionality.



100-pin TQFP (14x14mm)

STMP3410: PREMIUM DECODER

RECOMMENDED FOR NEW DESIGNS

The STMP3410 offers additional decoding algorithm support for WMA and WMA DRM (Digital Rights Management). This solution is software upgradeable so the latest algorithms can be added to released products. The STMP3410 is available in fpBGA and LQFP packages.



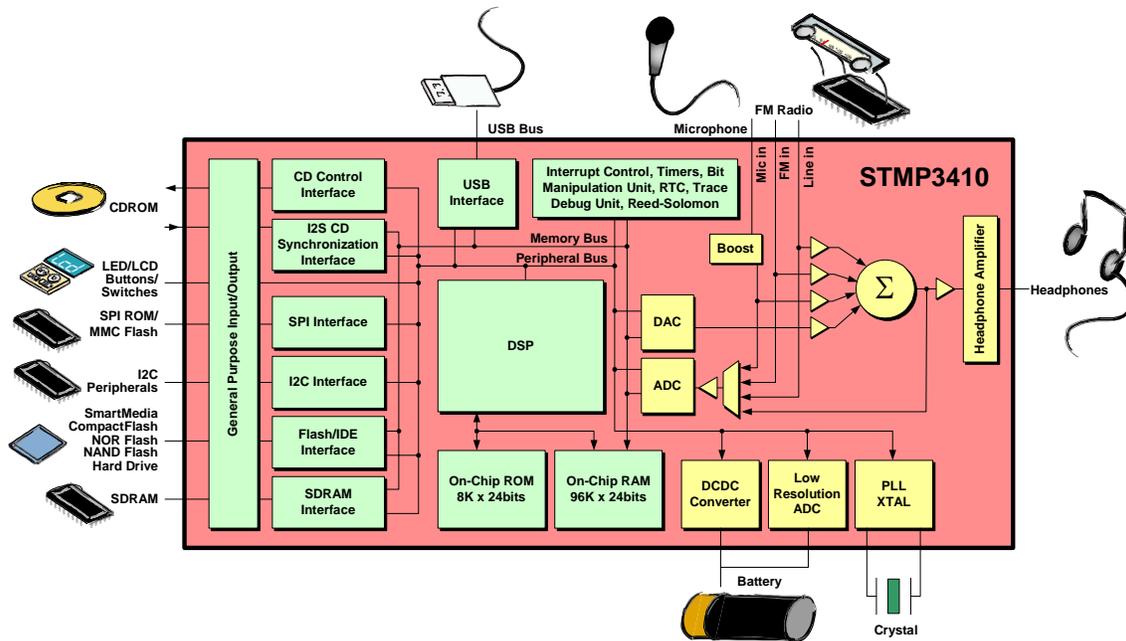
144-pin fpBGA (10x10mm)



100-pin TQFP (14x14mm)



144-pin TQFP (20x20mm)



SigmaTel, Inc. — 3815 S. Capital of TX Hwy, Ste.300 — Austin, TX 78704, USA

www.sigmatel.com — tel: (512) 381-3700 — fax: (512) 744-1700