

AVR32 UC3 Audio Player over USB

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AVR32 Support– avr32@atmel.com



Audio Decoder

■ MP3

- Using Libmad decoder
- Bitrate 320Kbit/s 44.1KHz Stereo
- ID3 tag support

■ WMA

- Using Microsoft WMA V10
- Bitrate 192KBit/s 44.1KHz Stereo
 - In plan support for 320Kbit/s

■ AAC

- Planned 2008

■ WAV

- Planned 2008



Audio Player

■ Store your music on a USB Key!

- USB Host Mass storage class
- File system FAT12/16/32



■ iPod Control (planned for 2008)

- Support Apple iPod authentication
- USB Stream (USB Audio class)
- iPod Control (USB HID class)





Audio Player

■ Audio Player API

- Simple command to control the decoder like select drive, play, pause...
- Full interface is described in a single API header file.



5.4 Audio Navigation

Table 5-2. Audio Navigation Commands

ID command	In	Out	Description
IA_AUDIO_CONTEXT_GET	.	Structure context	Give complet audio context (player state, play time, repeat, random, file played, explorer mode).
IA_AUDIO_CONTEXT_RESTORE	Structure context	OK or KO	Restore an audio context (eventually restart play).
IA_AUDIO_NAV_PLAYFILE	.	OK or KO	Play the current selected file or playlist. This commands does not change the current option repeat/random/explorer_mode.
IA_AUDIO_NAV_NEXT	.	OK or KO	Jump to next song file. The next song file is determinated by the current option repeat/random/explorer_mode.
IA_AUDIO_NAV_PREV	.	OK or KO	Jump to previous song file. The previous song file is determinated by the current option repeat/random/explorer_mode.





Deliveries

- **Software (Dec 2007)**
 - Project for GCC and IAR compilers
 - Source code (WMA is provided in binary form)

- **Documentation**
 - Application Note (Q1 2008)
 - Source code documentation

- **Configured to run on UC3A0512 / EVK1100**
 - Using UC3A Evaluation kit and external audio output
 - PWM channels
 - I2S output to external DAC
 - Internal DAC (silicon revision H and later - Q1 2008)

