

Features

- MPEG1 / 2 / 2.5 Audio Layer 1, 2, 3 decoder, bit-rate: 8~448Kbps; 8~48KHz, CBR/VBR
- Support WMA Decoder, bit-rate: 32~384Kbps; 8~48KHz
- Digital Voice Recording at ultra low 4.4 or 8Kbps with Actions Speech Algorithm
- 24 bits DSP Core and 8-bit MCU with on-chip Debug Support Unit (DSU)
- Support up to 3(pcs)* 1M / 8M / 16M / 32M / 64M / 128M / 256M / 512M / 1G / 2G / 4G bytes Nand type Flash
- Support 24.576MHz OSC with on-chip PLL for DSP and Built-in 32KHz RC oscillator
- 2-channel DMA , 1-channel CTC (Counter / Timer Controller) and interrupt controller for MCU
- Remote control and battery level detection
- Energy saving dynamic power management (PMU), supporting 1*AA(A), 2*AA(A), and Li-ion battery
- Built-in USB 2.0 (FS) Compliance PHY+SIE, almost 1M bytes downloading speed
- Build in Stereo 18-bit Sigma-Delta DAC and its modulator digital out
- Build in Key Scan Circuit(3*3) and GPIO(max 9,duplex)
- I2C/SPI interface
- Support external LCM (STN & Color STN)
- FM tuner input and control support
- Support Stereo 16-bit Sigma-Delta ADC for Microphone / FM Input, sample rate at 8 / 12 / 16 / 24 / 32 / 48KHz
- MCU run at 24.576MHz(typ.) and can be programmed up to 60MHz
- DSP Speed up to 72MIPS
- THD+N: 80dB (typ.)
- SNR: 88dB (typ.)
- Output: 2x11Mw @16ohm
- Standby Current: VCC:15uA, VDD: <110uA
- Low Power Consumption: 70mW (typ.) -- MP3 decoder solution; 80mW (typ.) -- WMA decoder solution
- Package: LQFP64(10*10 mm)

Solution Key Features

- MP3 + WMA(&WMV/ASF) + WAV + UFD + FM + DVR
- Full-function USB Flash Disk (ECC, Boot, Security)
- Hi-Fi Digital Audio Playback
- Long-Time Digital Voice Recorder
- FM with Visual scan and preset
- Visual GUI, Support Multi-language
- Long Battery Life
- Minimum Size

ATJ2085

UFD & MP3/WMA SoC with Mini-size solution

Function Description

The ATJ2085 is a single-chip highly-integrated digital music player solution which can be programmed for MP3, WMA and other digital audio standards. It can act as a USB mass storage device. The ATJ2085 has low power consumption which is ideal for a battery and an efficient flexible on-chip DC-DC converter that allows many different battery configurations, including

1xAA, 1xAAA, 2xAA, 2xAAA and Li-Ion. The built-in Sigma-Delta DAC includes a headphone driver to directly drive low impedance headphones. The Sigma-Delta ADC includes inputs for both Microphone and Analog Audio to support voice recording and FM radio integration features. Thus, the ATJ2085 provides a true 'ALL-IN-ONE' solution that is ideally suited for high quality digital audio players.

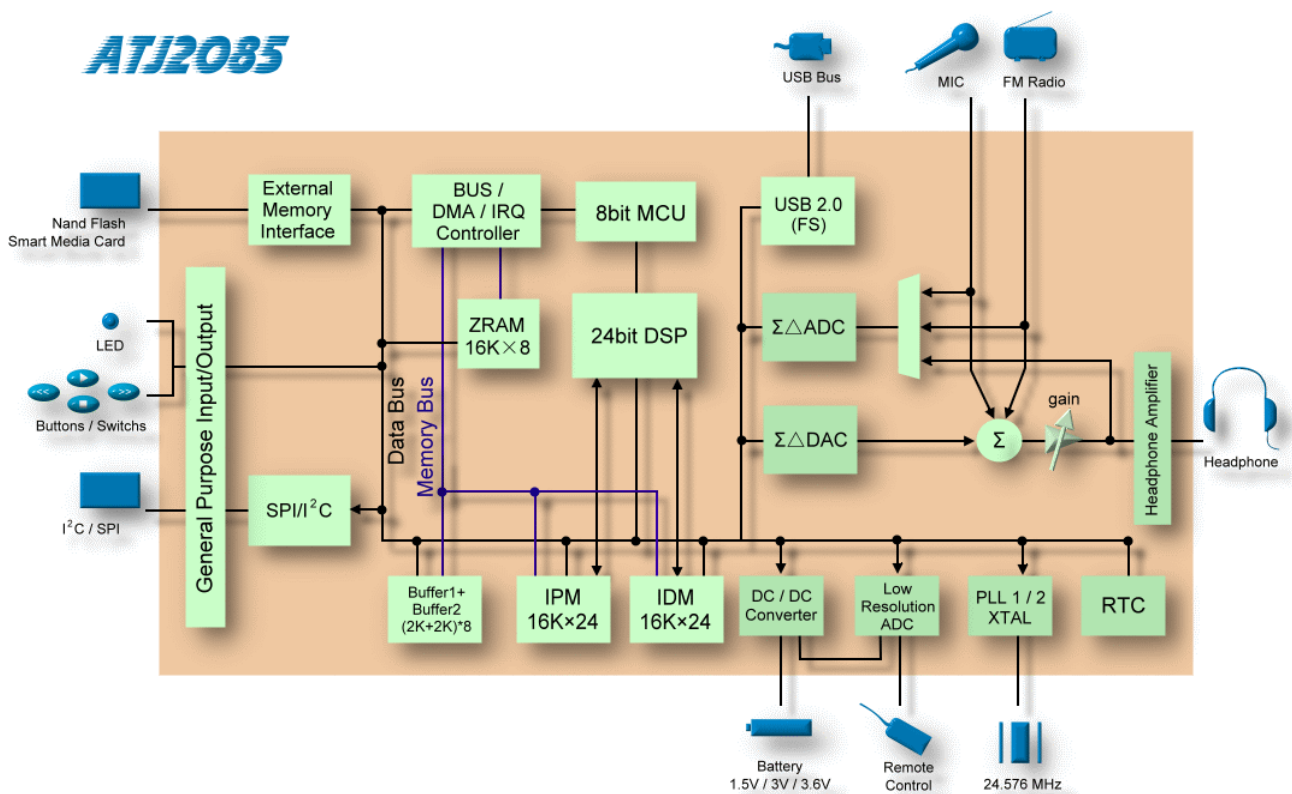


Figure1. ATJ2085 Block Diagram

Additional product and company information can be obtained by going to the Actions website at:

www.actions.com.cn

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