

(FS8101CSSL + FS2401CLQN) RD5401 System Key Feature

Description:

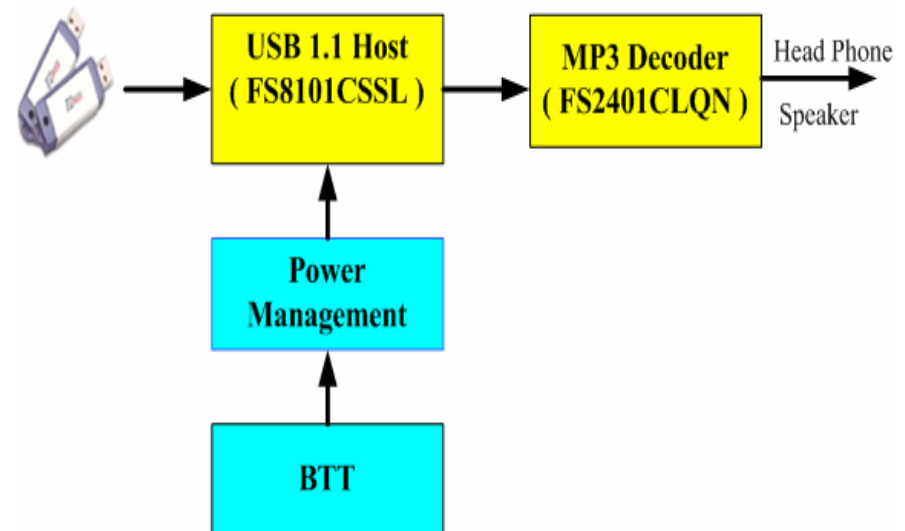
USB1.1 hostble with MP3 interface controller (RD5401) is designed for embedded USB mass storage class applications with UB1.1 host specification compliance. When the USB device was plugged into USB port, the **FS8101CSSL** will search and read the MP3 file from the USB device, then send the data to MP3 decoder. The user can listen MP3 music that was stored in the USB device.

Key Features:

- Audio data Input Interface: (External USB Device)
 - USB1.1/USB 2.0 Flash Disk, USB Card Reader, USB Portable Hard Disk Input
- FB8101 USB1.1 Hostble MCU
 - support USB device to host data transfer READ only
 - support Flash file system (FAT16/FAT32)
 - support file management (MP3/WAV/WMA/MIDI) firmware
- FB2401 MP3 decoder:
 - Decoder MPEG 1 & 2 audio layer 3, WAV and PCM
 - sample-rate 48Khz/ 44.1Khz/32Khz : Bit-rat 32kbit/s ~320kbit/s
 - Operation Voltage Range: 2.5V ~ 3.6V
- System power input : 5V
 - 3 AA battery
- Operation Function Key:
 - Play/Pause/Next/ Previous / Volume + / Volume –
 - / Repeat / Stop / Power On/Off
- Compatibility Test list (see attached)
- Headphone 30 load output
- LED signal indicator

Target applications:

- Embedded System
- USB Speaker,
- Card Audio FM MP3



Target System Specification

- Audio data Input Interface: (External USB Device)
 - USB1.1/USB 2.0 Flash Disk & USB Flash Disk MP3 Input
- FS8101CSSL USB1.1 Hostable MCU
 - support USB device to host data transfer READ only
 - support embedded MCU interface to MP3(FS2401CLQN) software
 - support USB host mass storage file management (MP3/WAV/WMA/MIDI) firmware
 - Support flash file system (FAT16/FAT32), 32MB above
 - Power source :3.3V (2.4 ~ 3.6V)
- FS2401CLQN MP3 decoder:
 - Decoder MPEG 1 & 2 audio layer 3, WAV and PCM
 - sample-rate 48Khz/ 44.1Khz/32Khz : Bit-rate 32kbit/s ~320 kb/s
 - Supports VBR (variable bit-rate) for MP3
 - support 18-bit DAC
 - Stereo earphone driver capable of driving 30-load
 - Operation Voltage Range: 2.5V ~ 3.6V
- System power input : 5V
 - 3 AA battery
- Regulator 5V / 3.3V
- Power consumption:
 - FS2410CLQN: 22.5mA (Analog 6.5mA + Digital 16mA)
 - FS8101CSSL:13mA
 - stand by current: FS2401CLQN:6mA + FS8101CSSL: 1.2mA
 - system power consumption:
- Operation Function Key:
 - Play/Pause: Alternate function ;when first press is “Play”, and press is “Pause” again
 - Next: If press, then the system search next MP3 song automatically. When system playing last MP3, this function can search from beginning
 - Previous: If press, then the system search previous MP3 song automatically. When system playing first MP3 ,this function can reverse search from bottom.
 - Volume + : If press, the system increase MP3 play volume.
 - Volume –: If press, the system decrease MP3 play volume.
 - Repeat : Switch function. One is repeat play, other is single loop play.
 - Stop: If press, the system stop MP3 playing and clear search record.
 - Power On / Off
- Headphone 30 load out put
- LED for power detect and data transferring indicator
- Compatibility Test List (see attached)

Application /System Block Diagram

