Features

♦ Internal storage free MP3/WMA player solution
♦ Access external USB storage device MP3/WMA files and playback
♦ On-Chip USB On-The-Go host and device controller module
♦ Compliant with OTG specification and USB specification version 2.0 for full-speed (12Mbps) operation
♦ Support USB Mass Storage Compliant Devices and compatibility test by USB-IF and NSTL
♦ High performance turbo mode 8 bit 8051 compatible MCU core
♦ Companion with CSA3002 MP3/WMA decoder to form a complete MP3/WMA player solution
♦ LQFP-100 pin small outline package

Introduction

Are you searching for digital audio solution which can seamlessly bridge computer data to consumer electronics products anytime everywhere? The CHESEN CSC1220A USB On-The-Go (OTG) with MP3/WMA player controller is a completely solution ready to fit such kinds of application. USB is a well known technology and mature interface standard for IT industry, its hot plug & play, ease to use and cost effective features make it well accept by peripheral and consumer devices, and billions of USB devices available in the market right now. In an up-coming digital era, the CSC1220A make used of the USB-OTG connectivity technology to easily connect USB storage devices to consumer electronic and perform a MP3/WMA player function. It can accept any kinds of USB storage devices compliant with Mass Storage Device Class (e.g. USB flash disk) as the multimedia resource.

About USB-OTG

USB OTG is a new supplement to the USB 2.0 specification. It challenges the capability of existing mobile devices and USB peripherals by giving them an added host capability for connection to other USB devices. These new features were needed to upgrade standard USB technology for mobile, peripheral devices and gateway bridge. These new features include the additional host capability, smaller connectors, and low power output, which eliminate the current limitation in the USB that requires a PC to act as host. *USB OTG has a well defined compliant testing and certificated procedure by the USB-IF which is not available by host only device.*

Specifications

Turbo 51 8-bits Controller Core:
♦ 8 bits 8051compatible MCU core
♦ Turbo mode with 2 clock per machine cycle
♦ 12MHz external ceramic resonator
♦ 24MHz internal CPU clock
♦ Two 16-bits timer
♦ Support power saving mode
♦ Built in power on reset with watchdog function

Memory:
♦ 64K byte internal ROM
♦ 256 byte internal RAM
♦ In-chip 12K byte external mode data RAM
♦ Internal or external program ROM support (ISP function for firmware update can support by external flash)

USB OTG Module:
♦ Fully compliant with the USB specification Rev. 2.0 (full-speed) and OTG supplement Rev. 1.0a
♦ Supports Suspend, Resume and Wakeup features
♦ Integrated USB transceiver
♦ Support USB1.1/2.0 Mass Storage Compliant Devices: included flash disk, card reader, portable hard disk etc.
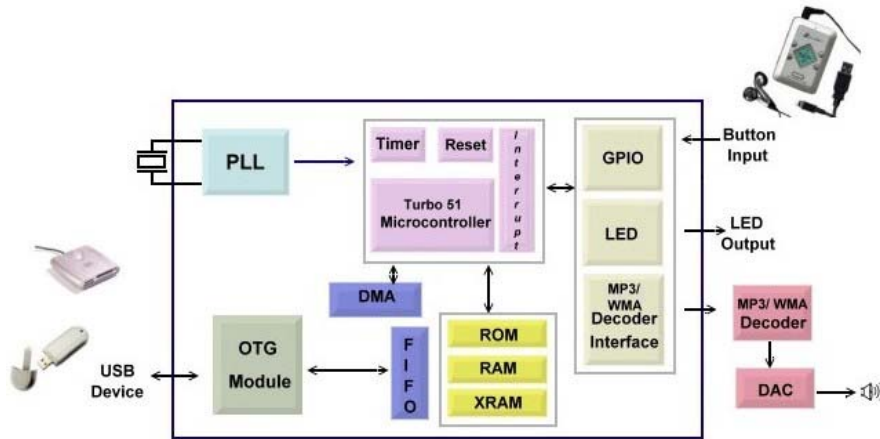
MP3/WMA Decoder Interface:
♦ Support serial/parallel bit stream type MP3/WMA decoder CSA3002 interface
♦ Search all MP3/WMA files format in the target devices
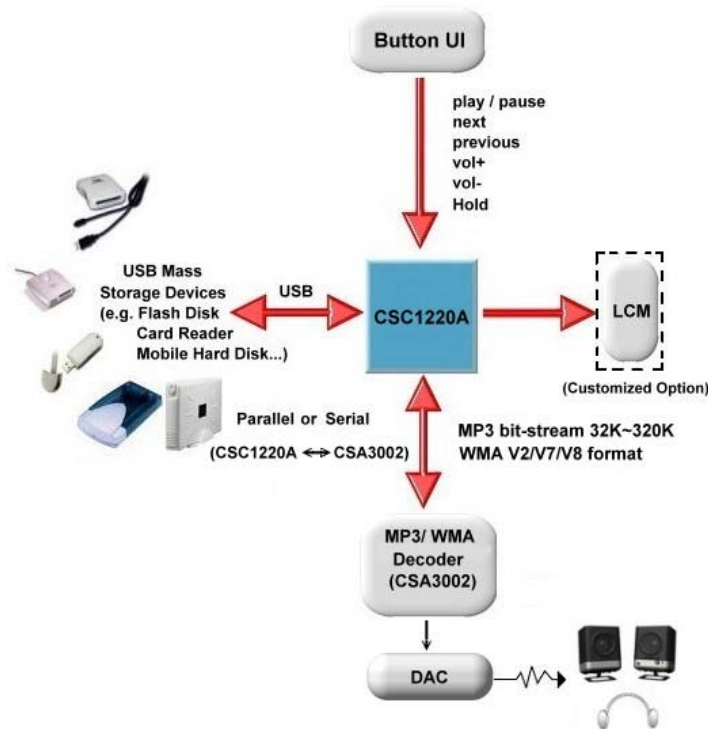♦ Support all MP3/WMA bit rate

Miscellaneous and User Interface:
♦ Support file system of FAT12, FAT16, FAT32 with multi-partition and multi LUN
♦ 2 Switch for Power; Hold
♦ 4 LEDs for
Power: System power apply
USB: Recognized USB device plug in
MP3/WMA: Device with MP3/WMA files format
Status: Play/Pause (Idle) Status
♦ 6 Function Buttons for Play/Pause; Forward; Rewind; Volume Up; Volume Down; Reset

Applications

Portable MP3/WMA Player   Multimedia Speaker   Sub-Woofer   Boombox   Car Audio All MP3/WMA Application

CSC1220A Functional Block Diagram

CSC1220A Typical Application