

MXD0251/MXD0261 Product Brief

CMMB Receiver Chip

(Version 1.0)



1. Overview

MXD0251/MXD0261 is an integrated single-chip CMMB receiver IC with RF tuner and demodulator. It is fully compliant with the China Mobile Multimedia Broadcasting standard (GY/T220.1-2006 and GY/T 220.2-2006) and supports all modes and options of the CMMB standard. The MXD0251/MXD0261 provides excellent indoor and outdoor mobile reception performance with extremely low power consumption. Highly integrated design with ultra light weight software package helps to reduce the time to market designing the MXD0251/MXD0261 into handheld and portable devices, such as mobile phones, PDAs, PMP, PC and automotive entertainment system. MXD0261 includes MBBMS UAM for TD application.

Figure 2-1 shows a typical mobile phone application with MXD0251/MXD0261 while Figure 2-2 demonstrates the use of MXD0251/MXD0261 in a USB dongle application.

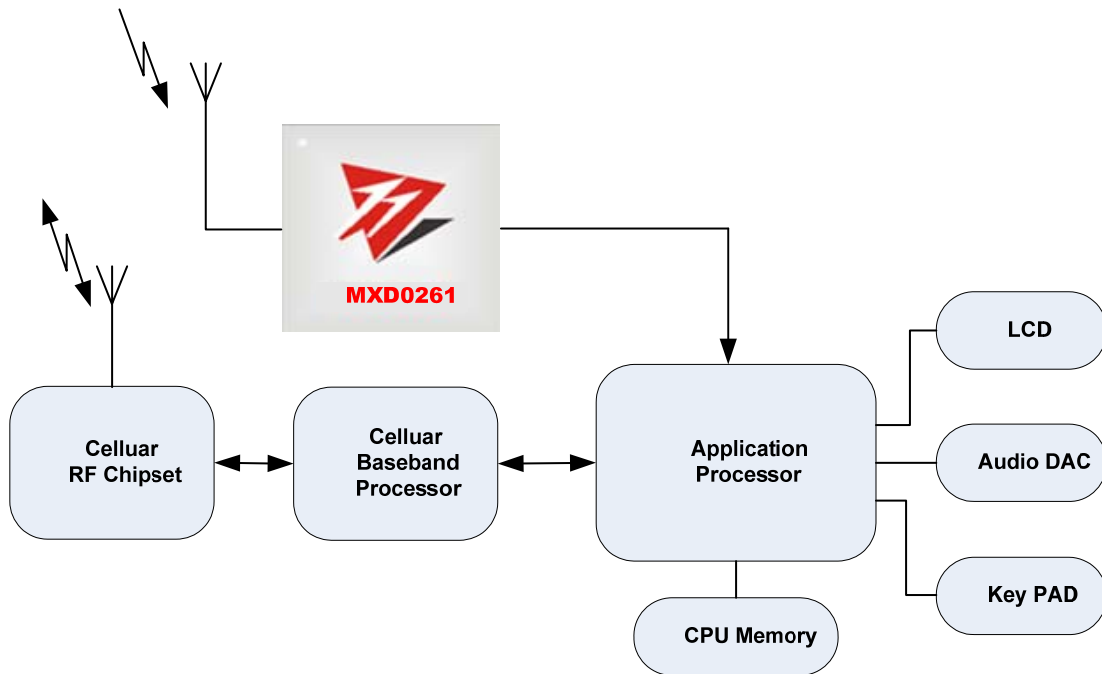


Figure 2-1 MXD0261 Mobile Phone Application

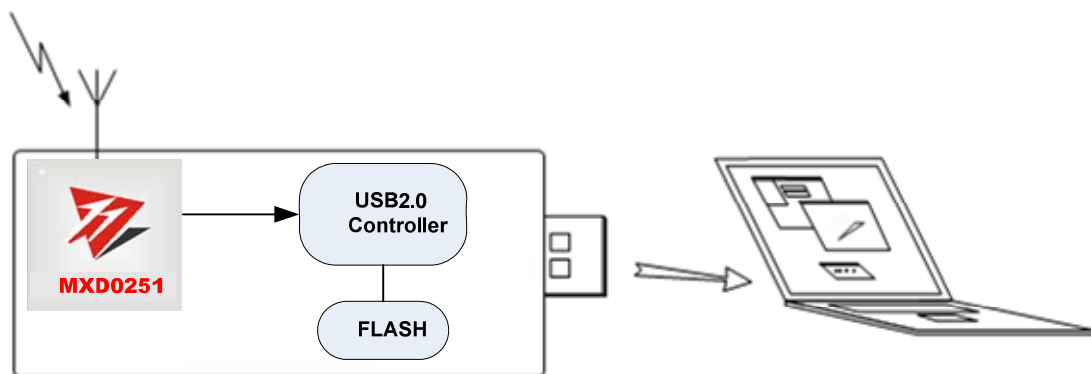


Figure 2-2 MXD0251 USB Dongle Application

2. Features

Demodulator

- Fully compliant with CMMB Standard GY/T 220.1-2006 and GY/T 220.2-2006
- Time slicing for dynamic power saving
- Support full time slots
- Support up to 6 services reception simultaneously for more applications
- Support BPSK, QPSK, 16QAM Modulation
- Support LDPC Error Correction of mode1/2,3/4 with byte interleave 1, 2, 3
- Support I2C, SPI, MP2TS host interface
- Ultra-small, 121-pin, 8mmx8mmx1.26mm BGA package
- <20mW for 512k video stream reception

RF Tuner:

- UHF coverage 474MHz~798MHz
- Direct-conversion architecture greatly reduce external components
- 100mW power consumption for full time slot mode, 12.5mW for 512k video stream reception
- Tunable baseband filter for multi-standards (5M, 6M, 7M, 8M)
- I and Q outputs eliminate all IF-SAW filters
- Less than 3.5dB noise figure in full UHF band
- Integrated high PSRR LDOs
- Build-in 10 bits DAC provide application flexibility
- Fully integrated AGC optimized for mobile reception
- On-chip automatic LPF bandwidth calibration to achieve analog 40dBc adjacent channel rejection
- Excellent receiver dynamic range helps to overcome stringent ACS conditions

MBBMS UAM:

- Included in MXD0261 only
- ISO7816-3 interface