CIRCUIT DESCRIPTION

1. Scope

The equipment under test (EUT) is a single-mode mobile with GSM mode(GSM850/EGSM900/DCS/PCS1900).This document is shown and provided the more detail information about the platform used in. The basic description for the Baseband and RF section are also included.

2. Baseband

MT6261D is a monolithic chip integrating leading edge power management unit, analog baseband and radio circuitry based on the low-power CMOS process.

ARM7EJ-S 260M

MT6261D is a feature-rich and extremely powerful single-chip solution for high-end GSM/GPRS capability. Based on the 32-bit ARM7EJ-STM RISC processor, MT6261D's superb processing power, along with high bandwidth architecture and dedicated hardware support, provides a platform for high-performance GPRS Class 12 MODEM application and leading-edge multimedia applications.

MT6261D is capable of running the ARM7EJ-STM RISC processor, which provides the best trade-off between system performance and power consumption.

3:MCU subsystem

ARM7EJ-STM 32-bit RISC processor

Java hardware acceleration for fast

Java-based games and applets

High-performance multi-layer AHB bus

Dedicated DMA bus with 16 DMA channels

On-chip boot ROM for factory flash

programming

Watchdog timer for system crash recovery

3 sets of general-purpose timers

Circuit switch data coprocessor

Division coprocessor

User interfaces

5-row x 5-column keypad controller with

hardware scanner

Supports multiple key presses for gaming

Dual SIM/USIM controller with hardware T =

0/T = 1 protocol control

Real-time clock (RTC) operating with a

low-quiescent-current power supply

General-purpose I/Os (GPIOs) available for

auxiliary applications

2 sets of Pulse Width Modulation (PWM)

output

24 external interrupt lines

1 external channel auxiliary 10-bit A/D

converter

Security
Supports security key and chip random ID

Connectivity
3 UARTs with hardware flow control and
supports baud rate up to 921,600 bps
FS/LS USB 1.1 device controller
Multimedia card, secure digital Memory Card,
host controller with flexible I/O voltage power
Supports 4-bit SDIO interface for SDIO
peripherals as well as WIFI connectivity
DAI/PCM and I2S interface for audio
applications
I2C master interface for peripheral
management including image sensors
SPI master/slave interface for peripheral
management.

Power management
Li-ion battery charger
13 LDOs for the power supply of memory
card, camera, Bluetooth, RF, SIM card and
other diversified usage
1 open-drain output switches to
supply/control the LED
LDO type vibrator
One NMOS switch to control keypad LED
Thermal overload protection
Under-voltage lock-out protection
Over-voltage protection
Different levels of power-down modes with
sophisticated software control enables
excellent power saving performance.
Audio CODEC
Supports AAC codec decoding
Wavetable synthesis with up to 64 tones
Advanced wavetable synthesizer capable of
generating simulated stereo
Wavetable including GM full set of 128
instruments and 47 sets of percussions
PCM playback and record
Digital audio playback

Audio interface and audio front-end
Supports I2S interface
High-resolution D/A converters for stereo
audio playback

3 Bluetooth Features
Radio features
Fully compliant with Bluetooth specification 3.0 + EDR
Low out-of-band spurious emissions support simultaneous operation with GPS and GSM/GPRS

worldwide radio systems
Low-IF architecture with high degree of linearity and high order channel filter
Integrated T/R switch and Balun
Fully integrated PA provides 7.5dBm output power
  -95dBm sensitivity with excellent interference rejection performance
Hardware AGCdynamically adjusts receiver performance in changing environments
Baseband features
  Up to 4 simultaneous active ACL links
  Up to 1 simultaneous SCO or eSCO link with CVSD coding
Supports eSCO
Scatternet support: Up to 4 piconets simultaneously with background inquiry/page scan

Supports sniff mode
AFH and PTA collaborative support for WLAN/BT coexistence
Idle mode and sleep mode enables ultra-low power consumption
  Supports PCM interface and built-in programmable transcoders for linear voice with re-

transmission
Built-in hardware modem engine for access code correlation, header error correction, forward

error correction, CRC, whitening and encryption
Channel quality driven data rate adaptation
Channel assessment for AFH

Platform features
Embedded processor for Bluetooth protocol stac with built-in memory system
Fully verifiedROM based system with code patch for feature enhancement

4 FM Features

65-108MHz worldwide FM bands with 50KHz tuning step

Supports RDS/RBDS radio data system

Digital stereo demodulator

Adaptive FM demodulator for both high- and low-quality scenarios

Low sensitivity level with superior interference rejection

Programmable de-emphasis (bypass/50 uS/75 uS)

Stereophonic multiplex signal (MPX) signal detection and demodulation

Superior stereo noise reduction and soft mute volume control

Audio dynamic range control

Mono/stereo blending

Audio sensitivity3dBμVemf (SINAD=26dB)

Audio SINAD≥ 60dB

Supports Anti-jamming algorithm

Supports short antenna