CM-G100 HARDWARE SPEC.

Version **:** **1.0**

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目录

CM-G100 HARDWARE SPEC.

1. OUTLINE

This is a GSM handset. It connects with host through 18PIN interface.

2. **REVISION HISTORY**

1. Nov. 13 2008   New Issue

英华达(南京)科技有限公司
Inventec Appliances (Jiangning) Corporation

3. CM-G100 HARDWARE DESIGN REQUIREMENT

3.1 Power

CPU core operation voltage is 1.8V，digital I/O I/F is 2.8V .Other parts is 2.8V.

3.2 Memory
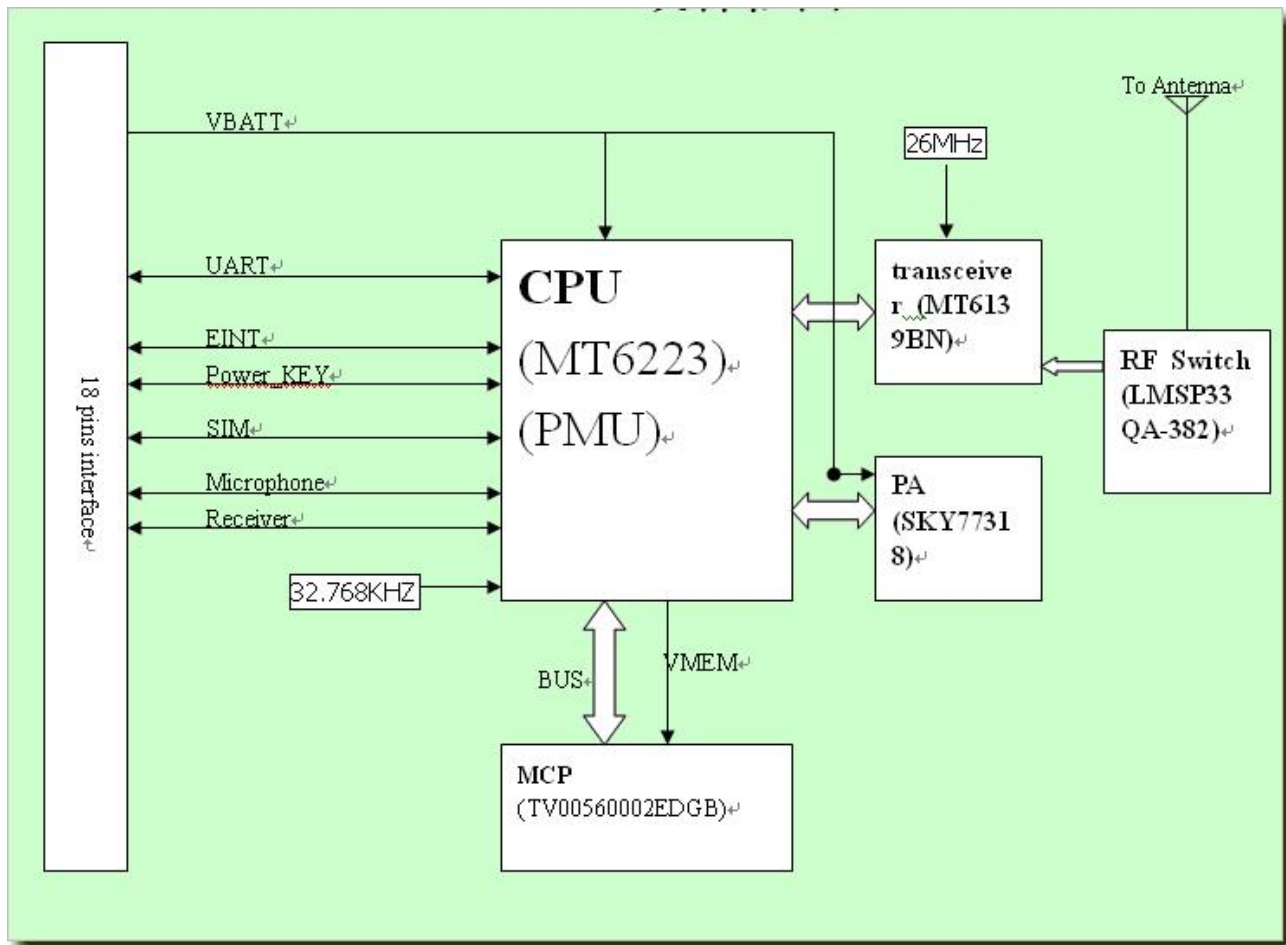
TV00560002EDGB

64Mbits Nor Flash+32Mbits Pseudo SRAM

3.4 CPU

32 bit high speed CPU MT6223

3.5 GSM

MTK Wireless Module

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4. CM-G100 HARDWARE BLOCK DIAGRAM

NOTE：

The 32.768KHz clock is used for RTC module, which maintains time and date.

The 26MHz is for system clock, generated by MT6139.

5. CM-G100 KEY PARTS DESCRIPTION

5.1 CPU MT6223

5.1.1 MT6223 is a high speed 32bit processor

5.1.2 Characteristic：

5.1.2.1   Integrated voice-band, audio-band and base-band analog front ends

5.1.2.2   TFBGA 9mm*9mm，224ball

5.1.2.3   ARM7EJ-S 32bit RISC processor

5.1.2.4   Java hardware acceleration for fast Java-based games and applets

5.1.2.5   Operating frequency:26/52 MHz

5.1.2.6   7 DMA channel

5.1.2.7   320k Bytes on-chip SRAM

5.1.2.8   Watchdog timer for system crash recovery

5.1.2.9   3 sets of General Purpose Timer

5.1.2.10   Supports up to 4 external devices

5.1.2.11   Supports 8-bit or 16-bit memory components with maximum size of up to 32M Bytes each

5.1.2.12   Industry standard 9-bit Parallel LCD Interface

5.1.2.13   GPRS Class12

5.1.2.14   5-row × 7-column keypad controller with hardware scanner

5.1.2.15   SIM interface

5.1.2.16   Real Time Clock (RTC) operating with a separate power supply

5.1.2.17   JTAG port for debugging embedded MCU

5.2 MEMORY TV00560002EDGB

Characteristic：

5.2.1 NorFLASH 64Mbit

5.2.2 Pseudo SRAM 32Mbit

5.2.3 Power supply voltage of 2.7 to 3.3 V

5.2.4 Power supply voltage of 2.7 to 3.3 V

5.2.5 Power dissipation

－Read operating : 55 mA maximum

－Program / Erase operating: 15 mA maximum

－Standby : 10 μA maximum

5.2.6 Block Protection/Boot Block Protection

5.2.7 81-pin BGA package

5.3 GSM

Characteristic：

4.3.1   12mm×12mm 264－ball   0.65mm pitch TFBGA package

4.3.2   3-wire serial interface

4.3.3   m BiCMOS process

4.3.4   40-pin Quad Flat No-lead (QFN) package 6x6 mm

6. CM-G100 CIRCUIT DESCRIPTION

CM-G100 include 4parts below

    1. Power and CPU

    2. interface

    3. GSM

    4. Memory

6.1 Power and CPU

    6.1.1　MT6223 integrates all regulators that a voice-centric phone needs.

    6.1.2　Power supplied by host

    6.1.3　Reset

        Use reset pin of MT6223

    6.1.4　Clocks

        Main clock: 26MHz

        RTC module: 32.768KHz

   6.1.5 I/O

        It contains address bus, data bus and signal control ports.

6.2 Interface

    6.3.1 Communicate with processor through W-sim interface

        W-SIM include power , audio, SIM,processor ports

6.3 GSM module

    Wireless module communicates with processor through COM port

6.4 Memory

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