MX6Q Android Embedded System Platform

Yuanying Tech.

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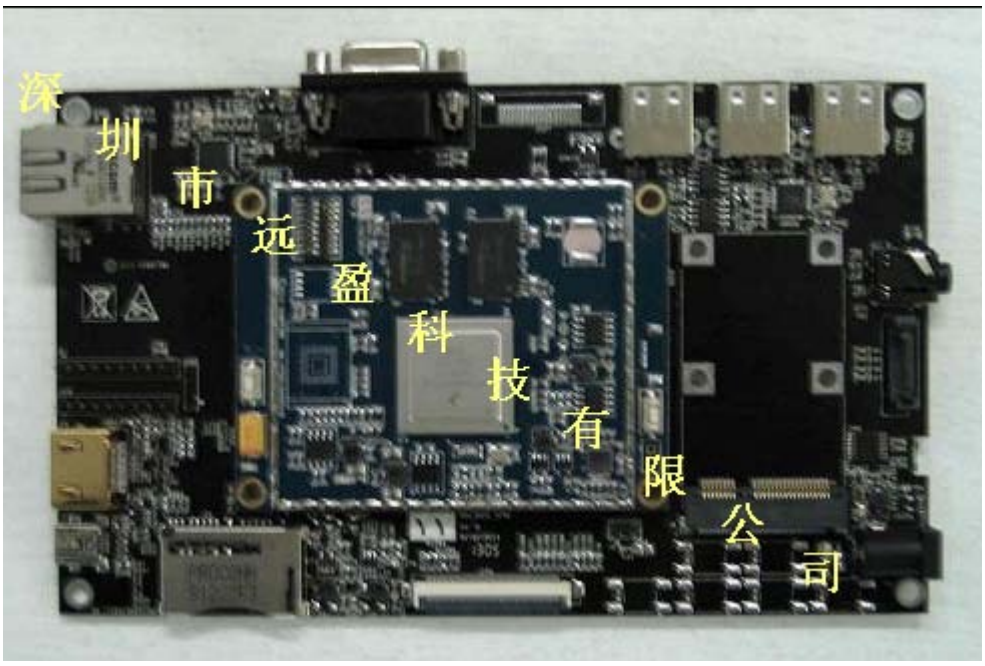
Please visit the following website for more information：

--- i.MX6QL: based on i.MX6Q with Linux OS 3.0.35 development platform:
http://www.yuan-ying.com/htmlE/i.mx6le.html
--- i.MX6QA：based on i.MX6Q with Android 4.0.4 OS development platform：
http://www.yuan-ying.com/htmlE/i.mx6ae.html
--- i.MX6QU：based on i.MX6Q with Ubuntu 1110 OS development platform：
http://www.yuan-ying.com/htmlE/i.mx6ue.html

◆ System Introduction:



As one of technical leader company, in past few years Yuanying Tech always focus on embedded system solution offering, from low end to high end. Our platform including MX25, MX28, MX51 and MX53. From Jul， 2012, Yuanying Tech. have started MX6Q Ubuntu system design work by customer demand. Subsequently, launched MX6Q Android embedded system platform --- YY- i.MX6QA (Android4.0.4）, now this platform offering in public.

i.MX 6Dual/6Quad application processors are Freescale Semiconductor's latest additions to a growing family of multimedia-focused products offering high performance processing optimized for lowest power consumption. feature Freescale's advanced implementation of the ARM Cortex™-A9 core, which can be interfaced with DDR3-1066, LV-DDR3-1066 and LPDDR2-1066(single and dual channel) DRAM memory devices. Major application for:

- Automotive navigation and entertainment
- High-end Mobile Internet Devices and high-end PDAs
- Industrial information terminal.
- High-end portable media players with HD video capability
- Portable navigation devices or gaming Consoles
- High end graphic collection and process

YY-MX6QA is an Android System Platform based on Android4.0.4 kernel, consisting of core module and base board, ext3/ext4 file system, designed by Yuan-ying Technology. i.MX6QA owns plentiful peripheral interface, such as USB HOST/OTG, gigabit Ethernet port, MIPI, dual LVDS, Camera CSI input, CAN, SATA and powerful 2D/3D graphic processing unit,etc. The multi-display feature is the most suitable platform for education application.

Core module can be selling separately, customer just need focus on the application software design and base board re-layout, and largely shorten the time to market cycle.

◆ Hardware Brief

CPU

- MCIMX6Q5EYM
- ARM Cortex-A9 core，quad application processor, 800M－1GHz
- 32KB Instruction and 32KB Data L-1 Cache, 1MByte L-2 Cache
- One VPU and two IPUv3H
- GPU VG,GPU2Dv2-2D and GPU3Dv4-3D/2D graphic units

Memory

- RAM：1GB DDR3 256MB*4
- Nor Flash：1MB SPI（For Boot）(space reserved)
- One NAND Flash-4GB on board (SD card alternatively)

Interface

- USB ports： HS USB OTG（MX6Q integrate Phy），HS USB Host
- SD： dual SD card socket，system reside in SD card or One NAND Flash (eMMC4.3/4.4 supported)
- FEC：10/100/1000M Ethernet interface with IEEEE 1588 QUICC engine
- UART&CAN：5 x UART ports Max.and dual CAN interface
- SATA interface：SATA-II,3.0Gbps
- PCIe V2.0 interface ：Gen2.0 dual mode

A-V interface

- LCD： 7” TFT LCD via LVDS interface
- HDMI port： support 1080P output
- LVDS: dual LVDS interface support up to 1920 x 1200 @ 60 fps (In default, LCD (1024x600)+7 R-TP equipped)
- Audio In： MIC
- Audio Out： Headphones

Clock and power supply

- RTC： Outside RTC
- Power Supply： 5V/2A DC input

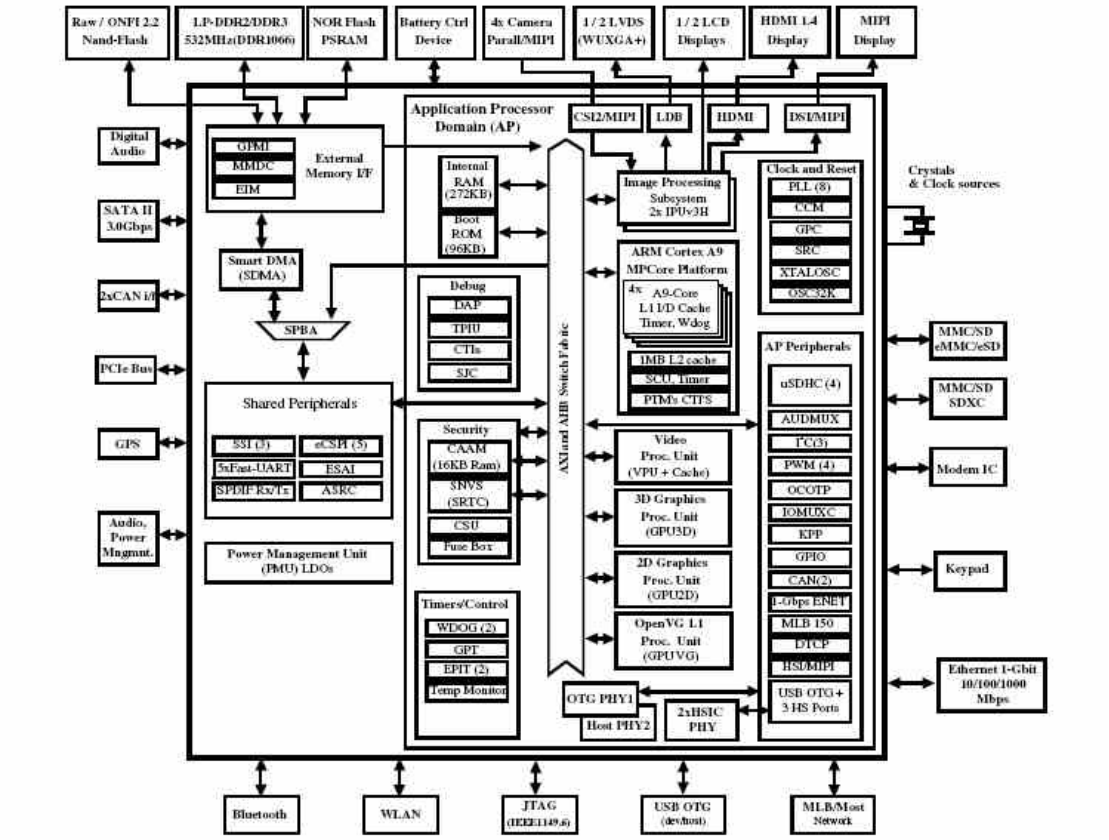
Wireless Interface

- WiFi： WiFi 802.11g/b/n(optional)
- 3G module supported (optional)

Board Size

- System bottom board： 16.5cm x 10cm
- Core module： 8cm x 6cm

◆ System Block Diagram



Note：

--- WiFi is an option selection for customer selection

--- Touch Panel: the resistance touch panel in default

--- SD card or One NAND Flash alternatively

◆ Board External Connection: