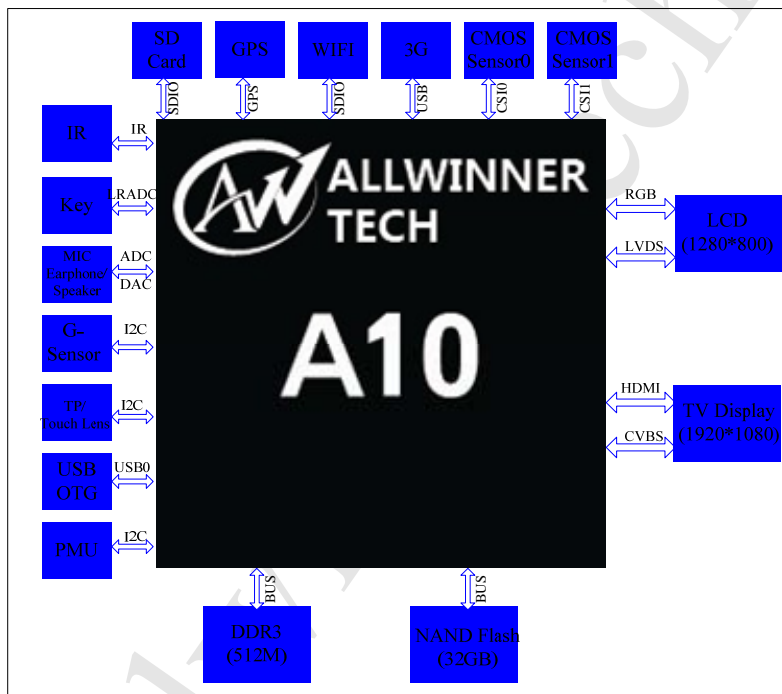# A10

Many Core SoC for Cool HD Pad

Overview

With advanced many core A10, Pad can become really cool and will bring end-users *better experiences of surfing, watching, gaming and reading*. Besides its remarkable *Super HD 2160P* video decoding capability, A10 can stream smoothly HD videos over Internet, including

FLASH10.3/HTML5/3rd APK with *ultra-low power consumption*. What's more important, A10 has *integrated HDMI, Audio Codec, LVDS,RTC and R-TP* which makes pad with A10 can be launched in less time, with less effort and at a lower total system cost.

Features

VPU

• HD Video Decoding (*Super HD 2160P*)

   Support all popular video formats, including **VP8 AVS**, H. 264, VC-1, MPEG-1/2/4, ...

• HD Video Encoding (H.264 High Profile)

   Support encoding in H.264 format

   1080p @ 60 fps

   720p @ 100 fps

DPU

• *MULTI-CHANNEL of HD displays*

   Built-in HDMI v1.3/v1.4

   LCD interfaces: CPU, RGB, LVDS up to Full HD

CPU/GPU

• **ARM Cortex-A8 CPU**

• 32KB I-Cache/32KB D-Cache

• *256KB L2 Cache*

• *MALI 400 MP GPU*

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Memory

- **DDR2,DDR3** SDRAM, 32-bit
  Frequency up to **DDR800**
  Memory Capacity up to **16G bits**
- SLC/MLC/**TLC/DDR** NAND
  8 flash chips, ECC 64bits
  Memory Capacity up to **64GB**
  Support NAND of 5xnm, 4xnm, 3xnm, 2xnm…
  Support NAND of Samsung, Toshiba, Hynix…

Peripherals

- **USB2.0 OTG Port / USB2.0 EHCI HOST**
- CSI0/1
- SD Card3.0
- 10/100 Ethernet controller
- SPI, TWI and UART

Boot Devices

- NAND FLASH
- SPI NOR FLASH
- SD Card
- USB
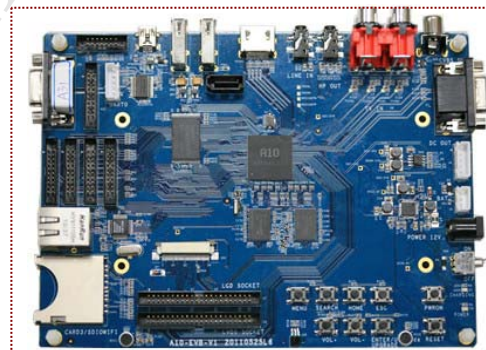
Powerful Acceleration

- Graphic(**2D/3D,Mali400 MP**)
- VPU(**Super HD**)
- APU
- E-reader
  Support text in EPUB, PDF, FB2, PDB, CHM, HTML, and TXT
  Support coding format in ANSI/ASCII, UTF-8, UTF16-BE, UTF16-LE, GB2312, EUC-KR, SHIFT-JIS, Windows-1250/1251
  Support Chinese, English, French, Italian, Spanish, Dutch, Russian, Japanese, and Korea

Applications

- Cool HD Pad(5-inch, 7-inch, 8.9-inch, 10.1-inch)

Benefits

- Very high performance processing and multimedia capabilities

- Hardware acceleration enables very low power consumption for HD video and graphics

- High level of integration makes you can launch product in less time, with less effort and at a lower total system cost

- Optimized Standard Operation Procedure(SOP) creates high First Pass Yield(FPY) in mass production

- Further development Kits, including **Android2.3.4** SDK.

※ Company Profile

Allwinner Technology, established in the year of 2007, is a leading fabless semiconductor company in China, and develops system-on-chip (SoC) for Smart Connected Multimedia devices. We offer both highly integrated SoC solutions as well as stand-alone chips. In the past few years, Allwinner Technology has won great reputation in HD PMP and HD Media box, and currently, is dedicated to the research of connected videos, such as **CLOUD Videos and CLOUD Device System Solutions.**

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