A1X

Connected Smart HD Many Core SoC with High Profile

Overview

With the best-in-class many core A1X, Pad and HDTV devices can bring end-users better experiences of surfing, watching, gaming and reading. It supports 1080P 3D video playback as well as 3D gaming. It offers both local 2160P video playback through SATA/USB2.0 interface and 1080P internet video playback through Ethernet /WIFI. What’s more important, A1X has integrated Video Codec, Audio Codec, HDMI, SATA, RTC which allows products with A1X to be launched in less time, with less effort and at a lower total system cost.

Features

VPU

• HD Video Decoding (Super HD 2160P/3D Film)
  Support all popular video formats, including VP8 AVS, H. 264 MVC, 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
  YPbPr, CVBS, VGA
  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

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…

Learn More: For more information about All Winner Technology products and documentation, please contact us via service@allwinnertech.com.
Rich Connectivity

- **THREE USB2.0 Port (OTG/HOST)**
- CSI(2), TS(2)
- SD Card3.0(4)
- 10/100 Ethernet controller
- CAN Bus, **Built-in SATA2.0 Interface**
- I2S, SPDIF and AC97 audio interfaces
- PS2 (2), SPI (4), TWI (3) and UART (8)

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, TXT
- Support Chinese, English, French, Italian, Spanish, Dutch, Russian, Japanese, and Korea

Applications

- **Cool Pad**
- **Smart Phone**
- **Smart TV**
- **In-Car Infotainment Products**
- **IP-Cam, DVS Smart Box**
- **Home theater products**
- **Advertising TV, Industrial Computer**

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 OS BSP( Android2.3.4, Linux2.6, WinCE6.0)

※ Company Profile

All Winner Technology, established in the year of 2007, is a leading fabless semiconductor company in China. All Winner Technology develops system-on-chip(SoC) for smart connected multimedia devices. We off both highly integrated SoC solution as well as stand-alone chips. In the past few years, All Winner Technology has win great reputation in HD PMP and HD Media box, and currently, is dedicated in the research of connected video, such as **CLOUD Video and CLOUD Device System Solution.**

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