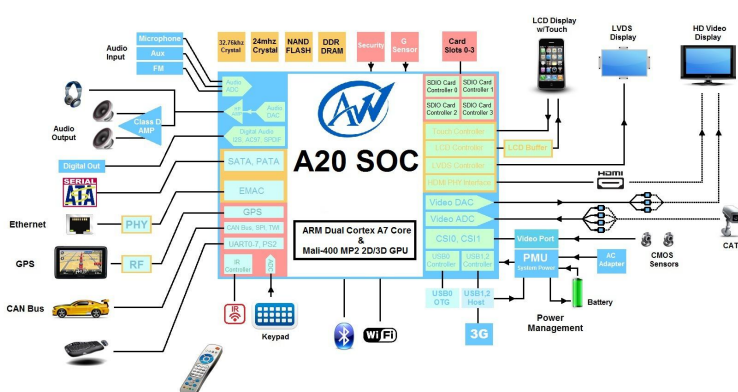


AW-SOM A20 Dual Core



A20 Dual Core Module (Pin for Pin Compatible with A10 Single Core Module)

Key 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

Rich Connectivity

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

Boot Devices

- On board NAND FLASH
- SPI NOR FLASH
- SD Card
- USB

Powerful Acceleration

- Graphic(**2D/3D, Mali400 MP2**)
 - VPU(**Super HD**)
 - APU
 - E-reader
- Support text in EPUB, PDF, FB2, PDB, CHM, HTML, 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

CPU/GPU

- **ARM Dual Cortex-A7 at 1 Ghz without cooling**
- 32KB I-Cache/32KB D-Cache
- **256KB L2 Cache**
- **MALI 400 MP2 GPU**

Memory

- **DDR3** SDRAM, 32-bit
16G bits Memory Capacity
- SLC/MLC/**TLC/DDR** NAND
4 flash chips, ECC 64bits
Memory Capacity up to **64GB/chip**

Security

- **Trustzone Technology and DRM**
- Supports DES, 3DES AES encryption/decryption
- Support SHA-1, MD5 message digest
- hardware 64-bit random generator
- 128-bit EFUSE chip ID

PMU

- **Flexible built-in power options**
- Intelligent Power Select allocates power safely and transparently among USB, external AC adapter, Li-battery and application loads
- adaptive and USB-compatible PWM charger

Dimensions

- 52.1mm x 67.7mm x 4.8mm
- 200 Pin SODIMM Footprint

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
- Open Source (**Android, Linux, WinCE6.0**)