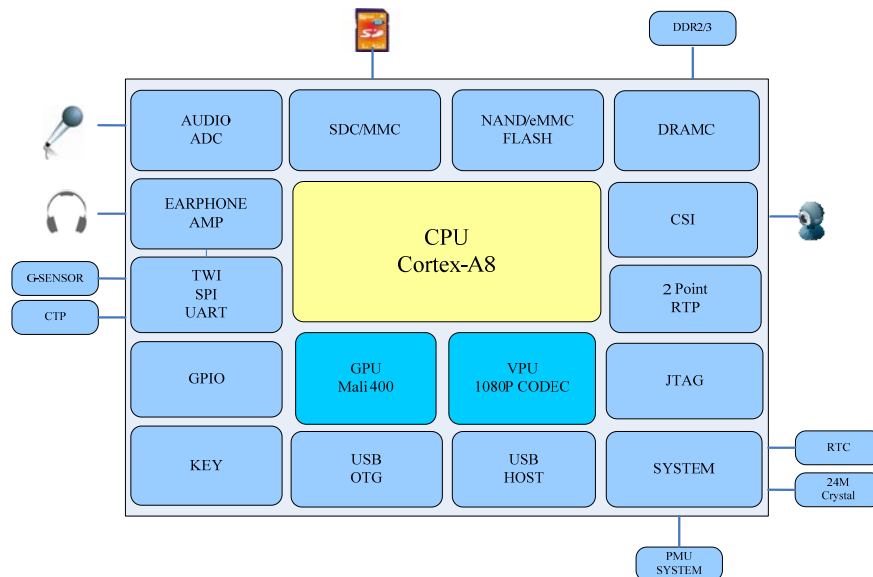# A13

ManyCore Lite SoC for Android 4.0 PAD

Overview

Allwinner Tech has expanded its processor lineup to include a new *ARM Cortex-A8* chip A13 which is even more competitive for Android tablets with higher performance (ManyCore Lite), *lower power consumption*, and lower total system cost. As the brains of *Android 4.0.3*, A13 makes multitasking smoother, apps loading more quickly, and anything you touch responds instantly. What's more important, A13 is available in *eLQFP176 package with Audio Codec, and 2 Points R-TP integrated*.

Feature

CPU/GPU

- *ARM Cortex-A8 Core*
- *32KB D-Cache/ 32KB I-Cache*
- *256KB L2 Cache*
- *Mali-400 3-D Engine*

VPU

HD Video Decoding
- *1920*1080@30fps*
- Support H.264、H.263、VC1、Mpeg1/2/4、Divx 3/4/5/6、Xvid、VP6/8、AVS etc

HD Video Encoding
- Support encoding in H.264 format
- *up to 1920*1080@30fps*

DPU

- LCD Interfaces: CPU, RGB

Memory

DDR2/DDR3: Up to 533MHz
- 16 bits Data Bus
- Memory capacity up to 512MB

MLC/TLC/SLC/EF-NAND
- 2 flash chips, ECC 64-bit
- Support NAND of 5xnm, 4xnm, 3xnm, 2xnm…
- Support NADN of Samsung, Toshiba, Hynix…

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Peripherals

- USB2.0 OTG, USB2.0 HOST（OHCI/EHCI）
- SD Card V.3.0, eMMC V.4.2
- SPI, TWI and UART
- *integrated Audio Codec*
- CSI

R-TP Controller

- *4-wire resistive TP interface*
- *2 points and gesture detection*

Boot Devices

- NAND Flash
- SPI Nor Flash

- SD Card
- USB

Powerful Acceleration

- Graphic (3D, Mali400 MP)
- VPU（1080P）
- APU
- E-Reader

Ultra-low System Power Consumption

- 15~20% lower than competitors
- **Smart Backlight**：auto adjust backlight acc. to the image display

Package

- eLQFP176

Application

- Android 4.0.3 Pad

- Smart E-Reader

Benefits

- Optimum multimedia and processing abilities
- Lower power consumption of HD videos and graphics due to hardware acceleration
- Much faster, easier and cost efficient product launch due to the high integration
- Further development kits, including OS BSP(Android 4.0.3 UP)

Contact

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※ **Company Profile**

Allwinner Technology, established in 2007, is a leading fabless semiconductor company in China, supplying customers with cost-efficient SoC products as well as market-oriented total solutions. 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 Video and CLOUD Device System Solution.*