






Professional E-book Processor

Overview

The Allwinner B300 quad-core processor is the SoC solution for E-book. It integrates DRAM controller which supports DDR3, DDR4, LPDDR3, LPDDR4, so that kinds of DRAM types can be choosed flexibly. It also integrates NAND Flash Controller with LDPC error correction function, which supports the application of the mainstream 2D/3D SLC/MLC/TLC Nand Flash on the market. And B300 has up to 2332×1650 screen resolution with built-in Electronic Paper Display Acceleration Engine, which independently designed by Allwinner. So B300 offers a streamlined solution for customers seeking ARM Cortex™-A7 performance levels with flexible design features, especially in E-book field.

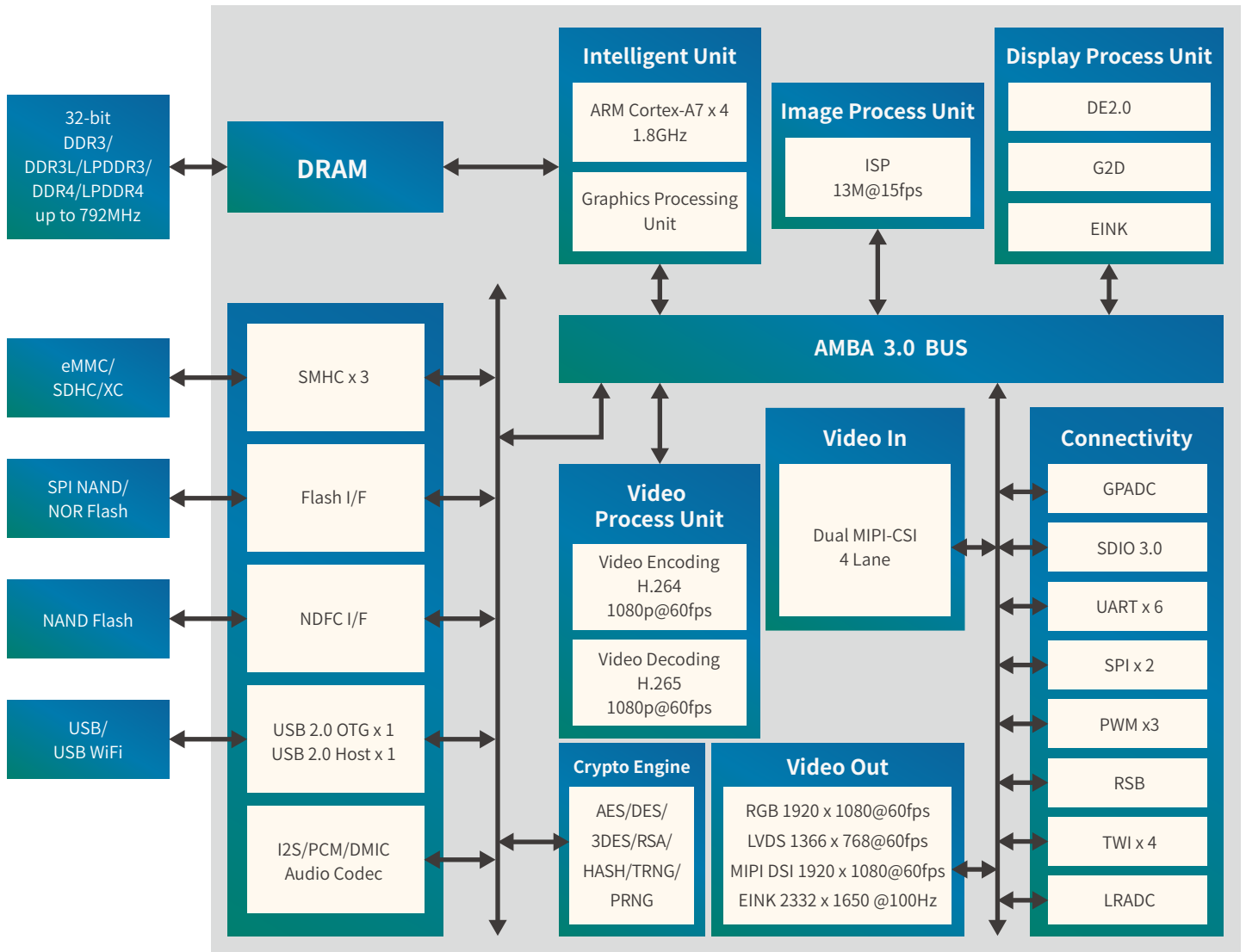
Highlights

- **High Performance**
The B300 features 1.8GHz ARM Cortex A7*4, and provides for faster page turns and a better reading experience.
- **Integrated Electronic Paper Display Acceleration Engine**
The B300 integrates electronic paper display(EPD) controller with 2332×1650 resolution at 100Hz refresh rate, supporting for up to 16 non-overlap pipeline region update.
- **Low Power Consumption Solution**
The B300 supports low-power LPDDR4 memory, and provides a stable and total solution, including Allwinner PMU, which helps maximize power efficiency and a battery life.

Feature List

CPU	<ul style="list-style-type: none">• Quad-core ARM Cortex™-A7@1.8GHz• 32KB L1 I-cache + 32KB L1 D-cache per core• 512KB L2 cache
GPU	<ul style="list-style-type: none">• Mali400 MP2• Supports OpenGL ES 2.0/1.1, Direct3D 11.1, OpenVG 1.1
Memory	<ul style="list-style-type: none">• 32-bit DDR4/DDR3/DDR3L/LPDDR3/LPDDR4• eMMC 5.0• 8-bit TLC/MLC/SLC/EF NAND flash• SPI Nand flash
Display	<ul style="list-style-type: none">• Supports H.265/H.264 1080p@60fps video decoding and H.264 1080p@60fps video encoding• Supports 5-bit E-INK LCD• E-INK engine supporting up to 2332x1650@100Hz
Connectivity	<ul style="list-style-type: none">• USB Host, USB 2.0 OTG• SDIO 3.0, RSB• 4 x TWI, 2 x SPI• 6 x UART, 3 x PWM• GPADC, KEYADC
WiFi	XR829 or others
OS	Android 8.1
Package	Restrictions on the use of certain hazardous substances(RoHS), thin&fine-pitch ball grid array(TFBGA)413balls, 12.8mm x 12.3mm body size, 0.5mm ball pitch, 0.3mm ball size

Block Diagram



ABOUT ALLWINNER

Allwinner Technology is a leading fabless design company dedicated to smart application processor SoCs and smart analog ICs. Its product line includes multi-core application processors for smart devices and smart power management ICs used by brands worldwide.

With its focus on cutting edge UHD video processing, high performance multi-core CPU/GPU integration, and ultra-low power consumption, Allwinner Technology is a mainstream solution provider for the global tablet, internet TV, smart home device, automotive in-dash device, smart power management, and mobile connected device markets. Allwinner Technology is headquartered in Zhuhai, China.

CONTACT US

For more product info, please contact service@allwinnertech.com, or scan the QR code to follow us on Wechat.

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