

Dedicated Processor





For TV Video Theatre Device

Overview

The D100 processor represents Allwinner's newest solution for TV Video Theatre Devices. The processor supports broadcasting standards such as DTMB and incorporates the latest H.265 video decoder and advanced audio system. With value innovation a trademark of Allwinners solutions this processor benefits from low power consumption and a high level of system integration built into the architecture of the processor. These features help ensure the D100 provides users with rich HD video content and playback with tasks being executed smoothly and responsively.

In order to reduce the BOM cost, the D100 integrates internal DDR2 memory. It has a wide level of support for a number of interfaces, such as RGB LCD, LVDS, TVIN, TVOUT, USB, I2S/PCM, UART and SPI.

Highlights

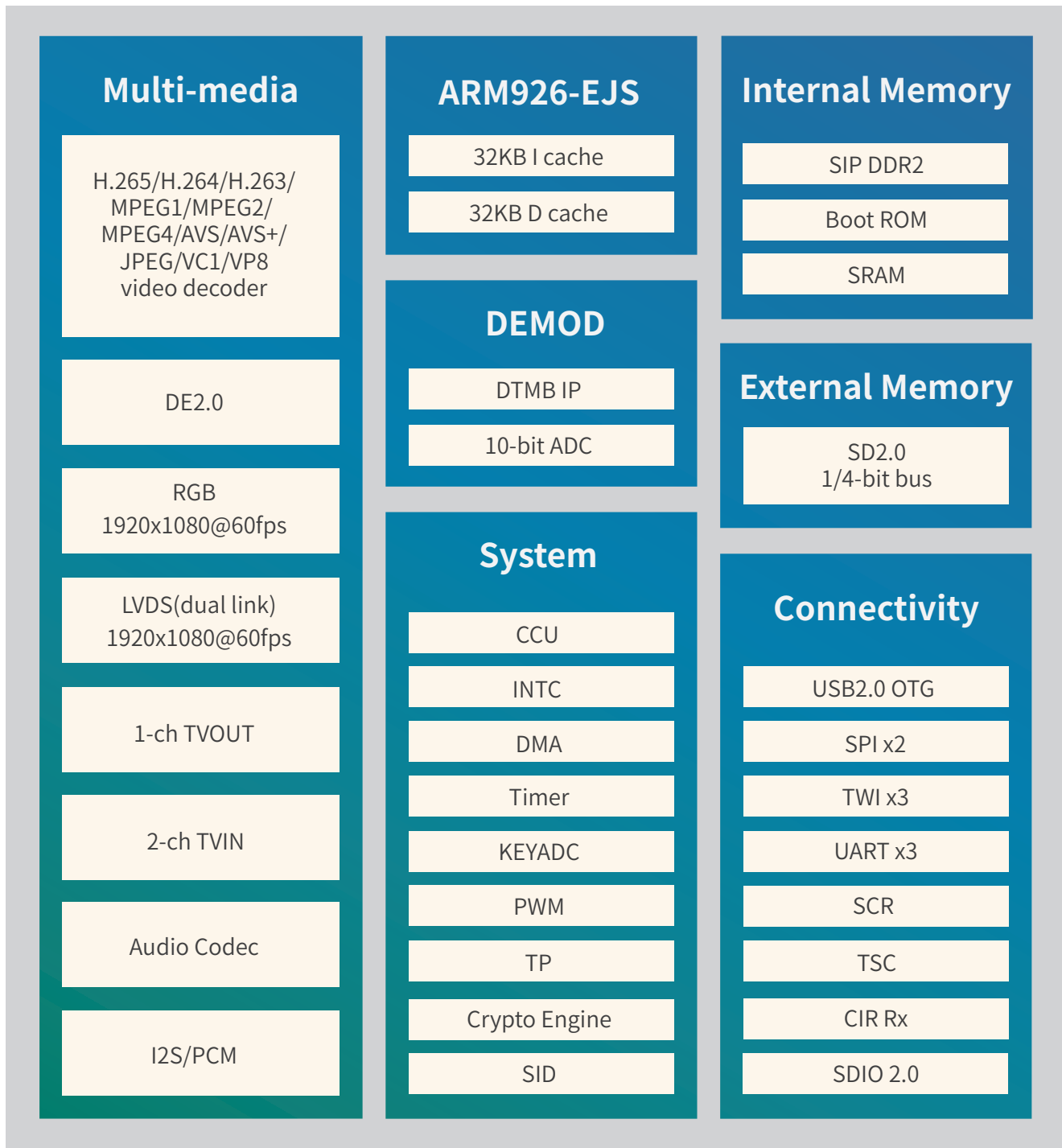
-  Integrated DTMB demod by a large margin;
-  Supports AVS/AVS+/H.265 1080p@45fps, for better performance and to satisfy the every day demands of the end user.
-  Supports RGB/LVDS Screen at 1080P resolution;
-  SIP DDR2

Features

CPU	<ul style="list-style-type: none">• ARM926-EJS• Supports 32 KB Instruction cache and 32 KB Data cache
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DEMOD	<ul style="list-style-type: none"> • Supports DTMB receiver - general specification GB/T26686 • Supports all 330 working modes for national standard GB20600-2006 • Supports low IF Tuner input • Supports 10 bits single channel ADC with 30.4 MHz sampling frequency • Supports TS stream output
Memory	<ul style="list-style-type: none"> • Boot ROM <ul style="list-style-type: none"> - On-chip memory - Supports system boot from the following device: SD Card, SPI Nor Flash, SPI Nand Flash, USB OTG • SDRAM <ul style="list-style-type: none"> - SIP DDR2 memory - Supports clock frequency up to 400 MHz • SMHC <ul style="list-style-type: none"> - 2 SD/MMC Host Controller(SMHC) interfaces - Compliant with SD physical layer specification V2.0, SDIO card specification V2.0
Display	<ul style="list-style-type: none"> • Supports 18-bit RGB interface <ul style="list-style-type: none"> - Up to 1920x1080@60fps - Supports dither function - Supports Gamma parameter adjusting • Supports LVDS interface <ul style="list-style-type: none"> - Dual link LVDS mode output up to 1920x1080@60fps - Single link LVDS mode output up to 1366x768@60fps - Multiplex pin with RGB interface • Supports 1-ch TV CVBS output <ul style="list-style-type: none"> - Supports NTSC and PAL mode - Plug status auto detecting Video
Video	<ul style="list-style-type: none"> • Supports multi-format 1080p@45fps video playback, including: H.265 MP/L5.2, H.264, H.263, MPEG1/2/4, AVS/AVS+
Audio	<ul style="list-style-type: none"> • Integrated audio codec, supporting 24bit/192kHz audio playback • I2S/PCM interface for connecting to an external audio codec
External Peripherals	<ul style="list-style-type: none"> • Supports USB 2.0, TWI×3, SPI×2, UART×3, CIR, SCR, TSC
Package	<ul style="list-style-type: none"> • eLQFP128(SIP DDR2), 14 mm x 14 mm

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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