



F1C500s

Car HD multimedia processor

Overview

The F1C500s is a highly integrated, low-power mobile application processor that can be used in a wide range of multimedia audio and video equipment.

The F1C500s is based on the ARM9 architecture and integrates DDR. It supports HD video decoding, including H.264, H.263, MPEG1/2/4, etc. It also integrates audio codec and I2S/PCM interface to enhance the user experience.

The F1C500s has excellent system integration capabilities, simple development, supports for low-power applications and rich interfaces such as USB OTG, UART, SPI, TWI, TP, SD/MMC, CSI, etc., which can support operations such as Melis, Linux OS. It is a product with simple development and high cost performance.

Highlights



H.264 video decoding

Support H.264 1280x720@30fps decoding

Support MPEG1/2/4 1280x720@30fps decoding



MJPEG video encoding

Support MJPEG 1280x720@30fps encode

Support JPEG encode 8192x8192



High integration

Integrated 32MB DDR1, integrated audio codec

Integrated rich interfaces, audio and video images, such as TV IN/OUT



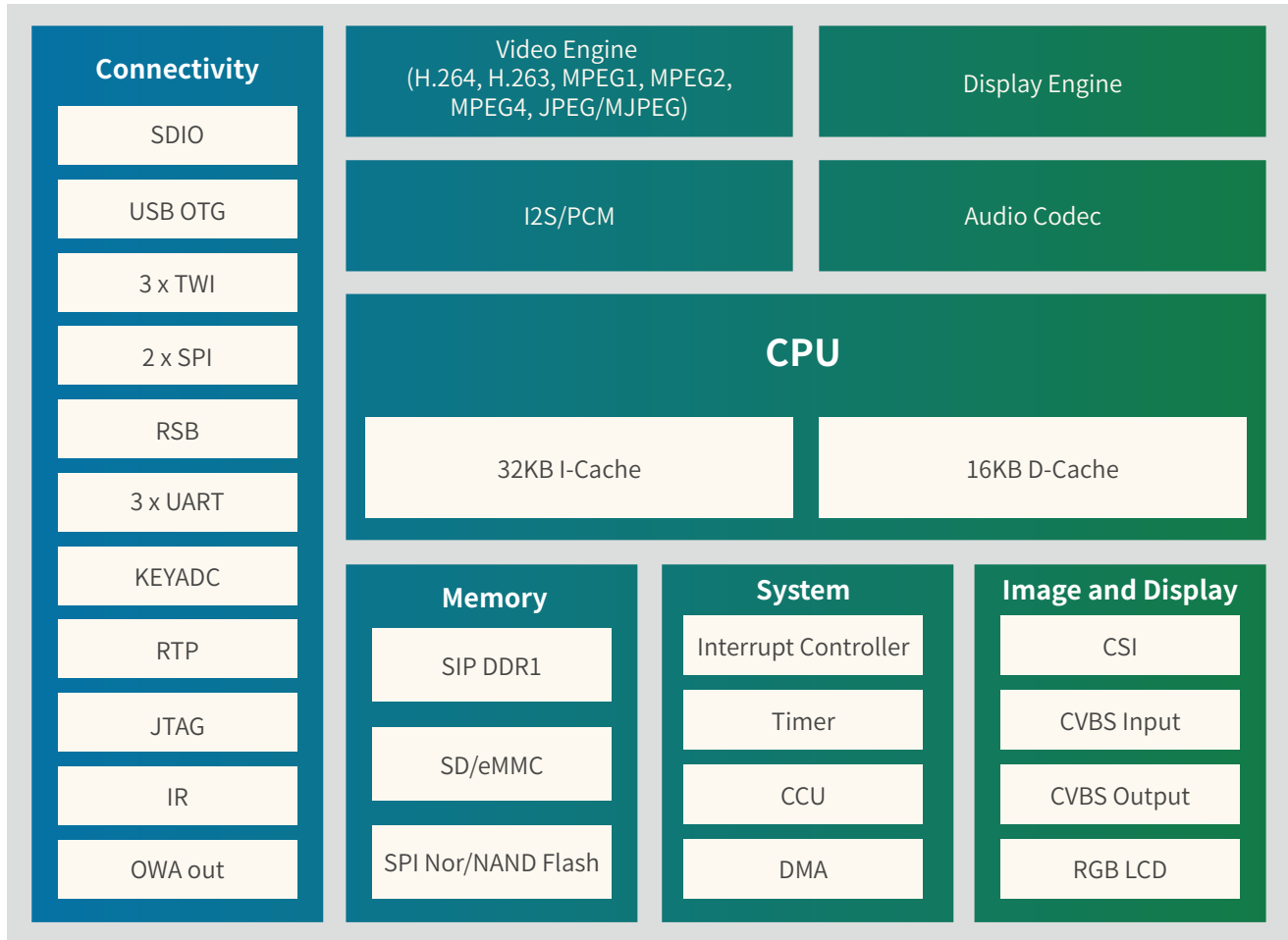
Low cost, low power consumption, easy to develop

The chip is highly integrated, the BOM development cost is low, the external materials are streamlined, and the development is simple.

Features

CPU	<ul style="list-style-type: none">• ARM9 CPU architecture• 16KByte D-Cache• 32KByte I-Cache
Memory	<ul style="list-style-type: none">• SIP 32MB DDR1• SD2.0, eMMC 4.41
Video	<ul style="list-style-type: none">• H.264 1280x720@30fps decoding• MPEG1/2/4 1280x720@30fps decoding• MJPEG 1280x720@30fps encoding• JPEG encode size up to 8192x8192
Camera	<ul style="list-style-type: none">• 8-bit CMOS-sensor interface• Supports CCIR656 protocol for NTSC and PA
Audio	<ul style="list-style-type: none">• Integrated analog audio codec with two DAC channels and one ADC channel, maximum 192kHz DAC sample rate and 48kHz ADC sample rate• One I2S/PCM interface
Display	<ul style="list-style-type: none">• LCD RGB interface up to 1280x720@60fps• TV CVBS output, support NTSC/PAL, with auto plug detecting
Connectivity	<ul style="list-style-type: none">• USB OTG, SDIO, IR, 3 x TWI, 2 x SPI, 3 x UART
OS	<ul style="list-style-type: none">• Melis, Linux OS
Package	<ul style="list-style-type: none">• QFN88, 10mm x 10mm
Process	<ul style="list-style-type: none">• 40nm

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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