








Octa-Core Processor of Smart Rearview Mirror

Overview

The Allwinner V66 is an octa-core ARM Cortex™-A7 processor targeted at the smart rearview mirror market. Supports two independent video channels, which assures the front-facing camera up to 2304*1296P@30fps and the rear camera up to 720P@30fps work at the same time.

Highlights

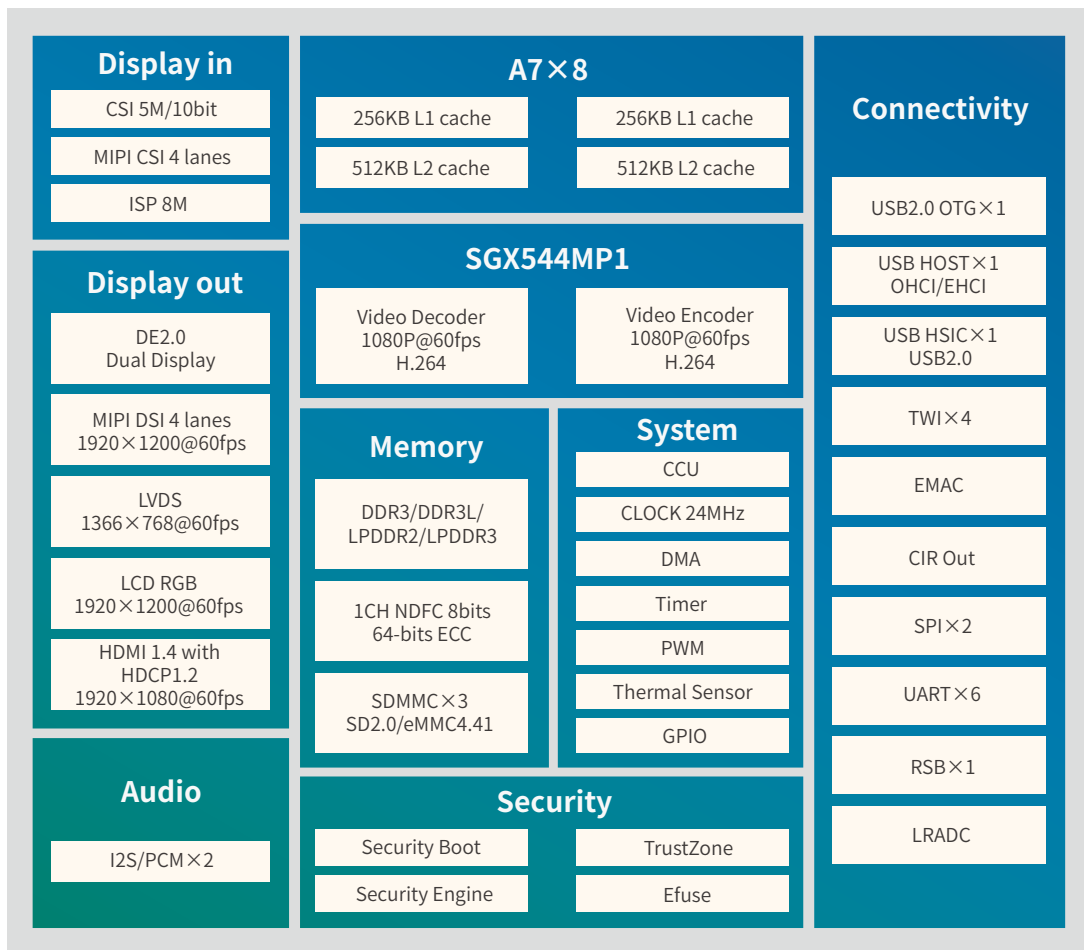
-  Based on an octa-core ARM Cortex™ -A7 CPU architecture and SGX 544 MP1 GPU, which providing the powerful processing and display performance.
-  Supports the multiple DRAM types as well as the dynamic frequency adjustment, a variety of automotive application scenario bandwidth and power consumption requirements.
-  Immerse yourself in a high-definition multi-format playback, supports H.264 1080p@60fps or 720p@120fps video encoding and H.265/VP9 decoder 1080p@30fps video playback with software.
-  Supports the multiple output interface, according to satisfy the display demand of RGB/LVDS/MIPI DSI etc.
-  Supports four-lane MIPI/ parallel CSI image sensor, integrated 8M HawkView ISP.
-  Built in professional ADAS 2.0 algorithm and split screen display function.
-  Supports Android 4.4 System and above.

Features

CPU	<ul style="list-style-type: none"> • Octa-Core Cortex™-A7 CPU up to 2.0GHz • Low-power CoolFlex™ power management architecture
GPU	<ul style="list-style-type: none"> • PowerVR SGX544 GPU up to 700MHz • Supports OpenGL ES 2.0/1.1, OpenCL 1.1, DX 9.3
Memory	<ul style="list-style-type: none"> • Supports 32-bit DDR3/DDR3L/LPDDR3/LPDDR2 • Supports eMMC
Video	<ul style="list-style-type: none"> • Supports multi-format 1080p@60fps video playback, including H.264 BP/MP/HP, VP8, MPEG1/2, MPEG4 SP/ASP GMC, H.263 including Sorenson Spark, WMV9/VC-1, JPEG/MJPEG, etc • Supports H.264 1080p@60fps or 720p@120fps video encoding

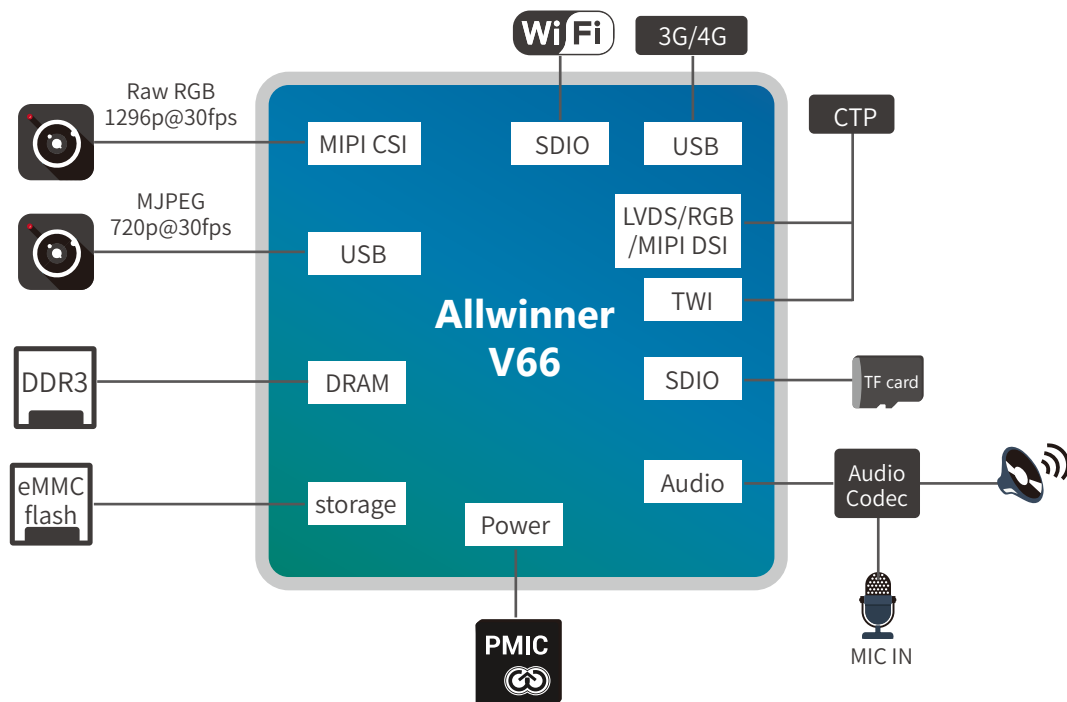
Display	<ul style="list-style-type: none"> • Support two independent display channels • Support RGB(24bits) up to 1920x1200@60Hz resolution • Support RGB666/656 ditcher function • Support LVDS up to 1366x768@60Hz resolution • Support 4-lane MIPI DSI(V1.0) up to 1920x1200@60Hz resolution • Support HDMI V1.4 output with HDCP1.2 up to 1920x1080@60Hz resolution
Camera	<ul style="list-style-type: none"> • Integrated 5MP parallel CMOS sensor • Integrated 8MP MIPI CSI controller • Integrated 8M ISP • Support 720P 30fps USB camera (UVC)
Audio	<ul style="list-style-type: none"> • Supports 24bit/192KHz audio playback • Supports two I2S/PCM interfaces up to 384KHz sample rate, and 16 channel TDM with 32bit sample resolution • Supports DSD interface with 2 channels, 64/128/256-bit sample mode • Supports DMIC interface with 8 channels, maximum 48KHz sample rate • Supports SPDIF OUT and IN interface
Wi-Fi	<ul style="list-style-type: none"> • Supports 802.11 b/g/n protocol • Full security support: WPS, WPA, WPA2, WEP, TKIP
PMIC	<ul style="list-style-type: none"> • Customized AXP818 PMIC
Package	<ul style="list-style-type: none"> • FCBGA 345 • 14mm x 14mm size

Block Diagram

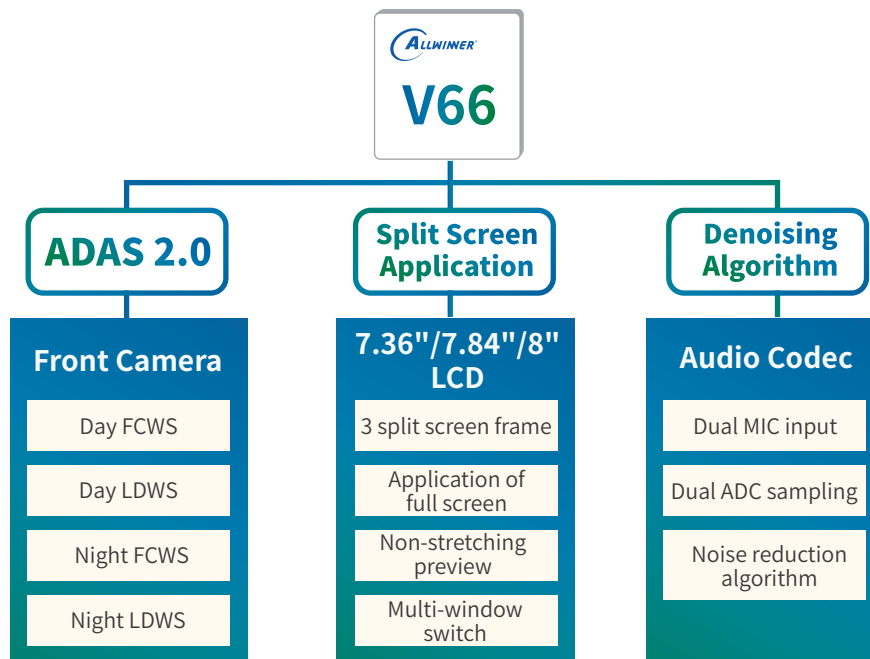


Application Diagram

1. Two independent video channels



2. ADAS 2.0 algorithm & Split screen application & Dual MIC noise reduction



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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