



Allwinner V3s: Entry-level Dual-Channel Dash Cams Solution

Allwinner V3s is a cost-efficient camera application solution that features:



1080p@30fps Video Encoding, Integrated ISP

Allwinner V3s comes with a high-performance and low bit-rate video engine that is capable of 1080p@30fps encoding. An advanced image signal processor (ISP) is integrated to provide higher image quality.



High System Integration, Integrated DRAM

Allwinner V3s integrates 64MB DRAM to reduce external component counts, greatly simplifying the PCB layout. It also integrates MIPI & parallel CSI controllers, LCD controller, audio codec, EMAC + PHY, etc. Allwinner V3s is available in 128-pin eLQFP package, remarkably improving the manufacturing efficiency.



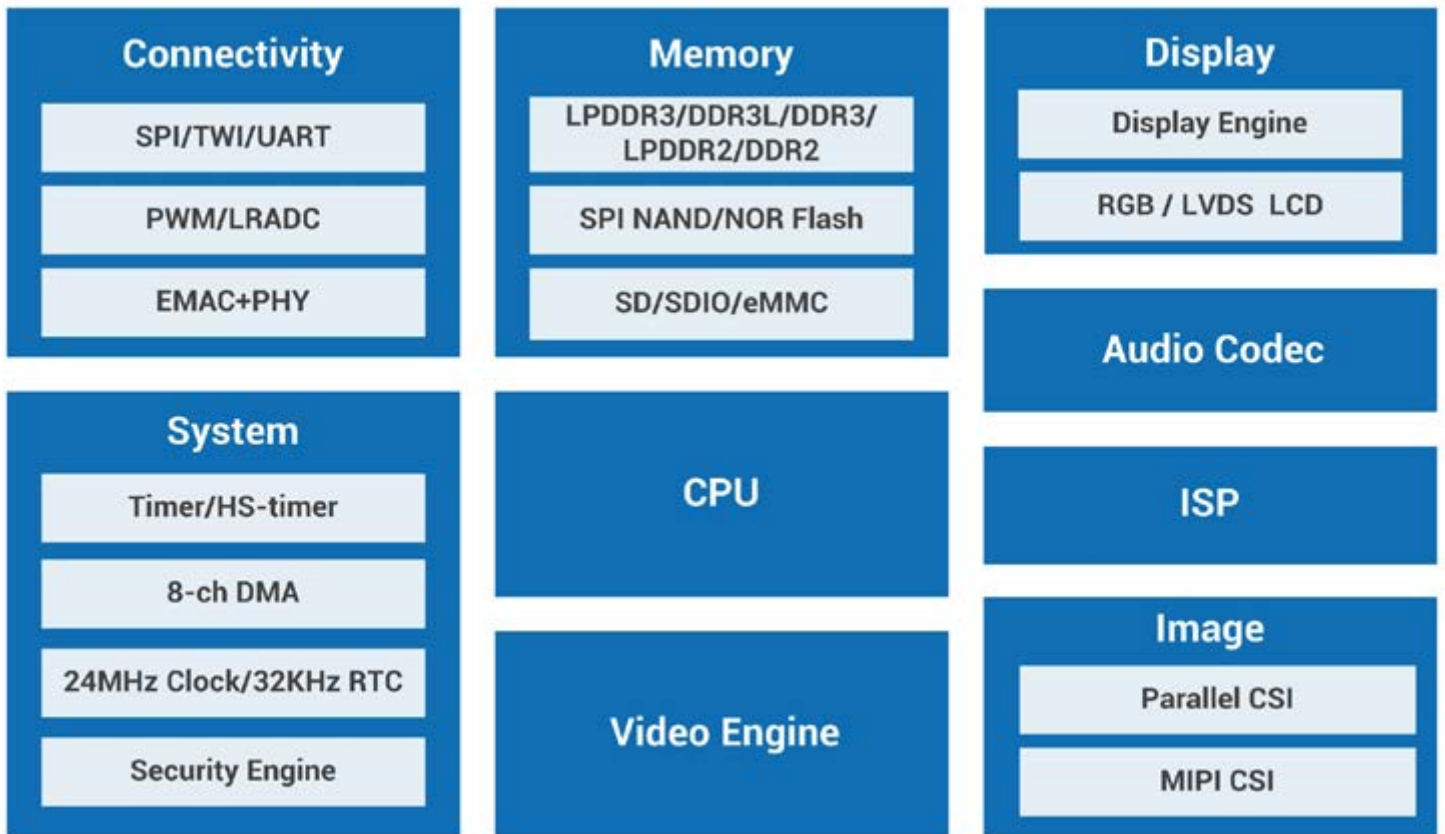
Lower Power Consumption

Allwinner V3s is highly power efficient due to its leading fabrication process and optimized processor architecture design.

Specifications

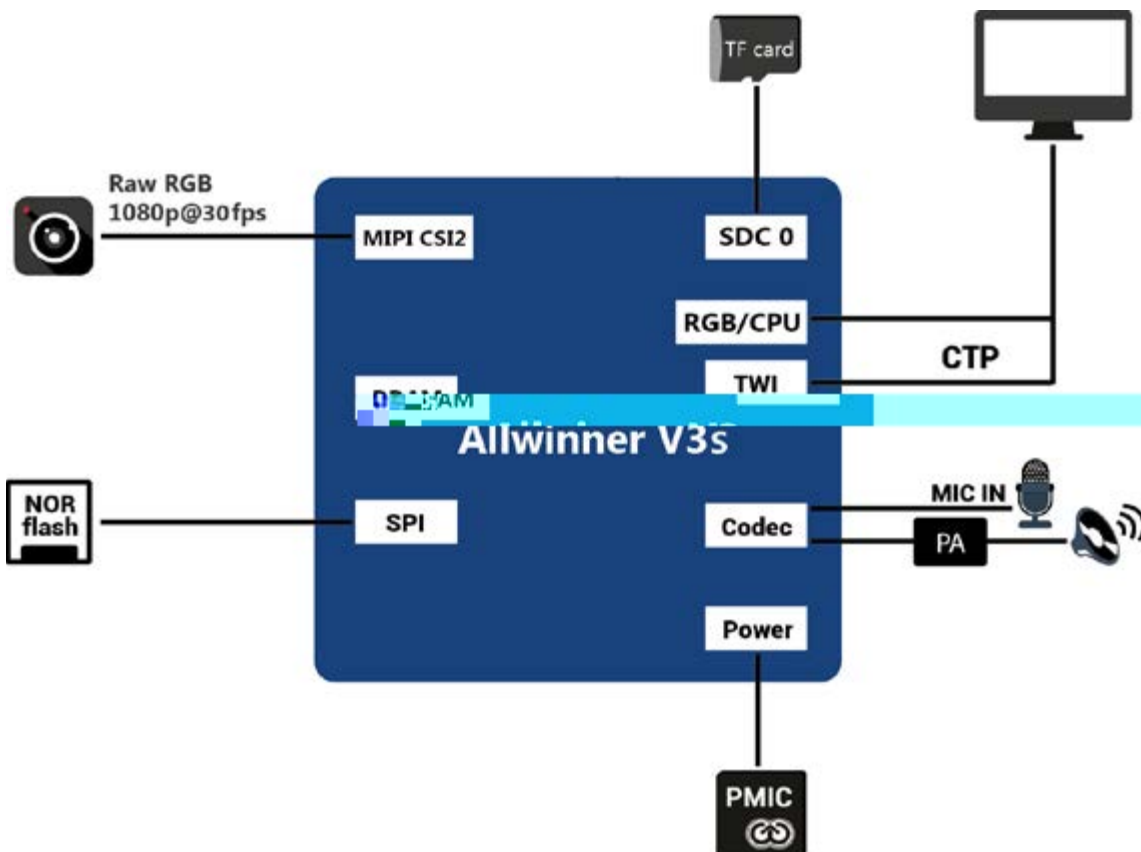
Video	<ul style="list-style-type: none"> • Supports 1080p@30fps video encoding • Supports H.264 and MJPEG 1080p@30fps video decoding
HawkView™ ISP	<ul style="list-style-type: none"> • Integrated ISP up to 8M pixels • Supports two channel output • Supports various input and output formats • Supports AE/AF/AWB • Supports saturation adjustment/ noise reduction/ defect pixel correction
Video Input/Output	<ul style="list-style-type: none"> • Supports 8/10/12/16-bit parallel CSI and 2-lane MIPI CSI2 • Supports up to 5M CMOS sensor • Supports RGB/CPU LCD up to 1024x768 resolution
CPU	<ul style="list-style-type: none"> • ARM® Cortex™-A7
Memory	<ul style="list-style-type: none"> • Integrated 64MB DRAM
Audio Codec	<ul style="list-style-type: none"> • Integrated 92dB audio codec • Supports two ADC channels and two DAC channels • Supports one low-noise analog microphone bias outputs • Supports one microphone input and one stereo microphone output
Connectivity	<ul style="list-style-type: none"> • 3 x SD controllers • LRADC/SPI/TWI/UART/PWM • USB
OS	<ul style="list-style-type: none"> • Supports Camdroid OS, an Android-lite operating system • Supports Linux OS
Package	<ul style="list-style-type: none"> • 128-pin eLQFP

Block Diagram

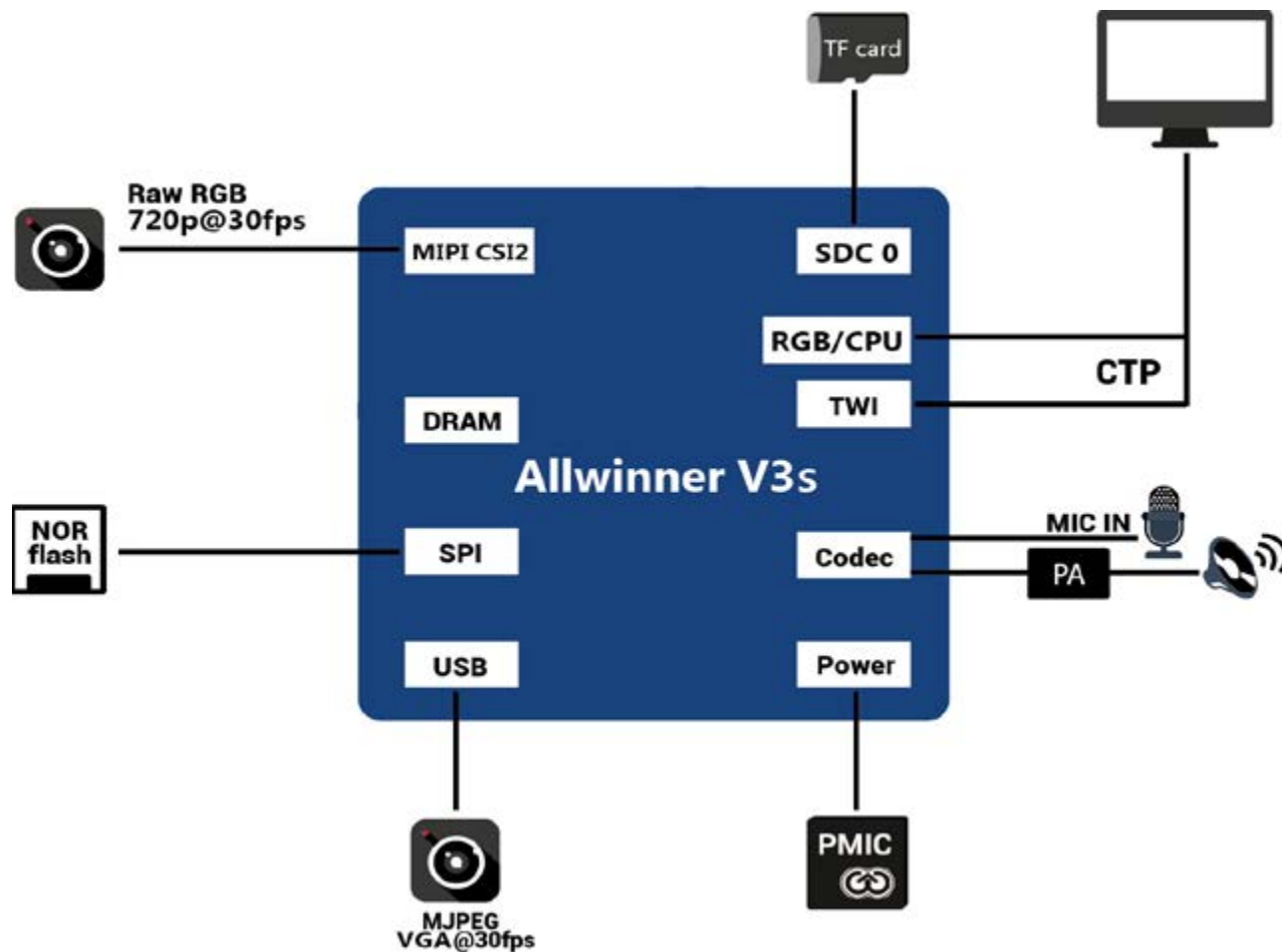


Application Diagrams

i) 1080p@30fps application



ii) Front 720p & Rear VGA application



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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