

# Allwinner V3s: The Most Cost-Efficient Camera 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.



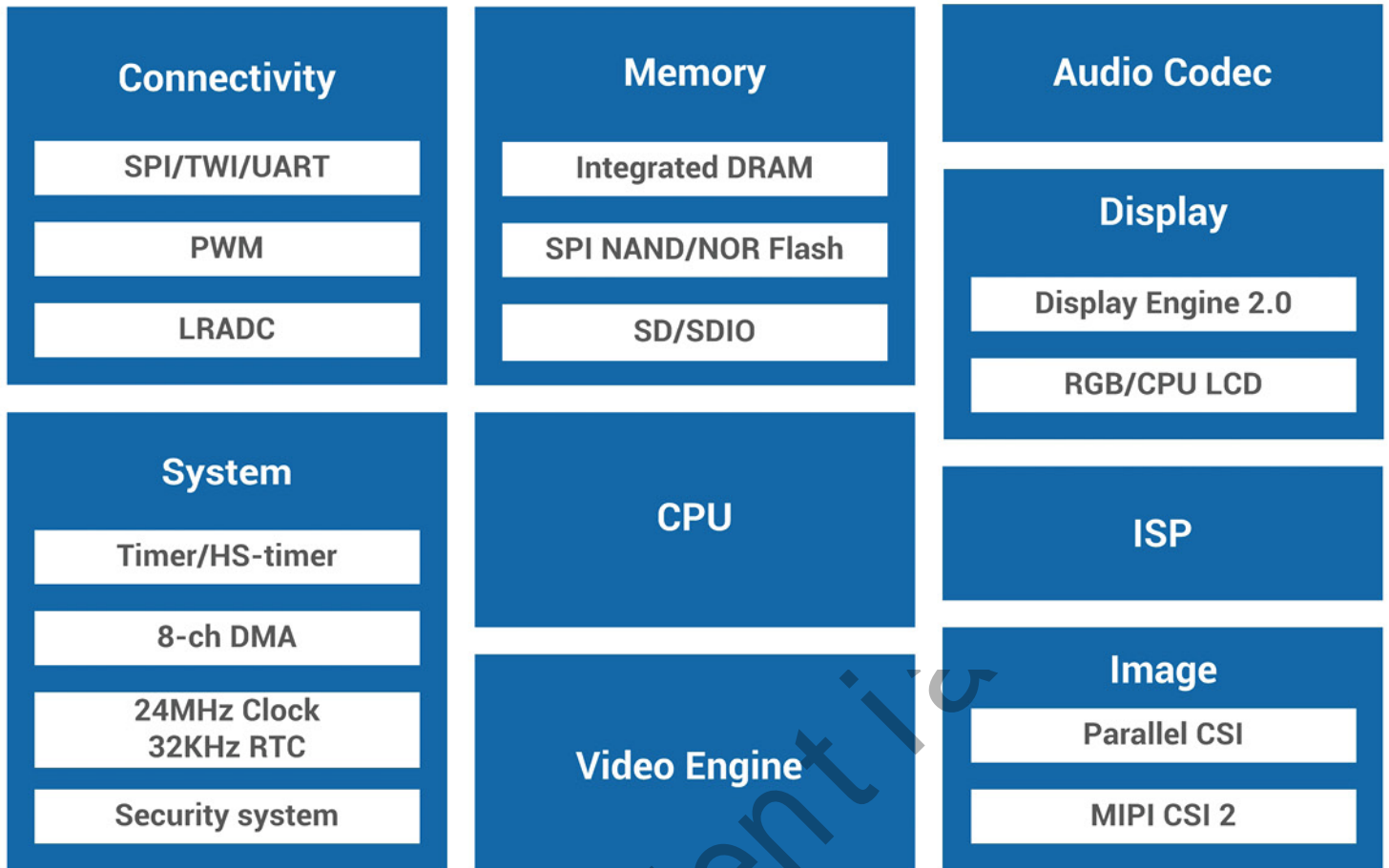
## Lower Power Consumption

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

## Specifications

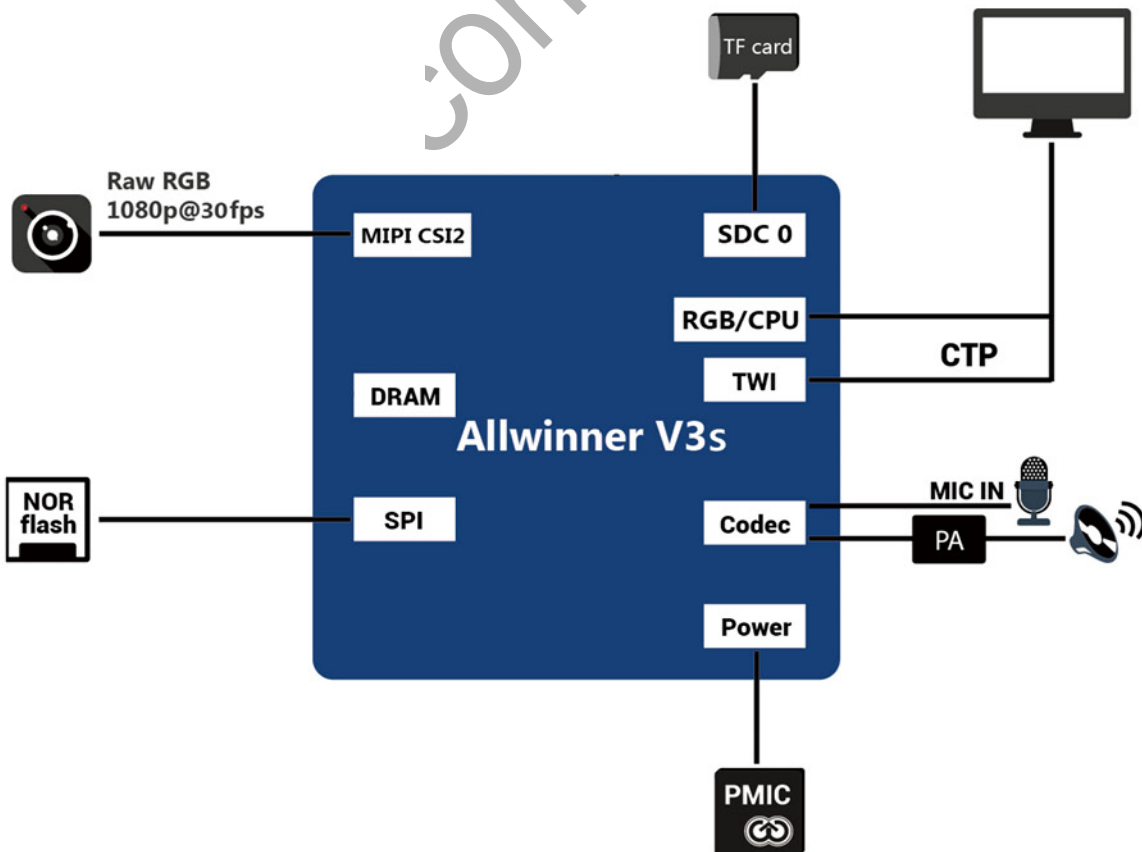
Video	<ul style="list-style-type: none"> <li>• Supports 1080p@30fps video encoding</li> <li>• Supports H.264 and MJPEG 1080p@30fps video decoding</li> </ul>
HawkView™ ISP	<ul style="list-style-type: none"> <li>• Integrated ISP up to 8M pixels</li> <li>• Supports two channel output</li> <li>• Supports various input and output formats</li> <li>• Supports AE/AF/AWB</li> <li>• Supports saturation adjustment/ noise reduction/ defect pixel correction</li> </ul>
Video Input/Output	<ul style="list-style-type: none"> <li>• Supports 8/10/12/16-bit parallel CSI and 2-lane MIPI CSI2</li> <li>• Supports up to 5M CMOS sensor</li> <li>• Supports RGB/CPU LCD up to 1024x768 resolution</li> </ul>
CPU	<ul style="list-style-type: none"> <li>• ARM® Cortex™-A7 @1.2GHz</li> </ul>
Memory	<ul style="list-style-type: none"> <li>• Integrated 64MB DRAM</li> </ul>
Audio Codec	<ul style="list-style-type: none"> <li>• Integrated 92dB audio codec</li> <li>• Supports two ADC channels and two DAC channels</li> <li>• Supports one low-noise analog microphone bias outputs</li> <li>• Supports one microphone input and one stereo microphone output</li> </ul>
Connectivity	<ul style="list-style-type: none"> <li>• 3 x SD controllers</li> <li>• LRADC/SPI/TWI/UART/PWM</li> <li>• USB</li> </ul>
OS	<ul style="list-style-type: none"> <li>• Supports Camdroid OS, an Android-lite operating system</li> <li>• Supports Linux OS</li> </ul>
Package	<ul style="list-style-type: none"> <li>• 128-pin eLQFP</li> </ul>

## Block Diagram

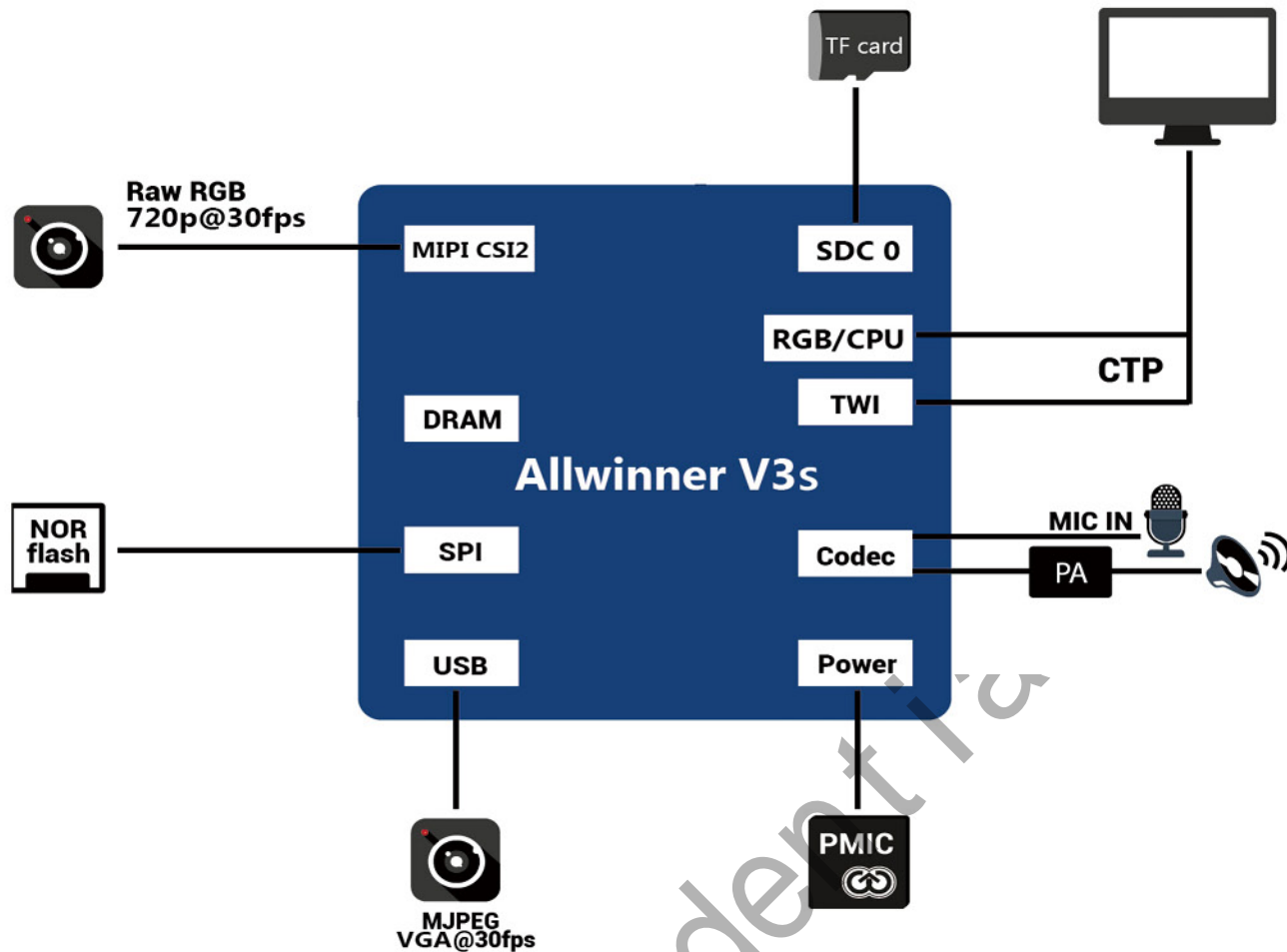


## Application Diagrams

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](mailto:service@allwinnertech.com), or scan the QR code to follow us on Wechat.

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