

# The Most Cost-Efficient Tablet Processor **64-Bit**



Allwinner A64 is a quad-core 64-bit tablet processor based on ARM Cortex-A53 architecture, targeting at entry-level 64-bit tablet market.



## 64-bit, 4-Core Cortex-A53 CPU

Allwinner A64 packs four Cortex-A53 CPU cores that implements the latest 64-bit ARMv8 architecture, delivering significantly higher system performance with less power consumption.



## H.265 4K Video Hardware Decoding

Allwinner A64 features a robust video engine that supports H.265 4K video hardware decoding, and H.264 1080p@60fps or 720p@120fps video encoding.



## Next-Gen Display Engine 2.0, 4K HDMI Output, SmartColor Display

With the next-gen Display Engine 2.0, Allwinner A64 is capable of 4K HDMI output. It also comes with the latest SmartColor display technology to provide end users with pleasant visual entertainment experience.



## High System Integration

Targeting at entry-level 64-bit tablet, Allwinner A64 features high system integration to make its BOM cost more competitive, including on-chip audio codec, eMMC 5.0 support, LPDDR2/LPDDR3 support, etc.



## Android 5.0 Lollipop OS, Linux Kernel v3.10

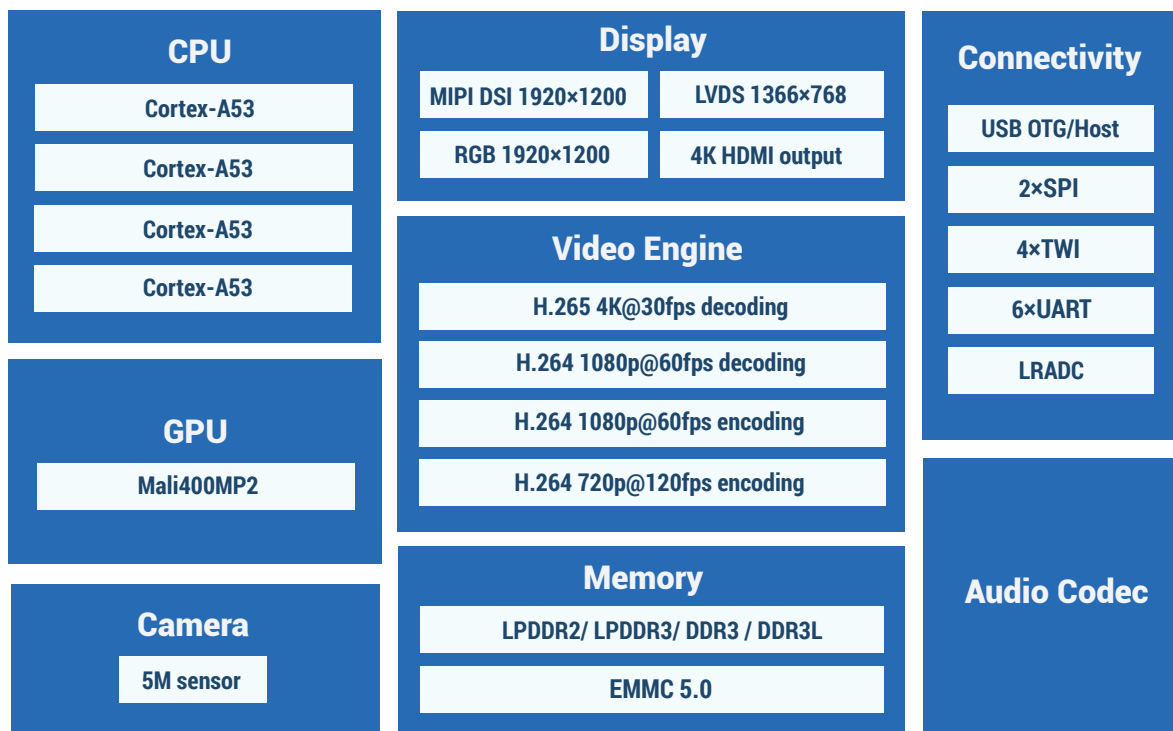
Allwinner A64 runs on Android 5.0 Lollipop operating system, and it'll be based on Linux Kernel v3.10 to maximize the advantages the 64-bit architecture.

## Features

<b>CPU</b>	<ul style="list-style-type: none"> <li>· Quad-core Cortex-A53</li> </ul>
<b>GPU</b>	<ul style="list-style-type: none"> <li>· Mali400MP2 GPU</li> <li>· Supports OpenGL ES 2.0 , Open VG1.1</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>· Supports LPDDR2/ LPDDR3/ DDR3 / DDR3L SDRAM</li> <li>· Supports 8-bit SLC/MLC/TLC/EF NAND with 64-bit ECC</li> <li>· Supports SD/eMMC/tSD/fSD/efSD</li> </ul>

<b>Video</b>	<ul style="list-style-type: none"> <li>· Supports H.265 4K@30fps video decoding</li> <li>· Supports multi-format 1080p@60fps video decoding, including H.264 BP/MP/HP, VP8, MPEG1/2, MPEG4 SP/ASP GMC, H.263 including Sorenson Spark, WMV9/VC-1, JPEG/MJPEG, etc</li> <li>· Supports H.264 1080p@60fps or 720p@120fps video encoding</li> </ul>
<b>Camera</b>	<ul style="list-style-type: none"> <li>· Supports 5M pixel camera sensor</li> </ul>
<b>Display</b>	<ul style="list-style-type: none"> <li>· Supports MIPI DSI up to 1920x1200</li> <li>· Supports LVDS up to 1366x768, support RGB up to 1920x1200</li> <li>· Supports 4K HDMI output with HDCP</li> <li>· Supports HDMI CEC</li> <li>· Supports HDMI 3D function</li> </ul>
<b>Integration</b>	<ul style="list-style-type: none"> <li>· Audio Codec</li> <li>· USB OTG/HOST/HSIC</li> <li>· 2x SPI, 4x TWI, 6x UART, LRADC, SDIO</li> </ul>
<b>Package</b>	<ul style="list-style-type: none"> <li>· BGA, 396 balls, 0.65mm pitch, 15mm x 15mm</li> </ul>

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

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