

## H80: The Most Cost-efficient 8-Core Processor for Gaming & OTT Boxes



### Overview

Allwinner H80 is a high performance OCTA-core application processor based on eight ARM Cortex-A7 cores that targets at middle range gaming OTT box and mobile application markets.

With eight Cortex-A7 cores, and Imagination's PowerVR SGX544 GPU, H80 is capable of outstanding graphic processing capability, providing users with fluid UI and excellent gaming experiences. It also supports multiformat 1080p@60fps video processing, and supports HEVC/H.265 video decoding. Allwinner's latest SmartColor display technology is also supported by H80 to deliver better image quality.

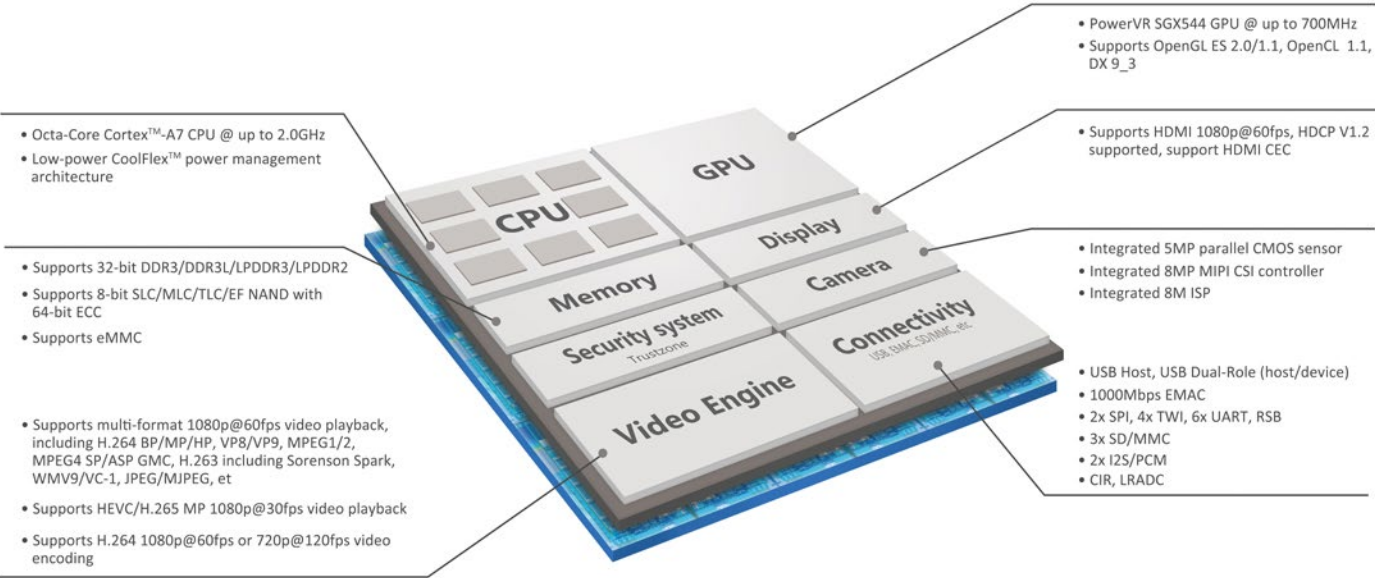
H80 features TSMC's latest 28nm HPC fabrication process to deliver remarkable system performance with low heat emission.

### Features

CPU	<ul style="list-style-type: none"><li>• Octa-Core Cortex™-A7 CPU</li><li>• Low-power CoolFlex™ power management architecture</li></ul>
GPU	<ul style="list-style-type: none"><li>• PowerVR SGX544 GPU</li><li>• Supports OpenGL ES 2.0/1.1, OpenCL 1.1, DX 9_3</li></ul>
Memory	<ul style="list-style-type: none"><li>• Supports 32-bit DDR3/DDR3L/LPDDR3/LPDDR2</li><li>• Supports 8-bit SLC/MLC/TLC/EF NAND with 64-bit ECC</li><li>• Supports eMMC</li></ul>
Video	<ul style="list-style-type: none"><li>• 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</li><li>• Supports H.265/VP9 1080p@30fps video playback</li><li>• Supports H.264 1080p@60fps or 720p@120fps video encoding</li></ul>
Display	<ul style="list-style-type: none"><li>• Supports HDMI 1080p@60fps, HDCP V1.2 supported, support HDMI CEC</li></ul>
Camera	<ul style="list-style-type: none"><li>• Integrated 5MP parallel CMOS sensor</li><li>• Integrated 8MP MIPI CSI controller</li><li>• Integrated 8M ISP</li></ul>

Connectivity	<ul style="list-style-type: none"><li>• USB Host, USB Dual-Role (host/device)</li><li>• 1000Mbps Ethernet MAC</li><li>• 2x SPI, 4x TWI, 6x UART, RSB</li><li>• 3x SD/MMC</li><li>• 2x I2S/PCM</li><li>• CIR, LRADC</li></ul>
OS	<ul style="list-style-type: none"><li>• Android 4.4 and above</li></ul>
PMIC	<ul style="list-style-type: none"><li>• Customized AXP818 PMIC</li></ul>
Package	<ul style="list-style-type: none"><li>• FCBGA 345</li><li>• 14mm x 14mm size</li></ul>
Process	<ul style="list-style-type: none"><li>• TMSC's 28nm HPC</li></ul>

Block Diagram



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.

For more product info, please contact [service@allwinnertech.com](mailto:service@allwinnertech.com), or scan the QR code to follow us on Wechat.