



Dual-Core Mobile Application Processor

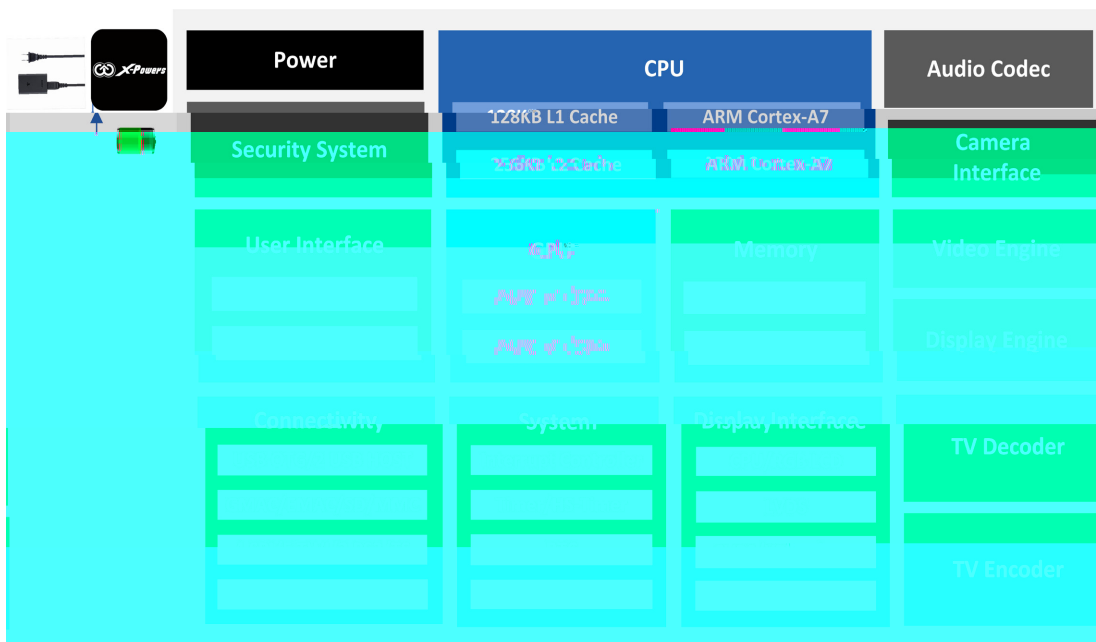
Multi-core performance is now a critical requirement of new consumer, home, and auto infotainment devices. As computing resource requirements increase, computing power must adapt in response. Applications like web-browsing, streaming video, gaming, and file sharing are growing in complexity as users require faster and more enjoyable content. Allwinner's A20 processor, a dual-core Cortex™-A7 system, delivers a multi-core solution for tablets, smart TV, IPTV, and portable devices that effectively balances system cost, performance, and power consumption.

The A20 processor is based on a dual-core ARM® Cortex™-A7 CPU architecture, the most energy efficient application processor from ARM

Applications



cycle and enables customers to directly upgrade already-mature single-core platforms directly to dual-core.



Features

CPU	<ul style="list-style-type: none"> ARM® Cortex™-A7 Dual-Core
GPU	<ul style="list-style-type: none"> ARM® Mali400MP2 Complies with OpenGL ES 2.0/1.1
Video	<ul style="list-style-type: none"> HD H.264 2160p video decoding Multi-format FHD video decoding, including Mpeg1/2, Mpeg4 SP/ASP GMC, H.263, H.264, VP6/8, AVS jizun, Jpeg/Mjpeg, etc. H.264 High Profile 1080p@30fps or 720p@60fps encoding 3840x1080@30fps 3D decoding, BD/SBS/TAB/FP supported Complies with RTSP, HTTP,HLS,RTMP,MMS streaming media protocols
Display	<ul style="list-style-type: none"> Supports multi-channel HD display Integrated HDMI 1.4 transmitter with HDCP support CPU/RGB/LVDS LCD interface Supports CVBS/YPbPr/VGA Integrated TV decoder
Camera	<ul style="list-style-type: none"> Integrated parallel 8-bit I/F YUV sensor Integrated 24-bit parallel YUV 444 I/F Supports 5M CMOS sensor Supports dual sensors
Memory	<ul style="list-style-type: none"> DDR2/DDR3/DDR3L controller NAND Flash controller with 64-bit ECC
Audio	<ul style="list-style-type: none"> Integrated Hi-Fi 100dB audio codec Dual analog mic amplifiers
OS	<ul style="list-style-type: none"> Android 4.2 and above

Selection Guide

Allwinner Cortex-A Family

	A31	A31s	A20	A10s	A13
CPU	Quad-Core Cortex™-A7	Quad-Core Cortex™-A7	Dual-Core Cortex™-A7	Single-Core Cortex™-A8	Single-Core Cortex™-A8
GPU	SGX544MP2	SGX544MP2	Mali400MP2	Mali400	Mali400
Video Playback	4Kx2K	2160p	2160p	1080p	1080p
Video Capture	H.264 HP 1080p@60fps	H.264 HP 1080p@30fps 720p@60fps	H.264 HP 1080p@30fps 720p@60fps	H.264 MP 720p@30fps	H.264 MP 720p@30fps
LCD	2048Xfn	ĩ	♥ W ,		