



intelligent voice interaction solution with screen

The highly competitive small-screen dual-mic voice interaction intelligent chip

Overview

The R11 integrates a single-core ARM Cortex™-A7 CPU that operates at speed up to 1.2GHz. A 64MB DDR2 is embedded in the R11. The R11 includes full functions such as dual-mic voice interaction , 720p screen display, slide and touch interaction, 720p video record, etc. The integrated video engine supports H.264 1080p@30fps decoder and H.264 720p@60fps encoder. Audio subsystem includes integrated audio codec and I2S/PCM/TDM interface. The R11 includes rich interfaces such as MIPI CSI, DVP camera interface, RGB/LVDS LCD output, etc. Besides, the R11 can support TINA OS, MINI GUI. The R11 is qualified to industrial standard in white electricity

Highlights



Dual-mic middle-near field intelligent voice interaction

The R11 integrates ADC,DAC, and I2S/TDM interface, supports FPU and NEON, which meets requirements in dual-mic noise reduction, AEC, wake-up, local command word algorithm and cloud ASR, IOT interaction functions. The R11 is an ideal choice of middle-near field voice interaction solution.



720p display and touch interaction

The R11 integrates 720p@60fps RGB/LVDS interface, and H.264 1080p@30fps video decoder, and supports on-line media playback, TINA OS, MINI GUI.



Powerful camera function

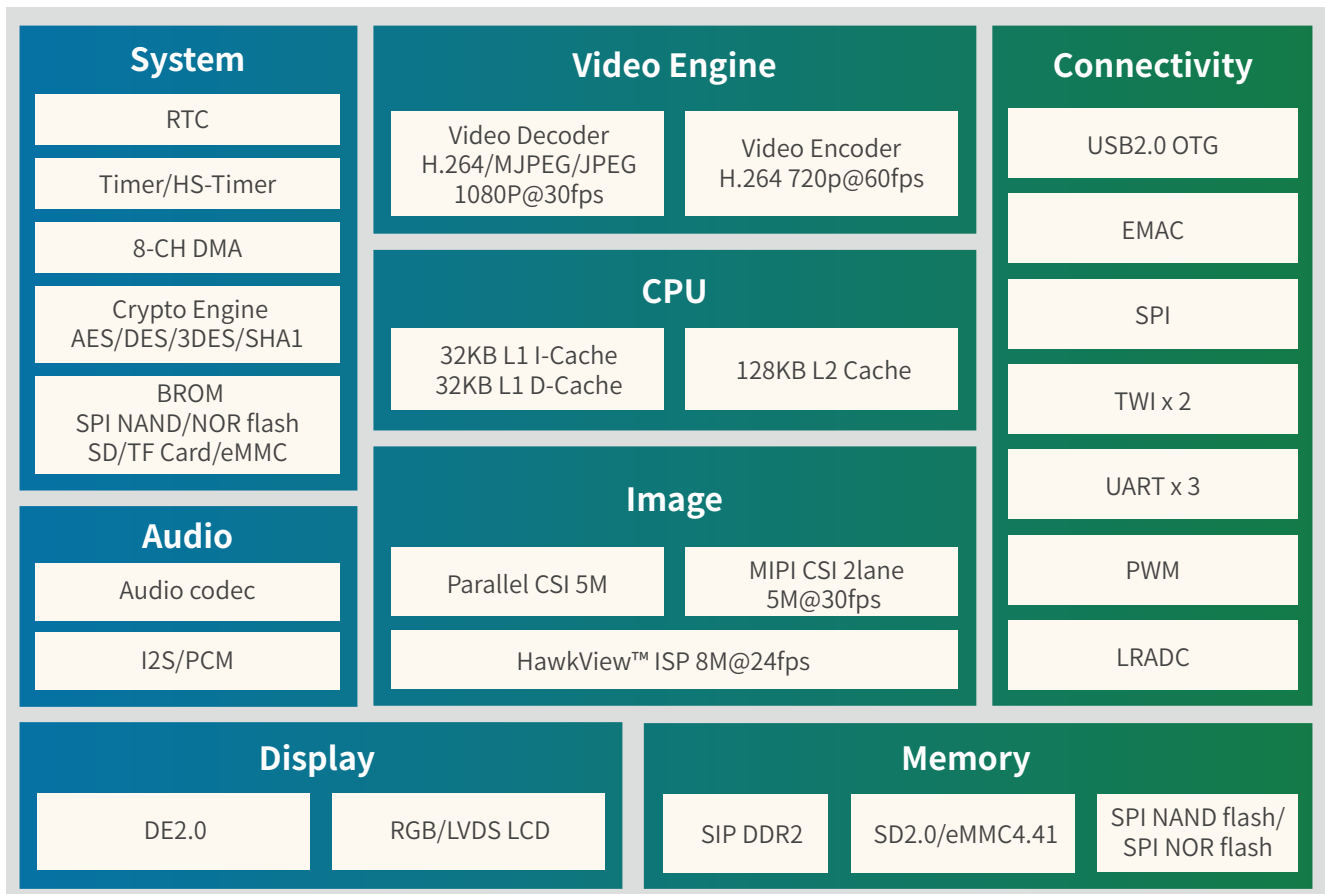
The R11 integrates MIPI CSI, DVP, 8M ISP, and H.264 720p@60fps encoder, which can implement on-line video calling, image identification function.

Features

CPU	<ul style="list-style-type: none"> • ARM® Cortex™-A7 @1.2GHz
Video	<ul style="list-style-type: none"> • Supports H.264 encoder up to 720p@60fps • Supports H.264 and JPEG/MJPEG decoder up to 1080p@30fps
ISP	<ul style="list-style-type: none"> • Integrated ISP up to 8M pixels • Supports two channel outputs for display and encoding respectively • Supports various input and output formats • Supports AE/AF/AWB • Supports saturation adjustment/noise reduction/defect pixel correction/ distortion correction

Video Input/Output	<ul style="list-style-type: none"> • Supports 8/10/12-bit parallel CSI and 4-lane MIPI CSI2 • Supports BT1120 input • Supports up to 8M CMOS sensor • Video capture resolution up to 1080p@30fps • Supports RGB LCD output, up to 1024x768@60fps • Supports Allwinner's next-gen SmartColor display technology for better visual effects for images & videos
Memory	<ul style="list-style-type: none"> • SIP 16-bit DDR2
Audio Codec	<ul style="list-style-type: none"> • Supports two ADC channel and two DAC channels • Supports one stereo headphone output • Supports one differential microphone input
Security Engine	<ul style="list-style-type: none"> • Supports AES/DES/TDES, SHA1 and MD5
Connectivity	<ul style="list-style-type: none"> • SDIO, LRADC, SPI, TWI, UART, PWM, USB
OS	<ul style="list-style-type: none"> • Supports Linux OS
Package	<ul style="list-style-type: none"> • eLQFP 128 (including one built-in DDR2)

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, or scan the QR code to follow us on Wechat.

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