



RV1106

A high

SoC



Features

CPU

ARM Cortex-A7, 1.2GHz

MCU 300MHz

NPU

0.5TOPS, support INT4, INT8, INT16

Memory

16-bit DDR3/DDR3L/DDR4

RV1106G2 embedded 1Gb DDR design

eMMC 4.51, can also support SPI Flash

Multi-Media

5M ISP 3.x with 2F HDR(Line-based/Frame-based/DCG)

Support 2*MIPI CSI/MIPI DSI/MIPI DSI

MIPI DSI interface with DTG/DTG/DTG/DTG

H.264/H.265 encoder capability:

3072*1728@25 + 1280*720@25 +

720*576@25 + 5FPS JPEG

2592*1944@25 + 1280*720@25 +

720

2880*1620@25 + 1280*720@25 + 720*576@25

+ 5FPS JPEG

2560*1440@30 + 1280*720@30 +

720*576@30 + 5FPS JPEG

16M FPS JPEG snapshot

AVBR, QMAP, and CVBR)

Intelligent encoding mode

8-area OSD

Ultra-low delay encoding

Rockchip RV1106G2 Virtual Engine

Support 20+ IVE algorithms

Support rotation, x-mirror, y-

Support scale down/up

External Interface

MIPI interface with TCO and camera interface

and Ethernet PHY

One USB 2.0 Host/Device

Dual SDIO 3.0 interface for Wi-Fi and SD card

2-channel I2C, 12 PWM interfaces

I2C, SPI, and UART interfaces

Embedded Audio codec, RTC, POR

SDK

Linux-5.10 base SDK

Physical Specifications

Power Consumption

Typical power consumption of RV1106G2

760mW

Operating Voltage

0.9V core voltage

1.2V I/O voltage

1.8V DDR2/1.5(1.35)V DDR3(L)/1.2V DDR4

SDRAM interface voltage

Device Information

Package: QFN128

Body: 13.3mm x 13.3mm

Ball pitch: 0.35mm

AI Application

IPC

Block Diagram



