



RK3568

A high-performance and low-power quad-core application processor



Features

CPU

Quad-core ARM Cortex-A55 processor

GPU

ARM G52-2EE

OpenGL ES 1.1/2.0/3.0/3.1/3.2, Vulkan 1.1

OpenCL 2.1

NPU

1TOPs@INT8

Support INT8/INT16/FP16/BFP16

Support deep learning frameworks:

TensorFlow, Caffe, Tflite, Pytorch, Onnx,

Android NN, etc

Memory

32bit DDR4/3/3L/LPDDR4/4X/3

DDR4 and DDR3 support ECC

Display

Multiple display engine, max 3 screen support

HDMI2.0

eDP 1.3

Dual MIPI-DSI, combo with single LVDS

24bit RGB/BT1120

EBC interface

Multi-Media

4K H.265/H.264/VP9 video decoder

1080p@60fps H.264/H.265 video encoder

Video Input

8M Pixel ISP with HDR&3DNR

res. on 2.2 lanes MIPI CSI 1.4a2 and DVP

interface

Audio Interface

I2S0/I2S1 with 8 channels

I2S2/I2S3 with 2 channels

SPDIF0

PDMP with 8 channels

TDMP with 8 channels

VAD (Voice Activity Detection)

High Speed

Share three serial lanes

Dual USB 2.0 host

Dual RGMII interface

Security

ARM TrustZone, ARM VFPv4

Secure Video Path

Secure JTAG to debug

Secure boot

OTP

SHA256/SHA512/RSA, Crypto (AES/TDES/SM4/SM3/SM1)

Android 11 & 12

Device Information

FCRCAC361 & FCCSP6361

Ball pitch: 0.65mm

