



# RK3568

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



## Features

### CPU

Quad-core ARM Cortex-A55 processor

### GPU

ARM G52-2EE

OpenGL ES1.1/2.0/3.0/3.1/3.2, 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

Support eMMC 5.1, SFC

### 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

1\*4lanes or 2\*2lanes MIPI CSI-2 and DVP

interface

### Audio Interface

I2S0/I2S1 with 8 channels

I2S2/I2S3 with 2 channels

SPDIF0

BDMA with 8 channels

TDM0 with 8 channels

VAD (Voice Activity Detection)

### High Speed Interface

One USB 2.0 host, three SATA 3.0,

one USB 3.0 OTG, one PCIe 2.1, one QSGMII

Share three serdes lanes

Dual USB 2.0 host

PCIe 3.0, 1\*2 lanes or 2\*1 lane

Dual RGMII interface

### Security

ARM Trustzone security extension

Secure Video Path

Secure JTAG to debug

Secure boot

OTP

Full Crypto (AES/TDES/SM4/SM3/SHA256/SHA512/RSA)

### SDK

Linux4.19 & 5.10

Android11 & 12

### Device Information

Package: **FCRCAC36L & F66SP636L**

Body: 19mm x 19mm

Ball pitch: 0.65mm





- 
- 
- 

## Typical

