

# RK3566

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
- Support eMMC 5.1, SFC

### Display

- Single display engine
- 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
- 1\*4lanes or 2\*2lanes MIPI CSI-2 and DVP interface

### Audio Interface

- I2S0/I2S1 with 8 channels
- I2S2/I2S3 with 2 channels
- SPDIF0
- PDM0 with 8 channels
- TDM0 with 8 channels
- VAD (Voice Activity Detection)

### High Speed Interface

- One USB 3.0 Host, two Sata3.0, one PCIE2.1, Share two serdes lanes
- Dual USB 2.0 host and one USB 2.0 otg
- Single RGMII interface

### Security

- ARM Trustzone security extension
- Secure Video Path
- Secure JTAG to debug
- Secure boot
- OTP
- Crypto (AES/TDES/SM4/SM3/SHA256/SHA512 /RSA)

### SDK

- Linux4.19 & 5.10
- Android11 & 12

### Device Information

Package:

- FCCSP565L

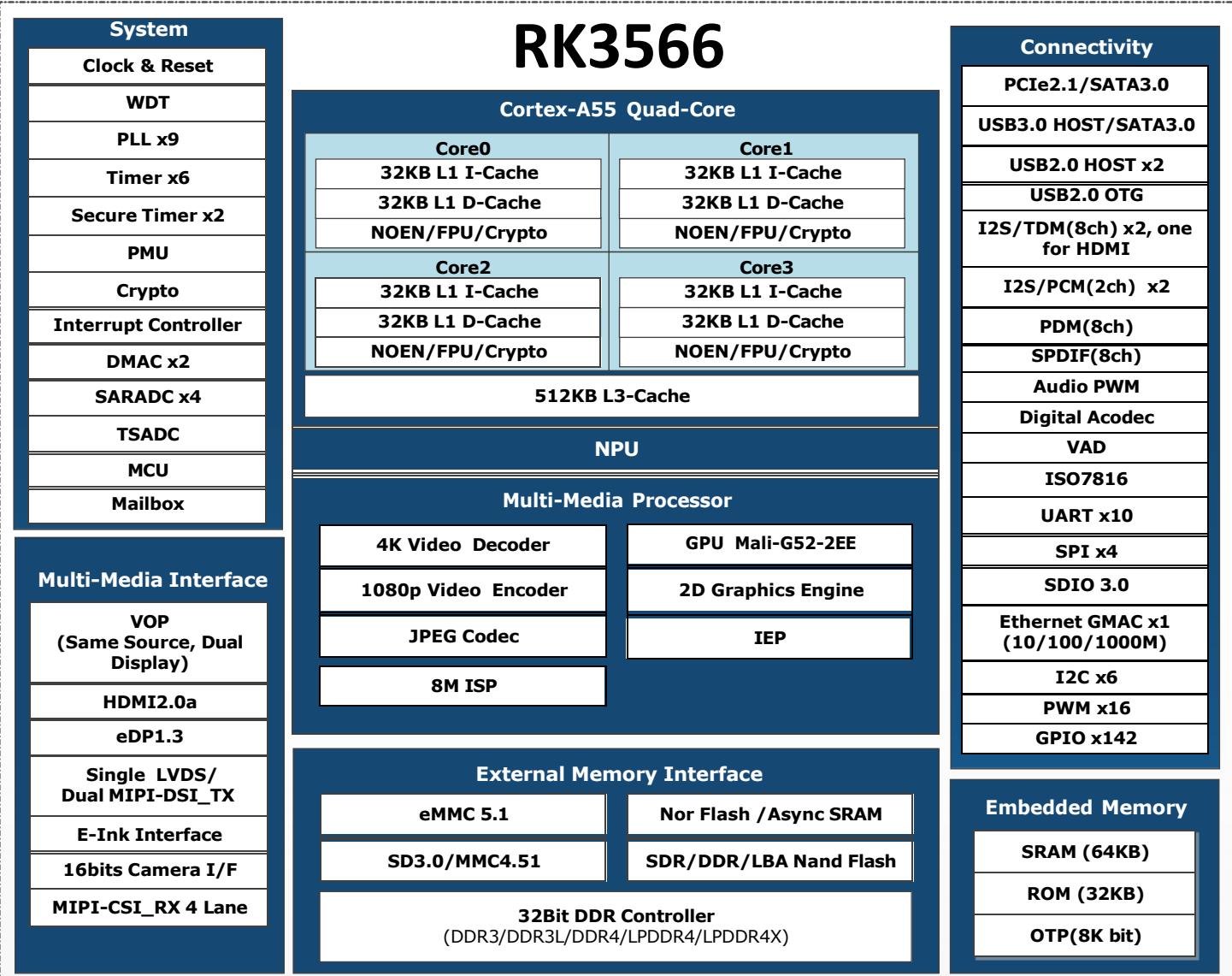
Body: 15.5mm x 14.4mm

Ball pitch: 0.4mm+0.6mm

- Tablet
- E-book Reader
- Dictionary Pen
- Desk Lamp
- Robot Vacuum
- .....



## Block Diagram



# RK3566 Target Applications

- Tablet
- E-book Reader
- Dictionary Pen
- Desk Lamp
- Robot Vacuum
- .....

## Typical Application Diagram

