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

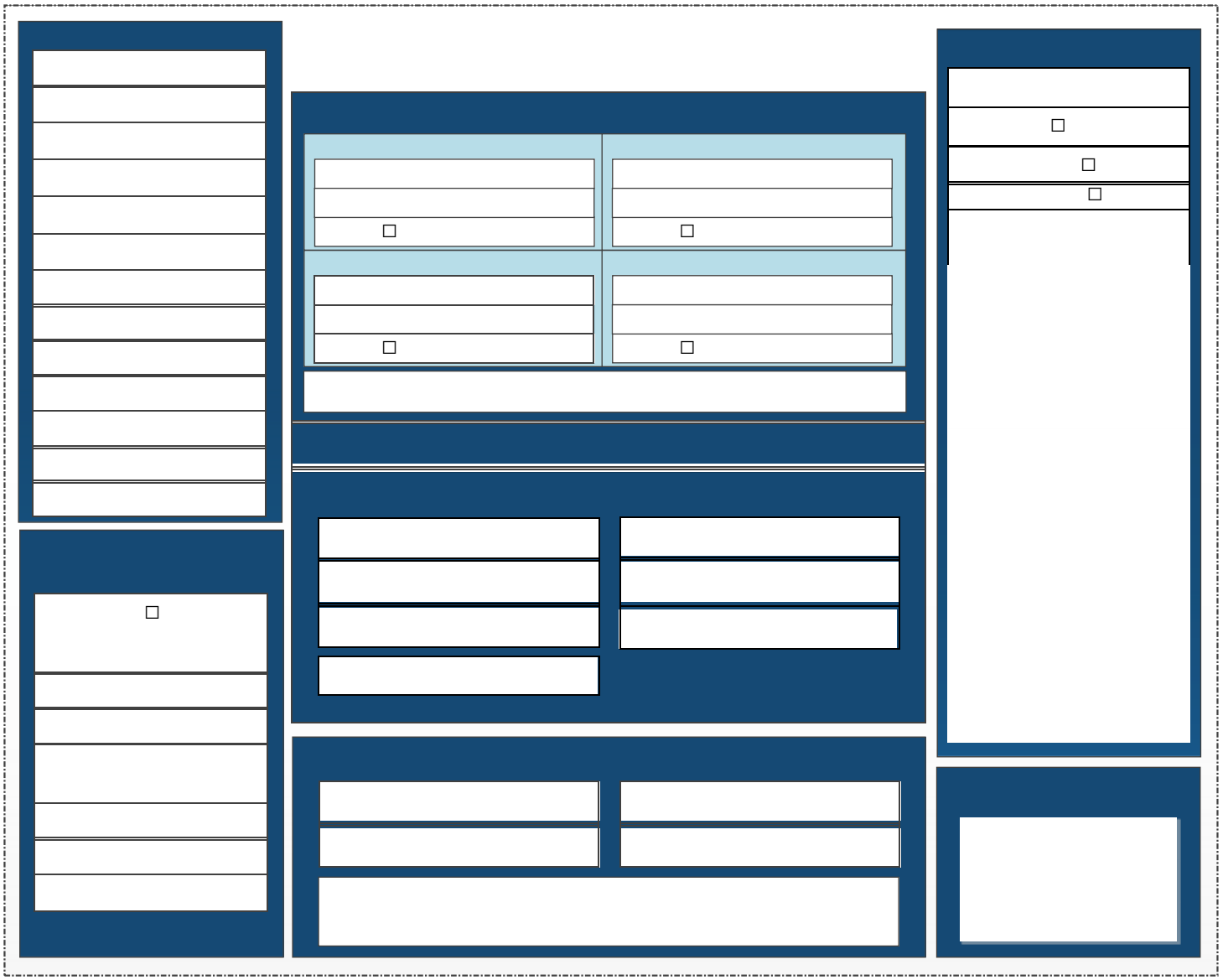
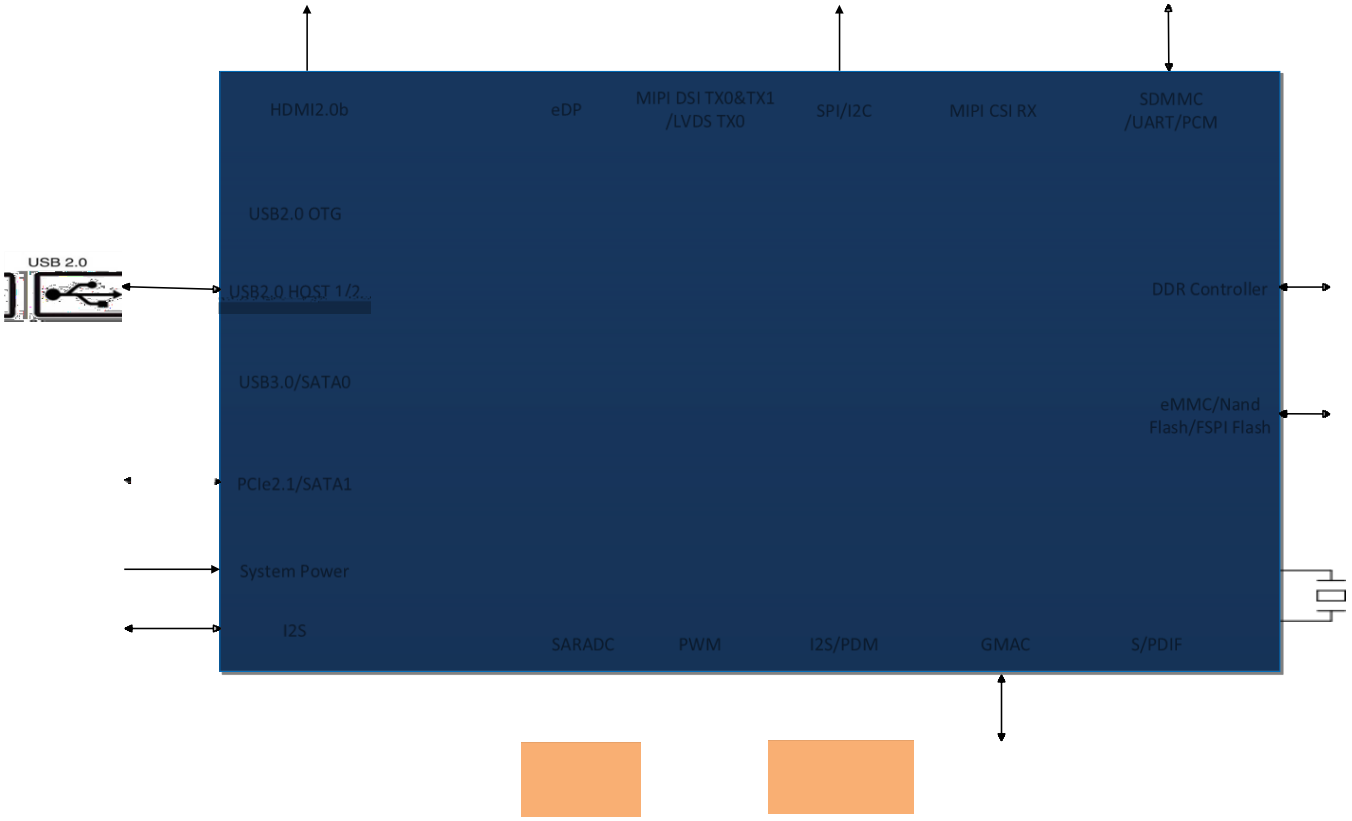
Device Information

Package: **FCCSP565L**

Body: 15.5mm x 14.4mm

Ball pitch: 0.4mm+0.6mm

Block Diagram



RK3566 Target Applications