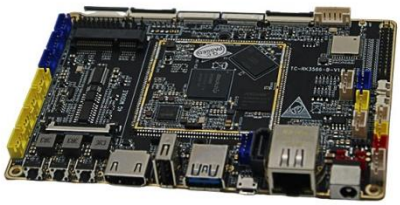
TC-RK3566 Stamp Hole Development Board



TC-RK3566 Stamp Hole Development board is a development board for Internet of Things applications. It adopts A55 architecture processor, G52 graphics processor, supports dual screen display, uses a new independent JPEG decoding processor, efficiently handles multi thumbnail analysis, and supports 1080p60fps H.264 and H 265 format encoding, supporting dynamic bit rate, frame rate, resolution adjustment and other functions, providing 8M30fps processing capacity, time-sharing multiplexing to meet the needs of dual cameras, supporting HDR function, making images clear under backlight or strong light

Applications include advertising machines, teaching machines, medical electronics, financial equipment, touch machines, AI electronic products, etc.

The following are the characteristics of the board.

High computing power and low power consumption - RK3566 quad core 64 bit Cortex-A55 is used, with the main frequency up to 1.8GHz. It supports 0.8T computing power to deeply optimize display architecture, system task management, power management, hardware design, etc., effectively reducing product power consumption and improving endurance

With its own interface - terminal partners do not need to add additional display

and control chips to achieve cost optimization. The maximum resolution can support 13.3-inch 2200x1650, meeting the design requirements of large screen.

HD display, fine image quality - HDMI 4k 60hz, 1080P60Hz output, LVDS 1920X1080 output, MIPI 1200X1080 output and USB camara.

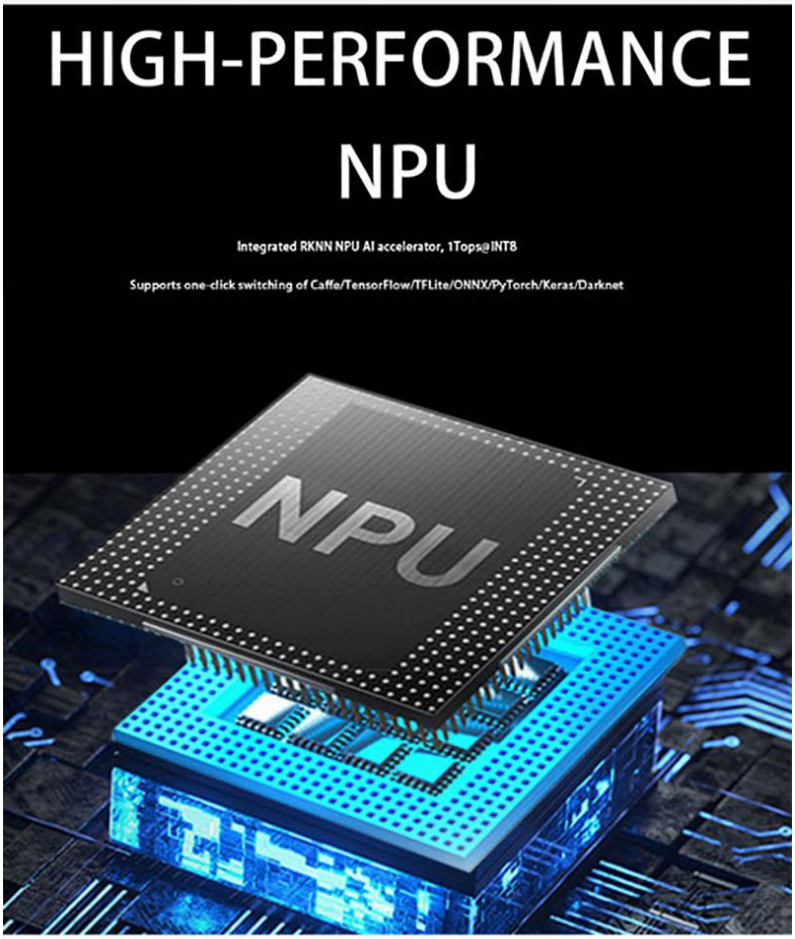
Complete display interface - support HDMI2.0 output, support dual channel MIPI DSI, drive 2.5K LCD, support Eink, direct drive ink screen, support eDp screen.

Rich interface expansion capability - support multiple peripheral high-speed interfaces, PCIE 2.1 1x1Lane, meet the expansion requirements of 4G/5G, WIFI6, NPU, etc. Multiple cameras support MIPI CSI 4Lanes, can be used independently and support 16 bit DVP interface, BT1120 input and VC mode

Strong network and wireless connection - support 100M/10M adaptive Ethernet, WIFI 2.4/5.0GHz and BT4.1/BT5.0 solutions.

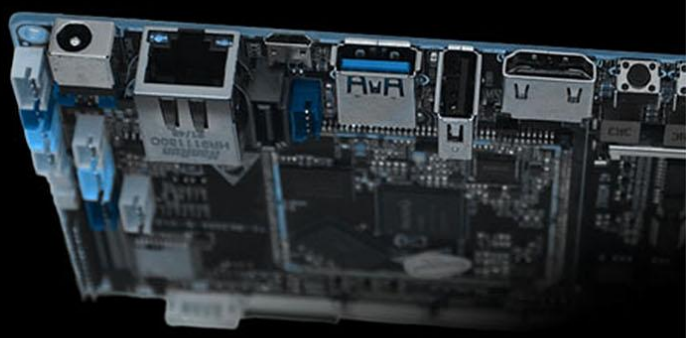

RK3566 QUAD-CORE
64-BIT PROCESSOR
RK3566 Quad-core 64-bit Cortex-A55 processor has frequency up to 1.8GHz.
With 22nm lithography process, it features low power consumption and high performance.
Rockchip
RK3566


Small and lightweight
Ultra-thin design, motherboard thickness of 13mm, can be applied to a variety of equipment with ultra-thin needs
Thin•Light•Simple


HIGH-PERFORMANCE
NPU
Integrated RKNN NPU AI accelerator, 1Tops@INT8
Supports one-click switching of Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
NPU

SATA 3.0 HIGH-SPEED INTERFACE

Expand the standard 7-core data cable interface of the ultra-large capacity onboard standard SATA hard disk, and support the expansion of the SATA hard disk, It has the advantages of high-speed read and write and mass storage.



Applications

Smart home device

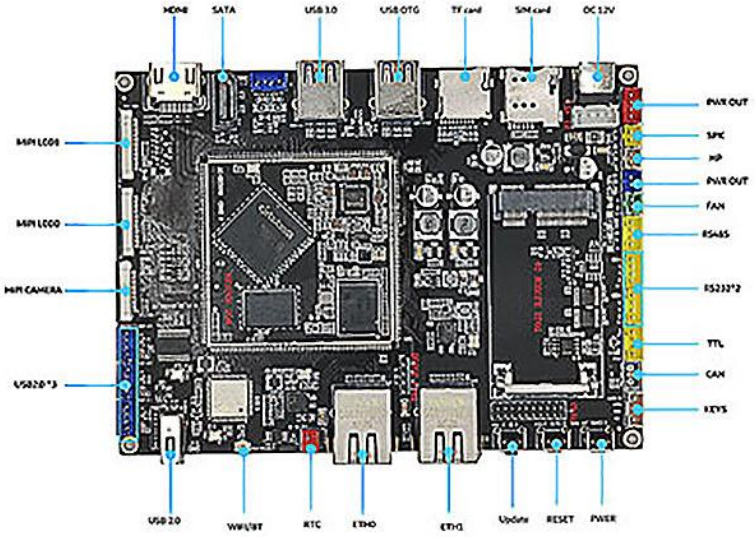
Healthcare kiosk

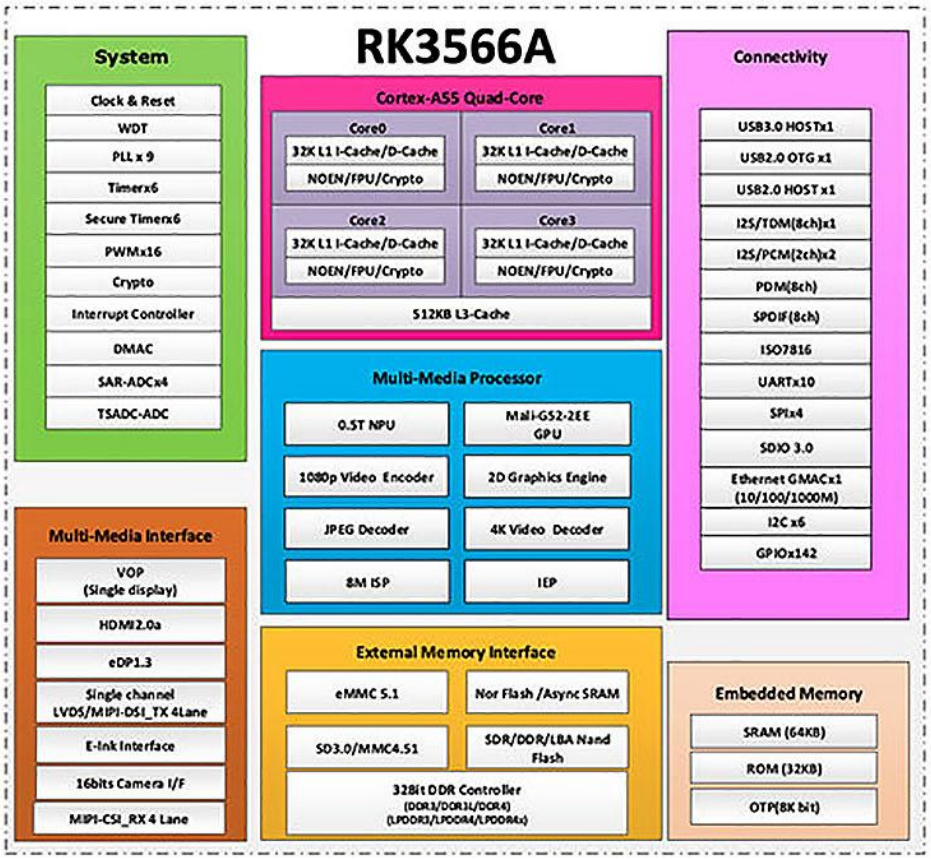
Fitness equipment

Vending machine

To form high-performance mainboard

The core board with SODIMM 260P interface can be combined with a backplane to form a complete high-performanceIndustrial mainboard delivering more powerful performance, which can be directly applied to various smart products to accelerate the product development process.





Abundant resources for customization

A complete SDK, development documents, examples, technology documents, tutorials and other resources are provided for users to make further customization.

Supports various operating systems

It supports Android, Ubuntu Buildroot+QT, OpenWRT, Debian and other operating systems, stable and reliable.


Thinkcore
RK3566
Stamp Hole
Development Board
Equipped with RK3566 quad-core 64-bit processor, and integrated with dual-core GPU
and high-efficiency NPU, the core board supports PCIe2.1and SATA3.0 interfaces for large hard disk
expansion and supports various operating systems. Backplane reference
design and other open resources are provided for users to make further customization.

RK3566

Powerful smart chip

ROCKCHIP RK3566 COTEX-A55 QUAD CORE 64 BIT