EC-R3328PC

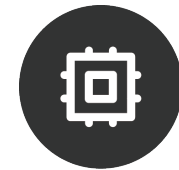**▌ Quad-Core 64-bit Mini Embedded Computer**

V1.2 2024-9-29

T-CHIP INTELLIGENCE TECHNOLOGY

Product features

RK3328 quad-core 64-bit processor

RK3328 quad-core 64-bit Cortex-A53 processor has frequency up to 1.5GHz – the efficiency is greatly improved. With 28nm lithography process, it features low power consumption and high performance.

Powerful graphics processing power

Built-in quad-core Mali-450 GPU which with powerful graphics processing capabilities, and supports OpenGL ES1.1/2.0, OpenVG1.1.

Powerful Hardware Decoding Capability

It supports 4K@60fps VP9/H.265/H.264 video decoding, and supports 1080P@60fps (VC-1, MPEG-1/2/4) multi-format video decoding, 1080P@30fps H.265/H.264 format video encoding.
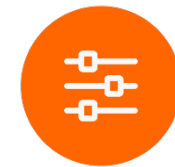
High-quality metal enclosure

Equipped with high-quality metal shell, efficient heat dissipation, dustproof and shockproof, the main unit size is 93.5mm× 82mm× 20mm, small and portable, and can be flexibly embedded in various smart devices.

Product features

Various systems and boot ways supported

It supports to upgrade to Android, Ubuntu, Buildroot + QT, Station OS and other systems, and supports to boot the system via TF card, U disk, EMMC, etc. Diverse supporting systems make entertainment, work, programming learning, creative development all easy.

A variety of interfaces

With HDMI2.0, Type-C, USB3.0, USB2.0, TF Card, AV and other interfaces, it can be directly used for external device control and expansion.

Open SDK

Open SDK, tutorials, technical materials and development tools to make development easier and more convenient.
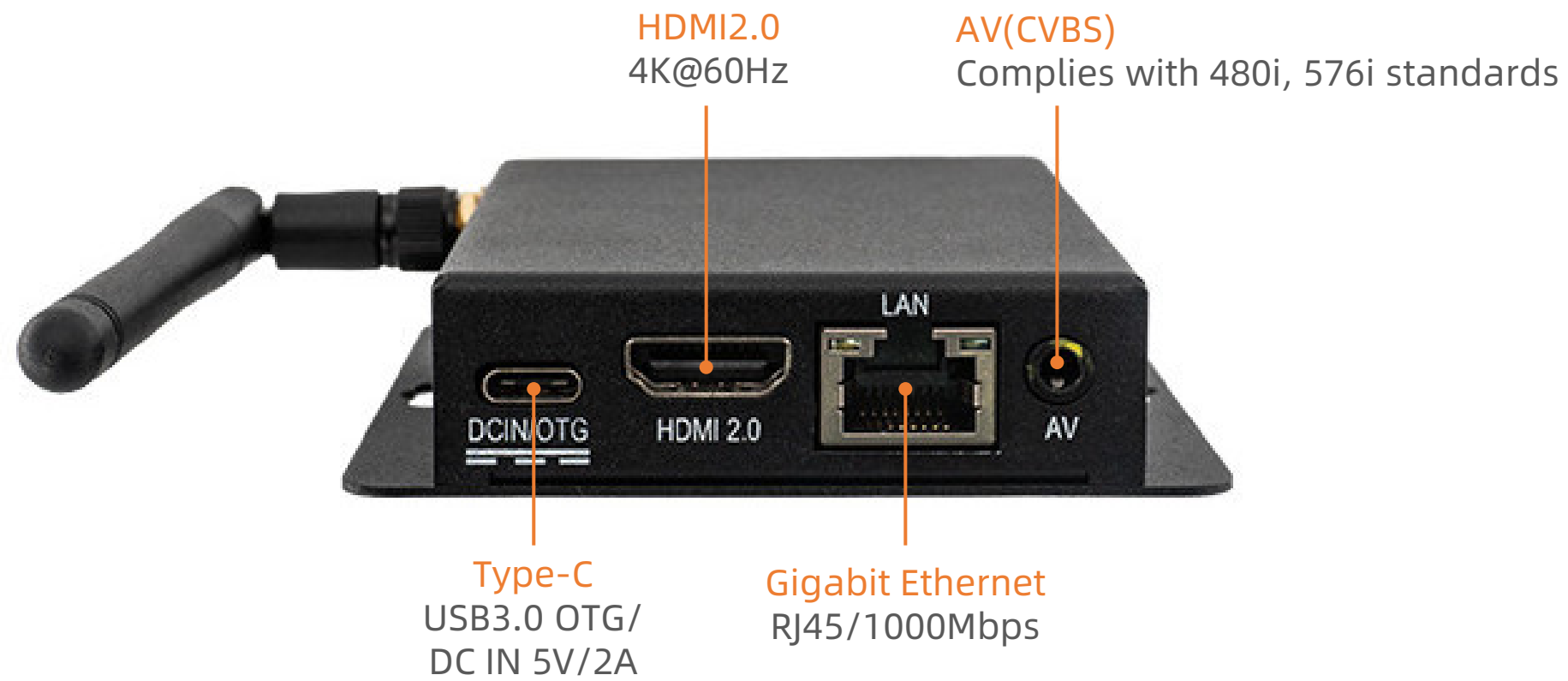
A wide range of applications

It is widely used in scenarios such as intelligent security, medical image processing, remote monitoring, digital billboards, robot control, face recognition, video conferencing, IoT gateways, and industrial control.
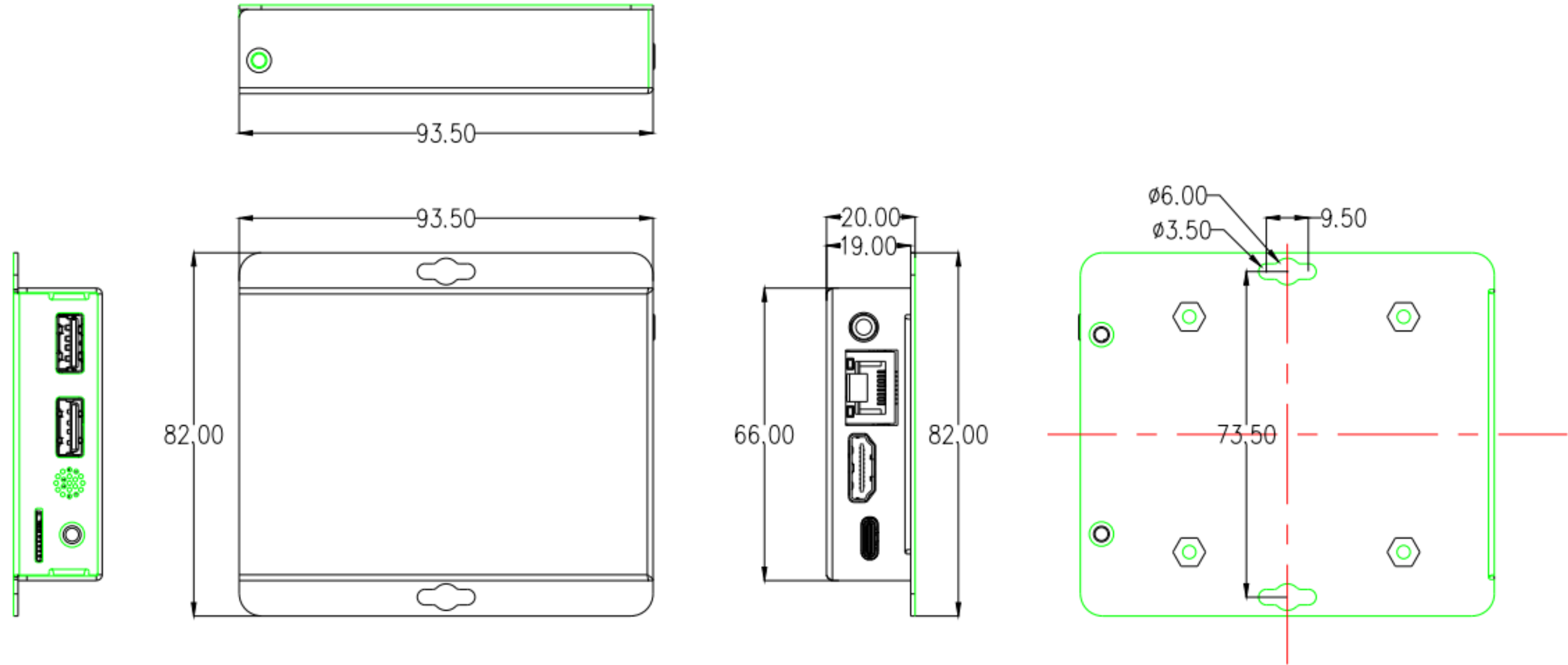
Specifications

Specifications		
Basic Specifications	SOC	Rockchip RK3328
	CPU	Quad-core 64-bit ARM®Cortex-A53, 28nm lithography process, frequency up to 1.5GHz
	GPU	ARM Mali-450 MP2 GPU , support OpenGL ES 1.1/2.0, OpenVG 1.1
	VPU	Video decoding: 4K@60fps H.265/H.264/VP9, 1080P@60fps VC-1, MPEG-1/2/4 Video encoding: 1080P@30fps H.265/H.264 Video Post Processors: de-interlacing, de-noising, edge/detail/color optimization
	RAM	1GB/2GB DDR3 (1GB/2GB/4GB optional)
	Storage	8GB/16GB eMMC5.1 (8GB/16GB/32GB/64GB/128GB optional)
	Storage Expansion	1 × TF Card
	OS	Android, Ubuntu, Linux+QT
	Power	DC 5V/2A (Power supply through Type-C port, voltage tolerance ± 5%)
	Power consumption	Normal: 1.5W(5V/300mA), Min: 0.015W(5V/3mA), Max: 5W(5V/1000mA)
	Weight	≈215g
	Size	93.5mm × 82mm × 20mm
	Environment	Operating Temperature: -20℃ ~ 60℃, Storage Temperature: -20℃ ~ 70℃, Storage Humidity: 10% ~ 90%RH(non-condensing)
Interface Specifications	Internet	Ethernet: 1 × RJ45(1000Mbps) WiFi: Support 2.4GHz Single-band WiFi, 802.11 a/b/g/n protocol, support Bluetooth 4.2
	Video output	1 × HDMI2.0(4K@60Hz, support HDCP 1.4/2.2) 1 × AV(CVBS output, 480i, 576i compliant)
	Audio output	1 × HDMI audio output 1 × AV audio output
	USB	1 × USB3.0(Max: 1000mA), 1 × USB2.0(Max: 500mA), 1 × Type-C(USB3.0 OTG/DC 5V/2A)
	IR	1 × IR(IR receiver, support IR remote control function)

Interface description

HDMI2.0
4K@60Hz

AV(CVBS)
Complies with 480i, 576i standards

Power
button

IR

WiFi antenna

LAN

HDMI 2.0

DCIN/OTG

AV

USB3.0

USB2.0

TF CARD

Type-C
USB3.0 OTG/
DC IN 5V/2A

Gigabit Ethernet
RJ45/1000Mbps

USB3.0
Max: 1000mA

USB2.0
Max: 500mA

TF Card

Dimension

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