

Specifications

Basic Specifications	
SOC	RockChip RK3588
CPU	8-core 64-bit (4×Cortex-A76+4×Cortex-A55) , 8nm lithography process, frequency up to 2.4GHz
GPU	ARM Mali-G610 MP4 quad-core GPU Supports OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
NPU	NPU computing power is up to 6 TOPS, Supports INT4/INT8/INT16 mixed operation, Supports framework switching of TensorFlow / MXNet / PyTorch / Caffe / etc.
ISP	Integrated 48MP ISP with HDR&3DNR
VPU	Video decoding: 8K@60fps H.265/VP9/AVS2 8K@30fps H.264 AVC/MVC 4K@60fps AV1 1080P@60fps MPEG-2/-1/VC-1/VP8 Video encoding: 8K@30fps encoding, Supports H.265 / H.264 * Achieves up to 32-channel 1080P@30fps decoding and 16-channel 1080P@30fps encoding
RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
Storage	16GB/32GB/64GB/128GB eMMC
Hardware Specifications	
Wireless	2.4GHz/5GHz dual-band WiFi6, Bluetooth 5.0, supports 5G/4G LTE expansion

Ethernet	1 × GbE (RJ45)
Display	Video output: 2 × HDMI2.1 (8K@60fps or 4K@120fps) Video input: 1 × HDMI-IN (4K@60fps) , Supports HDCP 2.3 * Supports multi-channel 8K video output and 4K video input, up to four-screen output with different
Audio	Audio output: 1 × Speaker output 2 × HDMI audio output Audio input: 1 × HDMI audio input
USB	1 × USB3.0 (Limit 1A) 1 × USB-C (USB3.0) (Limit 2A) 2 × USB2.0 (3 of them are pins) (Limit 500mA)
Power	Various power supply ways: DC12V input (DC5.5 × 2.1mm) POE 48V power input (up to 60W)
OS/Software	
OS	Android: Android 12.0 Linux: Ubuntu Desktop, Ubuntu Server, Debian11, Buildroot, RTLinux, Kylin Linux, UOS * Supports UEFI Boot
General	
Size	116.4*116.4*45.3mm
Package Size	189*125*78mm
Heat Dissipation	Heat sink installation hole pitch: 45mm

Idle: $\approx 1.35\text{W}$ (12V/110mA) Power Consumption Typical: $\approx 4.8\text{W}$ (12V/400mA) Max: $\approx 12\text{W}$ (12V/1000mA)	
Environment	Operating Temperature: -20°C - 60°C , Storage Temperature: -20°C - 70°C , Storage Humidity: 10%-80%

