

# Specifications

Basic Specifications	
SOC	RockChip RK3588
CPU	Octa-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 Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS
NPU	NPU computing power up to 6 TOPS Support INT4/INT8/INT16 mixed operation, Support framework switching of TensorFlow / MXNet / PyTorch / Caffe
ISP	Integrated with 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, support H.265 / H.264  *Up to 32-channel 1080P@30fps decoding and 16-channel 1080P@30fps encoding can be achieved.
RAM	4GB/8GB/16GB 64bit LPDDR4/LPDDR4x/LPDDR5 (Up to 32GB optional)
Storage	16GB/32GB/64GB/128GB eMMC
Storage Expansion	1×M.2 slot for PCIe3.0 NVMe SSD (2242/2260/2280) 1×TF Card Slot
Hardware Specifications	
Network	1×1000Mbps Ethernet
Wireless	2.4GHz/5GHz dual-band WiFi 6 (802.11a/b/g/n/ac/ax) Bluetooth 5.0

Display	<p>1×HDMI2.1 (8K@60fps)</p> <p>1×HDMI2.0 (4K@60fps)</p> <p>1×DP1.4 video output</p> <p>1×HDMI IN video input</p> <p>* Support dual screen output with different displays (HDMI2.1 (8K)+DP1.4 (4K) )</p>
USB	2×USB3.0、1×USB-C (DP1.4)
Power	DC12V ( DC 5.5*2.1mm )
Expansion Interface	<p>Standard 164P (PCIe 16X) edge connector:</p> <p>5G/4G LTE, Gigabit Ethernet, MIPI-CSI, MIPI-DSI, VGA,</p> <p>DP1.4, USB3.0, I2C, PCIe2.0, UART, PWM, CAN, I2C and SPDIF</p> <p>PH2.0 pin header:</p> <p>UART, ADC, CAN, Debug, SPI, I2C and LINEOUT</p>
<b>OS/Software</b>	
System	<p>Support Android 12.0, Ubuntu Desktop and Server, Debian11, Buildroot , Kylin and UOS;</p> <p>Support RTLinux with excellent real-time performance</p>
<b>General</b>	
Dimension	118mm × 111.6mm
Weight	≈0.15kg
Heat Dissipation	The installation hole pitch for heat sink: 45mm. Heat sink recommended
Power Consumption	<p>Idle: ≈1.2W (12V/100mA)</p> <p>Typical: ≈8.04W (12V/670mA)</p> <p>Max: ≈14.4W (12V/1200mA)</p>
Environment	<p>Operating Temperature: -20°C- 60°C</p> <p>Storage Temperature: -20°C- 70°C</p> <p>Storage Humidity: 10% ~ 80 %</p>