

Specifications

Basic Specifications

SOC	SOPHON BM1684
CPU	Integrated high-performance ARM A53, 12nm lithography process, clock speed up to 2.3GHz
TPU	Built-in tensor computing module TPU, computing power up to: 17.6T (INT8) / 2.2T (FP32) / 35.2 T (INT8, enable winograd) TPU contains 64 NPU arithmetic units, each NPU contains 16 EU arithmetic units, 1024 EU in total Support mainstream programming frameworks, such as TensorFlow / Caffe / PyTorch / Paddle / ONNX / MXNet / Tengine / DarkNet
VPU	Up to 32-channel H.265/H.264 1080p@30fps video decoding 1080p@50fps video encoding MJPEG image encoding and decoding up to 1080P@480fps
RAM	6GB/12GB LPDDR4/LPDDR4X
Storage	32GB/64GB/128GB eMMC
Storage Expansion	M.2 SATA3.0 SSD (2242) ×1 TFcard slot ×1

Hardware Specifications

Ethernet	1000Mbps Ethernet ×2
Wireless	2.4GHz/5GHz dual-band WiFi, 802.11a/b/g/n/ac expanded with 4G LTE (Mini PCIe interface), 5G (M.2)
Video Output	HDMI1.4 (1080p@30fps) ×1
Audio Output	HDMI1.4 audio output×1
SATA	M.2 SATA3.0 (expanded with 2242 SATA SSD) ×1
USB	USB3.0 (current limit: 1A) ×2 USB2.0 (current limit: 500mA) ×2
Power	DC12V (DC5.5×2.5mm)
Other Interfaces	RS232×1, RS485×1

OS/Software

OS	Support Linux
Firmware Upgrade	Upgrade firmwares through TF card

General

Size	210×130×44.5mm
Environment	Operating Temperature: -20°C ~ 60°C Storage Temperature: -20°C ~ 70°C Storage Humidity: 40% ~ 70 %