



6TOPS AI Computer

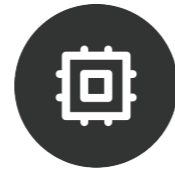
- | EC-A3588L(Commercial)
- | EC-A3588JL(Industrial)



V1.1 2024-8-12

T-CHIP INTELLIGENCE TECHNOLOGY

Product features



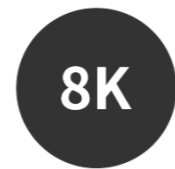
A new generation of AIoT chip RK3588

It adopts a new generation of flagship AIoT chip RK3588
It is equipped with an octa-core 64-bit CPU and adopts an 8nm LP process
The main frequency is up to 2.4GHz



6TOPS powerful computing power NPU

Built-in powerful NPU, computing power up to 6TOPS, support INT4/INT8/INT16 mixed computing, can realize network model conversion based on TensorFlow/MXNet/PyTorch /Caffe and other series of frameworks, with strong compatibility, to meet the edge computing needs of most terminal devices.



8K H.265/VP9 video decoding

It supports 8K@60fps H.265/VP9 video decoding and 8K@30fps H.265/H.264 video encoding, supporting simultaneous encoding and decoding, up to 32 channels of 1080P@30fps decoding and 16 channels of 1080P@30fps encoding.



Strong network communication capabilities

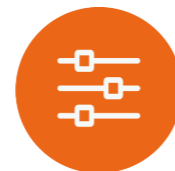
It supports Gigabit Ethernet, 2.4GHz/5GHz dual-band WiFi6 (M.2 interface), Bluetooth 5.2, and expandable 4G LTE.

Product features



All-aluminum alloy shell, efficient passive heat dissipation

Equipped with industrial-grade all-aluminum alloy shell, fanless and efficient passive heat dissipation, 7*24 hours of stable operation. It supports wall mounting, which can be flexibly fixed on the wall and industrial automation machinery to save space.



Abundant expansion interfaces

It has HDMI2.0, HDMI2.1, HDMI-IN, SATA3.0, PCIe2.0, USB3.0, USB2.0, Type-C (DP1.4), 3.5mm audio interface and other expansion interfaces, which can easily connect various external devices.



Wide range of application scenarios

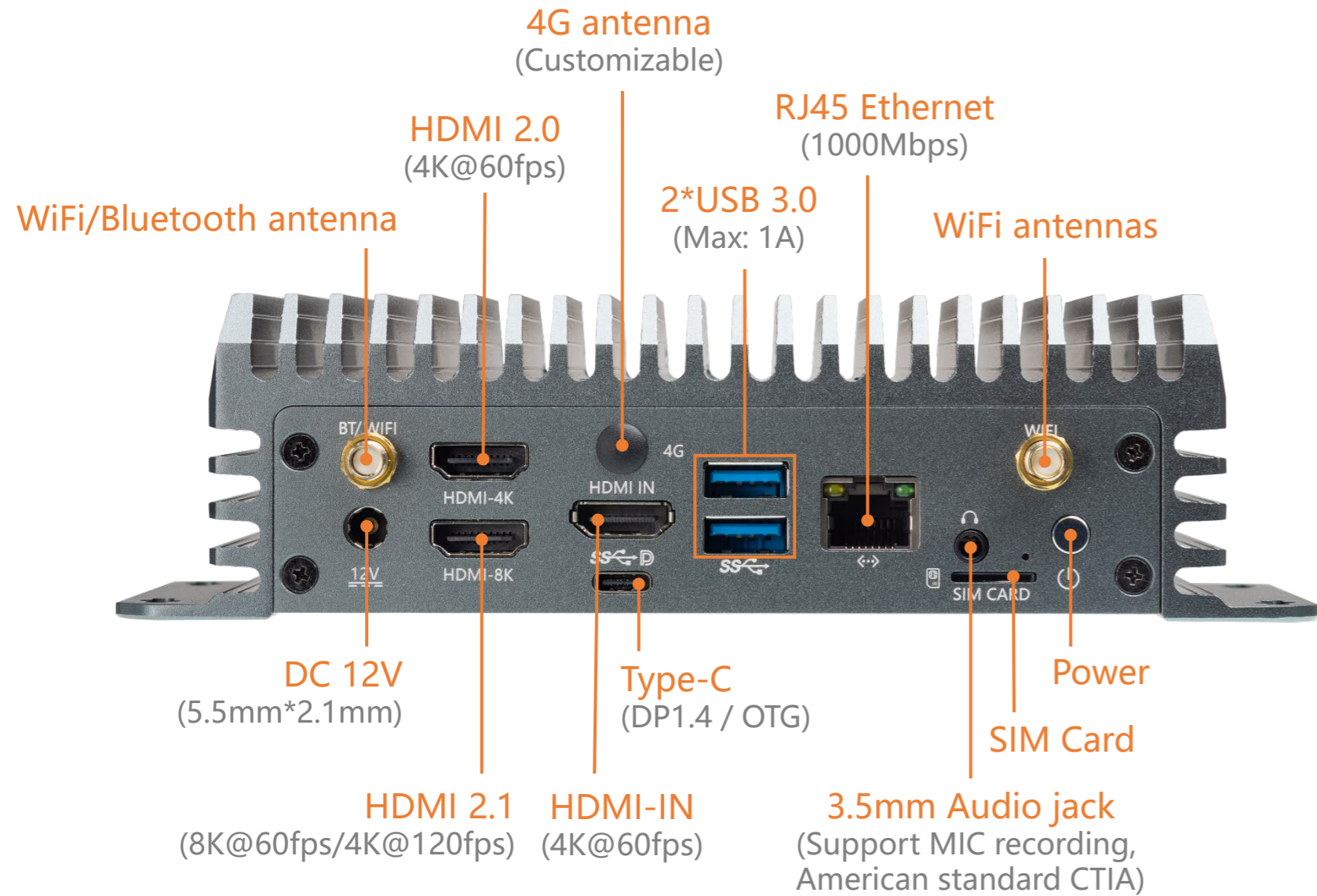
It is widely used in ARM PC, edge computing, cloud terminals, cloud servers, industrial control, smart display terminals and other fields.

Specifications

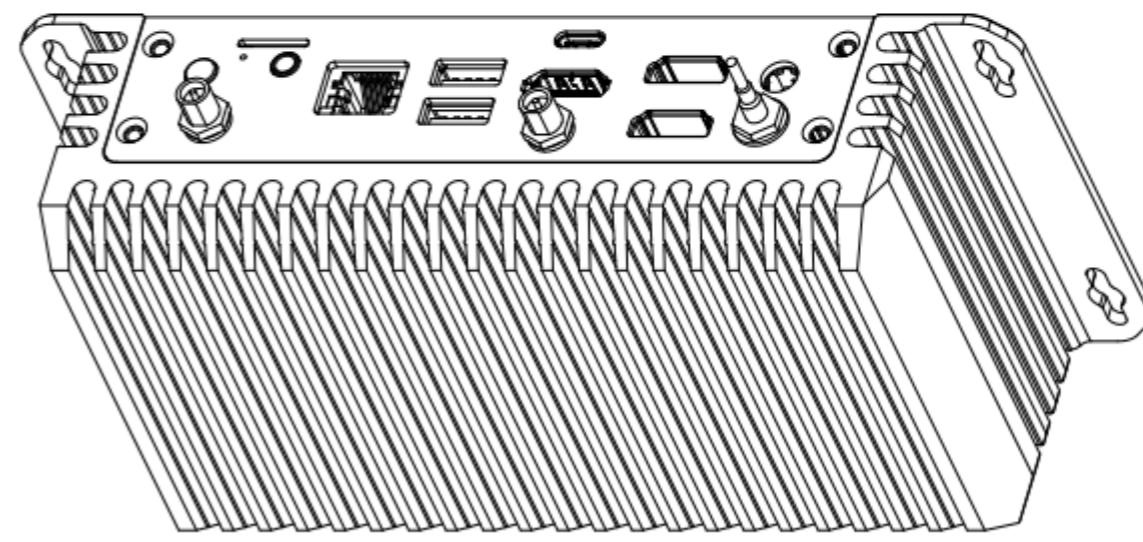
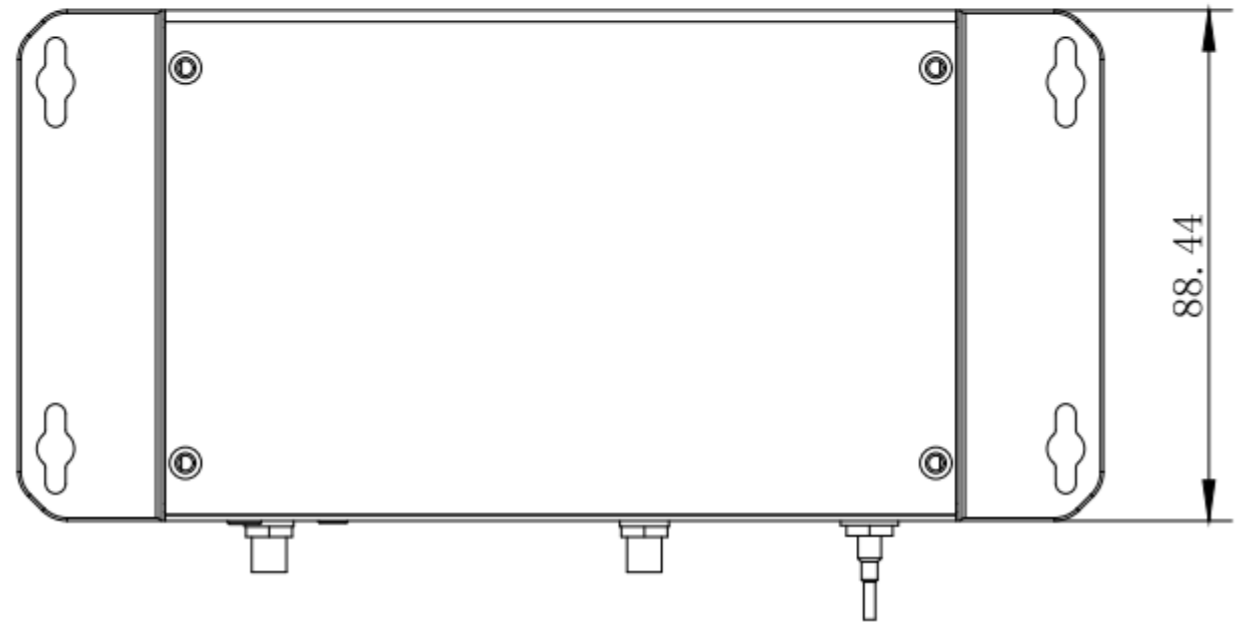
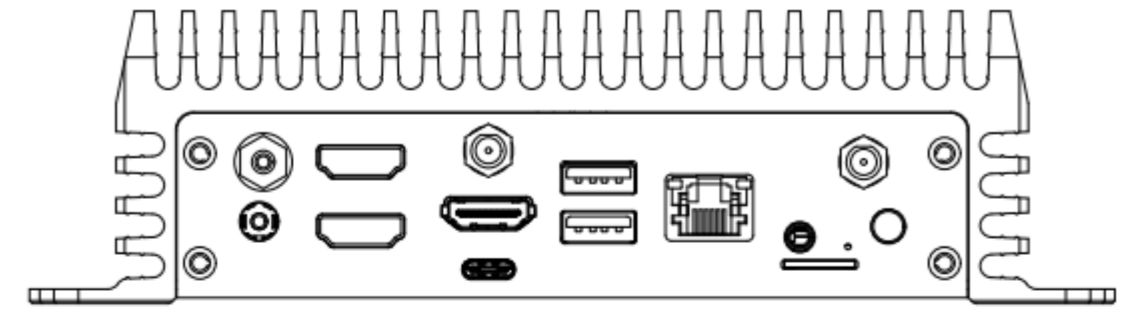
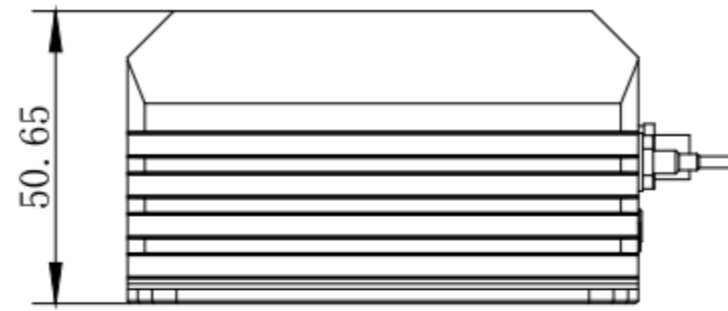
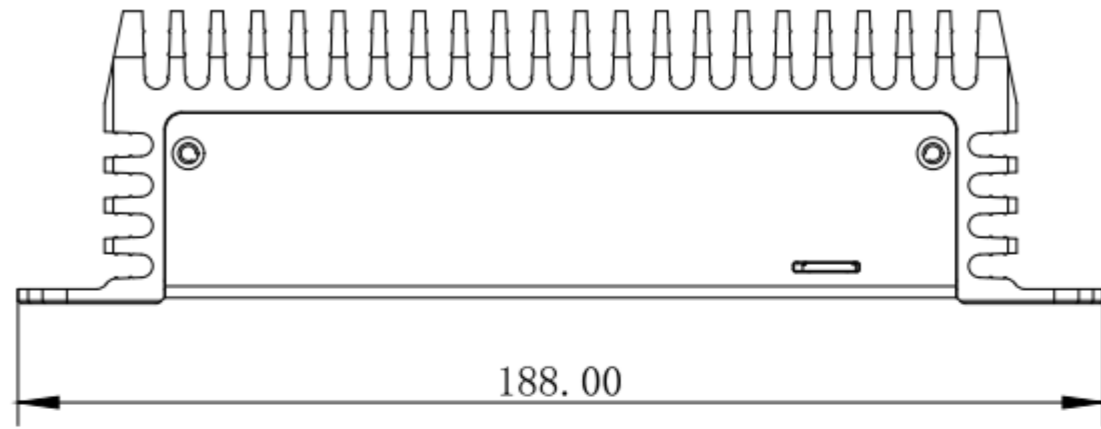


		EC-A3588L(Commercial)	EC-A3588JL(Industrial)
Basic Specifications	CPU	RK3588 Octa-core 64-bit (4*Cortex-A76+4*Cortex-A55), up to 2.4GHz	RK3588J Octa-core 64-bit(4*Cortex-A76+4*Cortex-A55), up to 1.6GHz
	GPU	ARM Mali-G610 MP4 Quad-core GPU, support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS	
	NPU	The computing power is up to 6TOPS (INT8), supports INT4/INT8/INT16 mixed computing, and can realize network model conversion based on TensorFlow/MXNet/PyTorch/Caffe and other frameworks	
	ISP	Integrated 48MP ISP with HDR & 3DNR	
	VPU	Decoding: 8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC, 4K@60fps AV1, 1080P@60fps MPEG-2/-1/VC-1/VP8 Encoding: 8K@30fps H.265/H.264	
	RAM	LPDDR4/LPDDR4x (4GB/8GB/16GB optional, up to 32GB)	LPDDR4/LPDDR4x(Industrial) (4GB/8GB/16GB optional, up to 32GB)
	Storage	eMMC (32GB/64GB/128GB/256GB optional)	
	Expand storage	Expandable SATA 3.0 / PCIe 2.0 2242 SSD (M.2) (inside the computer), 1 * TF Card	
	Power	DC 12V (5.5mm*2.1mm, voltage tolerance ± 5%)	
	Power consumption	Max: 13.2W(12V/1100mA) Normal: 2.4W(12V/200mA) Min: 0.024W(12V/2mA)	Max: 9.6W(12V/800mA) Normal: 2.4W(12V/200mA) Min: 0W(12V/0mA)
	OS	Android and Linux OS	
	Size	188.0mm * 88.44 mm * 50.65mm	
	Weight	≈ 835g	
	Environment	Operating Temperature: -20°C ~ 60°C Storage Humidity: 10% ~ 90%RH (non-condensing)	Operating temperature:-40°C ~ 85°C Storage humidity:10% ~ 90%RH(non-condensing)
Interface Specifications	Internet	Gigabit Ethernet: 1 * 1000Mbps Ethernet (RJ45) WiFi/BT: The WiFi/BT module can be expanded through the M.2 E-KEY (2230) interface (inside the computer), supporting WiFi6 and BT5.2 4G network: Expandable 4G LTE via Mini PCIe (inside the computer) 5G network: 5G can be expanded via USB3.0	
	Video input	1 * HDMI-IN (4K@60fps), support HDCP 2.3	
	Video output	1 * HDMI2.1 (8K@60fps or 4K@120fps) 1 * HDMI2.0 (4K@60fps) 1 * DP1.4 (Max: 8K@30fps, output via Type-C)	
	Audio output	1 * 3.5mm Audio jack (support MIC recording, American standard CTIA)	
	USB	2 * USB3.0 (Max: 1A)	
	Other interfaces	1 * Type-C (DP1.4 / OTG), 1 * SIM Card	

Interface description



Dimension





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