



Octa-Core 8K AI Embedded Computer

- | EC-A3588Q(Commercial)
- | EC-A3588JQ(Industrial)
- | EC-A3588MQ(Automotive)

V1.1 2024-2-18

T-CHIP INTELLIGENCE TECHNOLOGY





Product features



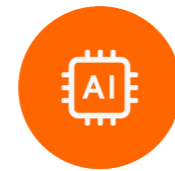
8-Core 64bit processor

8-Core 64bit processor RK3588
up to 2.4GHz
8nm lithography process



Super-large 32GB RAM

Up to 32GB RAM
Support LPDDR4/LPDDR4x/LPDDR5



8K H.265 / 6TOPS NPU

OpenGL ES3.2/2.0, Vulkan1.1
8K@60fps H.265/VP9 Decoding
8K@30fps H.265/H.264 Encoding
6TOPS NPU computing power



Network communication

Dual Gigabit Ethernet (1000Mbps)
2.4G/5G dual-band WiFi6,
Bluetooth5.0
5G/4G LTE expansion supported



Operating systems

Android and Linux OS
Ubuntu Desktop and Server
Debian11 and Buildroot、RTLinux



A variety of interfaces

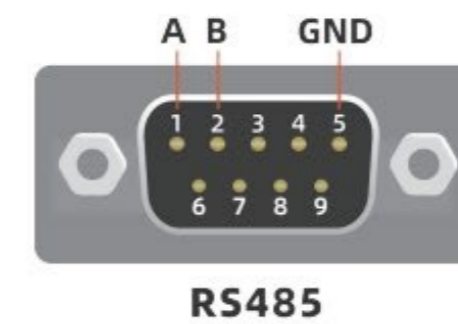
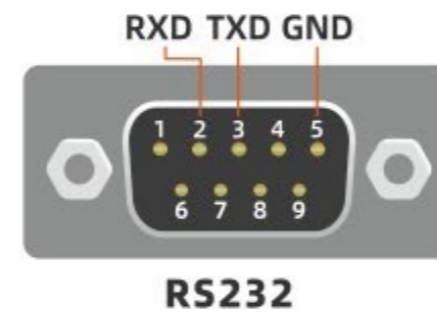
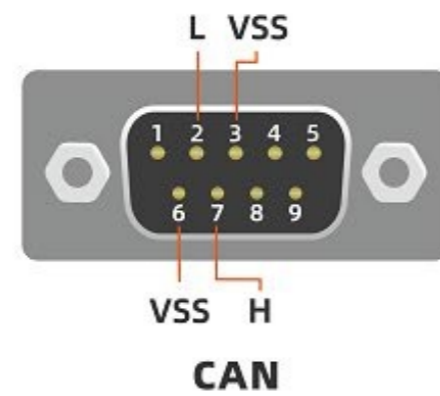
PCIe3.0、SATA3.0、RS485、RS232、CAN、MIPI-CSI、MIPI-DSI、USB3.0、USB2.0、LINE-IN、I2C、SPI

Specifications

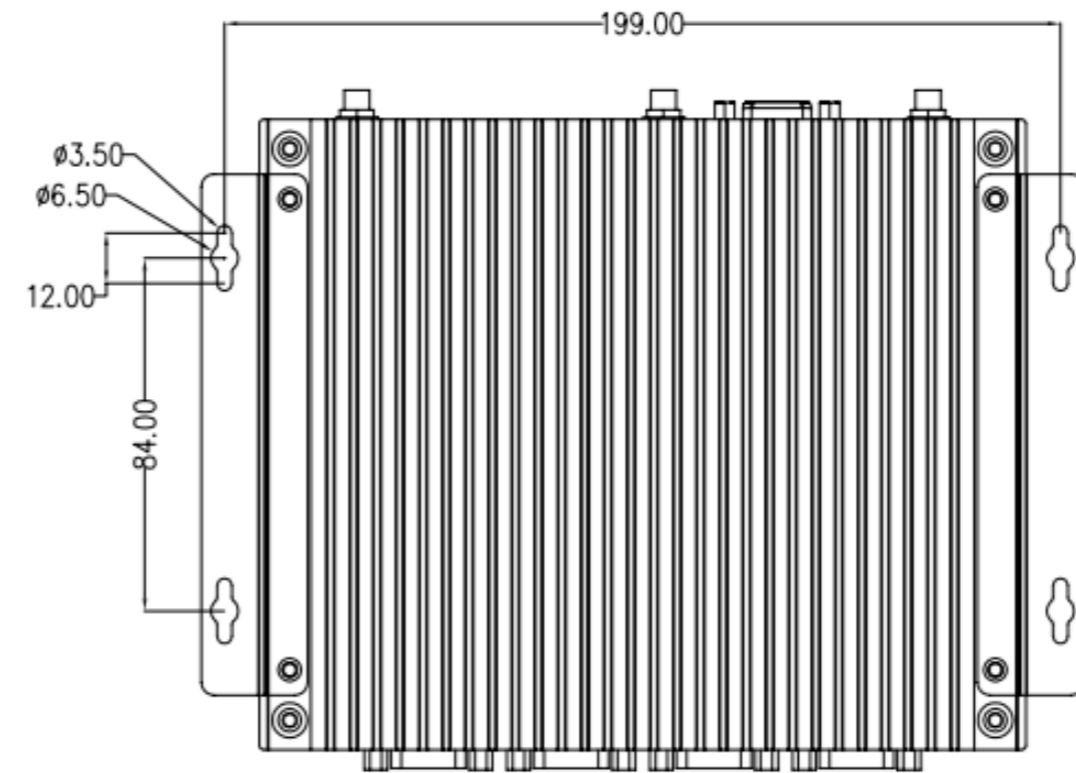
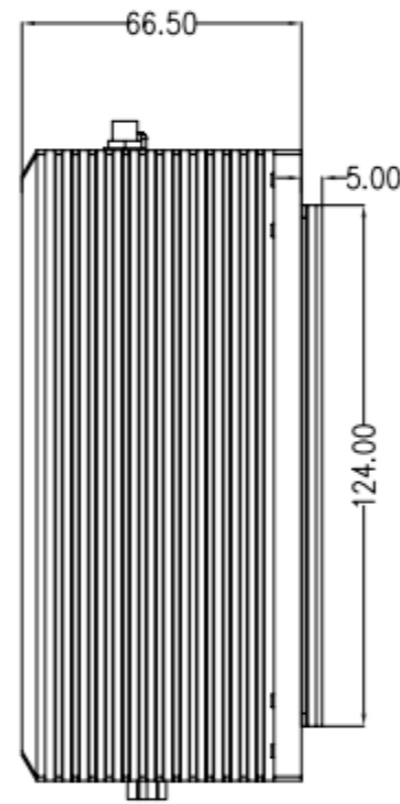
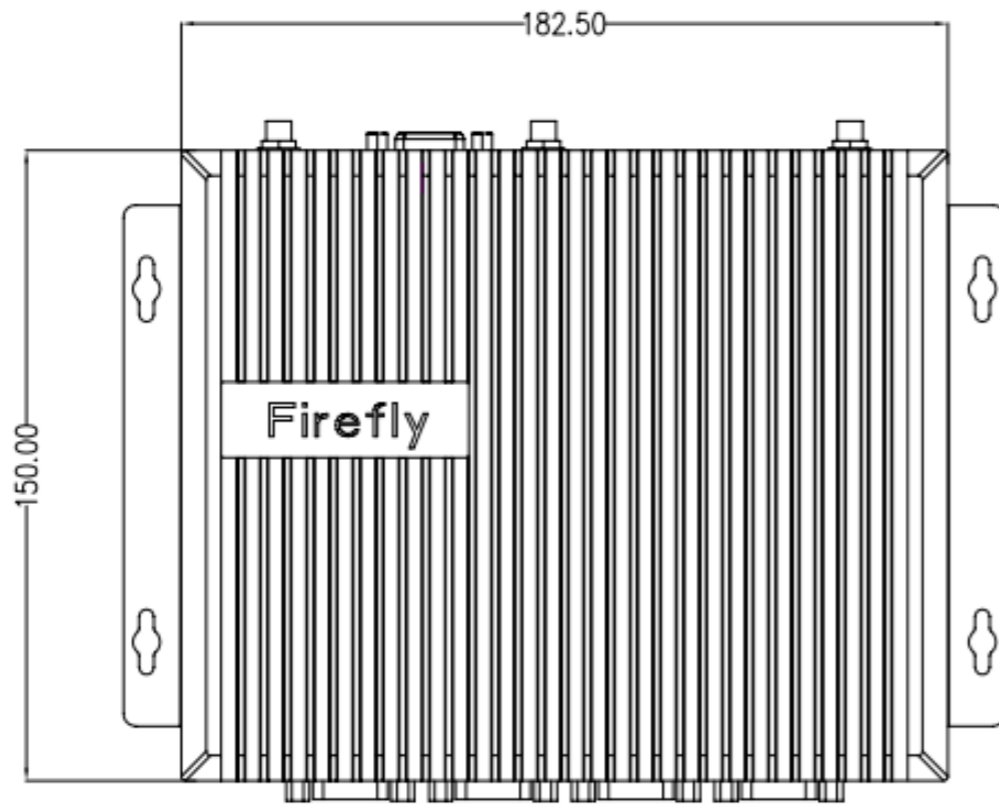
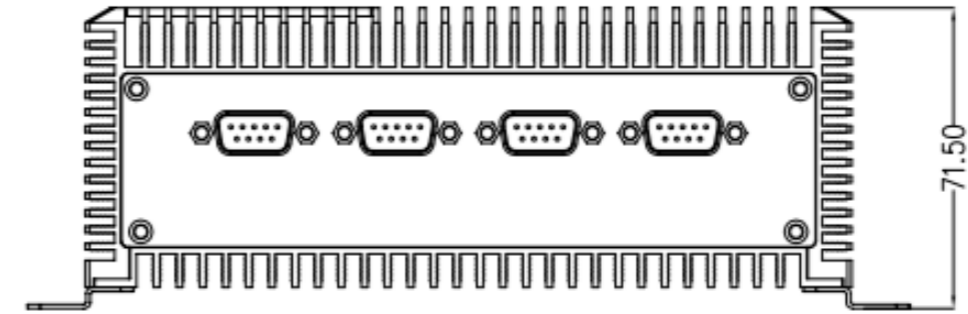
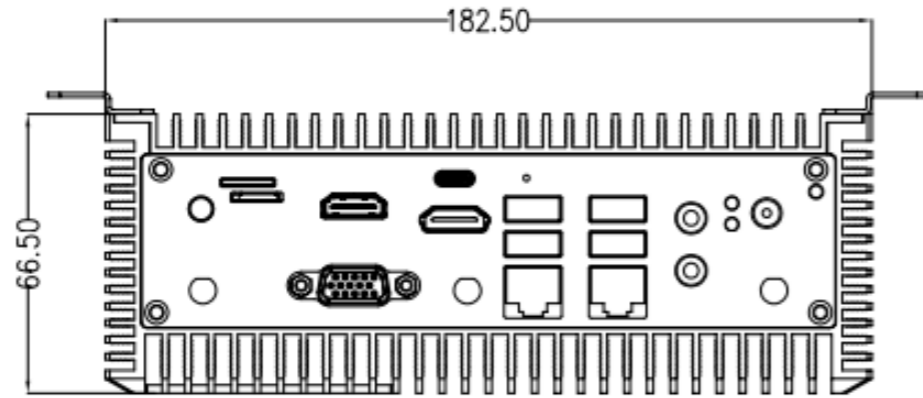


		EC-A3588Q(Commercial)	EC-A3588JQ(Industrial)	EC-A3588MQ(Automotive)
Basic Specifications	CPU	RK3588 Octa-core 64-bit (4*Cortex-A76+4*Cortex-A55) Up to 2.4GHz	RK3588J Octa-core 64-bit (4*Cortex-A76+4*Cortex-A55) Up to 1.6GHz	RK3588M Octa-core 64-bit (4*Cortex-A76+4*Cortex-A55) Up to 2.2GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS		
	NPU	Up to 6 TOPs (INT8) Support INT4/INT8/INT16 mixed operations Support framework switching of TensorFlow / MXNet / PyTorch / Caffe		
	ISP	48MP ISP with HDR & 3DNR		
	VPU	Hardware decoding: 8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC, 4K@60fps AV1, 1080P@60fps MPEG-2/-1/VC-1/VP8 Hardware encoding: 8K@30fps H.265 / H.264		
	RAM	LPDDR4/LPDDR4x/LPDDR5 (4GB/8GB/16GB, up to 32GB)	LPDDR4/LPDDR4x/LPDDR5 (industrial) (4GB/8GB/16GB, up to 32GB)	LPDDR4/LPDDR4x/LPDDR5 (4GB/8GB/16GB, up to 32GB)
	Storage	eMMC (16GB/32GB/64GB/128GB optional)		
	Storage Expansion	1 * M.2 SATA 3.0 SSD (2242), 1*TF Card Slot		
	Power	DC 9-24V		
	OS	Android and Linux OS Support Kernel-based Virtual Machine (KVM) and Docker container technology Run Android, Ubuntu, Debian, and Linux simultaneously, achieve "One Screen for One OS" display, and enable cross-domain integration in smart vehicles		
	Size	182.5mm * 150.0mm * 66.5mm		
	Weight	≈ 1.77kg		
	Environment	Operating temperature: -20°C ~ 60°C Operating humidity: 10% ~ 90%RH (non-condensing)	Operating temperature: -40°C ~ 85°C Operating humidity: 10% ~ 90%RH (non-condensing)	Operating temperature: -40°C ~ 85°C Operating humidity: 10% ~ 90%RH (non-condensing)
Interface Specifications	Ethernet	2 * 1000Mbps Ethernet (RJ45)		
	Wireless Network	2.4 GHz/5 GHz dual-band WiFi 6 (802.11a/b/g/n/ac/ax), Bluetooth 5.0, 5G/4G LTE expansion		
	Video Input	1 * HDMI-IN (4K@60fps) Support HDCP 2.3		
	Video Output	1 * HDMI2.1 (8K@60fps or 4K@120fps), 1 * DP1.4 (8K@30fps,via USB-C), 1 * VGA (1080P@60fps)		
	USB	4 * USB3.1 (Gen1), 1 * USB-C (OTG/DP1.4)		
	Other	2 * RS232, 1*RS485, 1*CAN		

Interface description



Dimension





T-CHIP INTELLIGENCE TECHNOLOGY



Contact Us
(+86)18688117175



E-mail
global@t-firefly.com



Website
www.t-firefly.com



Address
Room 2101, Hongyu Building, #57 Zhongshan 4Rd, East District,
Zhongshan, Guangdong, China.