



# AI Smart Camera

- CT36L
- CT36B

V1.0 2026-4-16

FIREFLY TECHNOLOGY



# Product features



## Vision processor RV1106G2

Based on a single ARM Cortex-A7 32-bit CPU.  
Integrated with Neon and FPU, main frequency up to 1.2GHz.  
Featuring high performance and low power consumption.



## A built-in NPU with 0.5 TOPS

Support INT4/INT8/ INT16 mixed operation.  
Support framework switching of TensorFlow/MXNet/PyTorch/Caffe/ONNX.



## High-performance 5-megapixel ISP

Support advanced image enhancement and correction algorithms, including HDR and WDR, as well as multi-level noise reduction. This ensures clear images and full-color night vision in every lighting condition, such as complete darkness or strong backlight.



## 5M@30FPS H.265/H.264 video encoding

Support multi-stream encoding and intelligent encoding, with adaptive bitrate saving based on the scene. It offers strong encoding capabilities, high frame rates, a low bitrate, and minimal storage requirements.

# Product features



## 5MP/3MP HD Camera

5/3 Megapixel lens is optional. The camera has high sensitivity, high signal-to-noise ratio and low-light imaging capability, outputs high-definition image quality and accurately captures the details of highlights and shadows in dynamic scenes.



## Self-adaptive 100M Ethernet port

Equipped with a self-adaptive 100M Ethernet port, it intelligently adapts network speed for stable and smooth transmission, featuring excellent anti-interference and link reliability, easily adapting to complex network environments such as security monitoring.



## Fast booting and Instant Response

Design of the built-in RISC-V MCU provides low power consumption, fast startup, fast image capture, fast loading of AI model library, and fast completion of face recognition.



## A wide range of applications

Facial recognition, gesture recognition, gate access control, smart security, IP cameras, self-service terminals, smart finance, smart construction sites, smart transportation, and more.

# Specifications



		CT36L/CT36B (3MP)	CT36L/CT36B (5MP)
Basic Specifications	CPU	RV1106G2, Cortex-A7, integrated Neon and FPU, main frequency up to 1.2GHz	
	NPU	0.5TOPS, support INT4/INT8/ INT16 mixed operation Support framework switching of TensorFlow/MXNet/PyTorch/Caffe/ONNX	
	ISP	High-performance 5-megapixel ISP supports HDR, WDR, 3DNR, 2DNR, sharpening, defogging, fisheye correction, gamma correction, feature detection, and more	
	VPU	3072×1728 (5M) @30fps H.265/H.264 video encoding 16M@60fps JPEG snapshot	
	RAM	Built-in 128MB DDR3	
	Storage	CT36L: Built-in 16MB SPI Flash CT36B: Built-in 8GB eMMC	
	OS	Linux	
	Power	DC 12V (5.5mm × 2.1mm)	
	Protection Rating	IP67 waterproof and dustproof design	
	Size	69.72mm × 69.72mm × 174.21mm	
	Weight	≈281g	
	Environment	Operating temperature: -20°C ~ 50°C, Operating humidity: 15% ~ 90%RH (non-condensing)	
Camera	Image Sensor	SONY SC3336	SONY IMX335
	CMOS Size	1/2.8"	
	Pixel	3-megapixel (2304×1296)	5-megapixel (2592×1944)
	Aperture	F2.0	F2.56
	Field of View	98.3°	95°
	Focal Length	3.95mm	4mm
	Distortion	< 33%	≤ -9.5%
	Maximum frame rate	2304×1296@30fps	2592×1944@30fps
	Focusing method	Manual focus	Fixed focal length
	Camera Type	Color	
Network	Ethernet	One 10/100M Ethernet (RJ45)	
Serial Port	RS485	1 × RS485 (Led out via 2Pin-3.5mm Phoenix terminal block)	

# Interface description



**DC 12V-2A**  
 5.5mm x 2.1mm

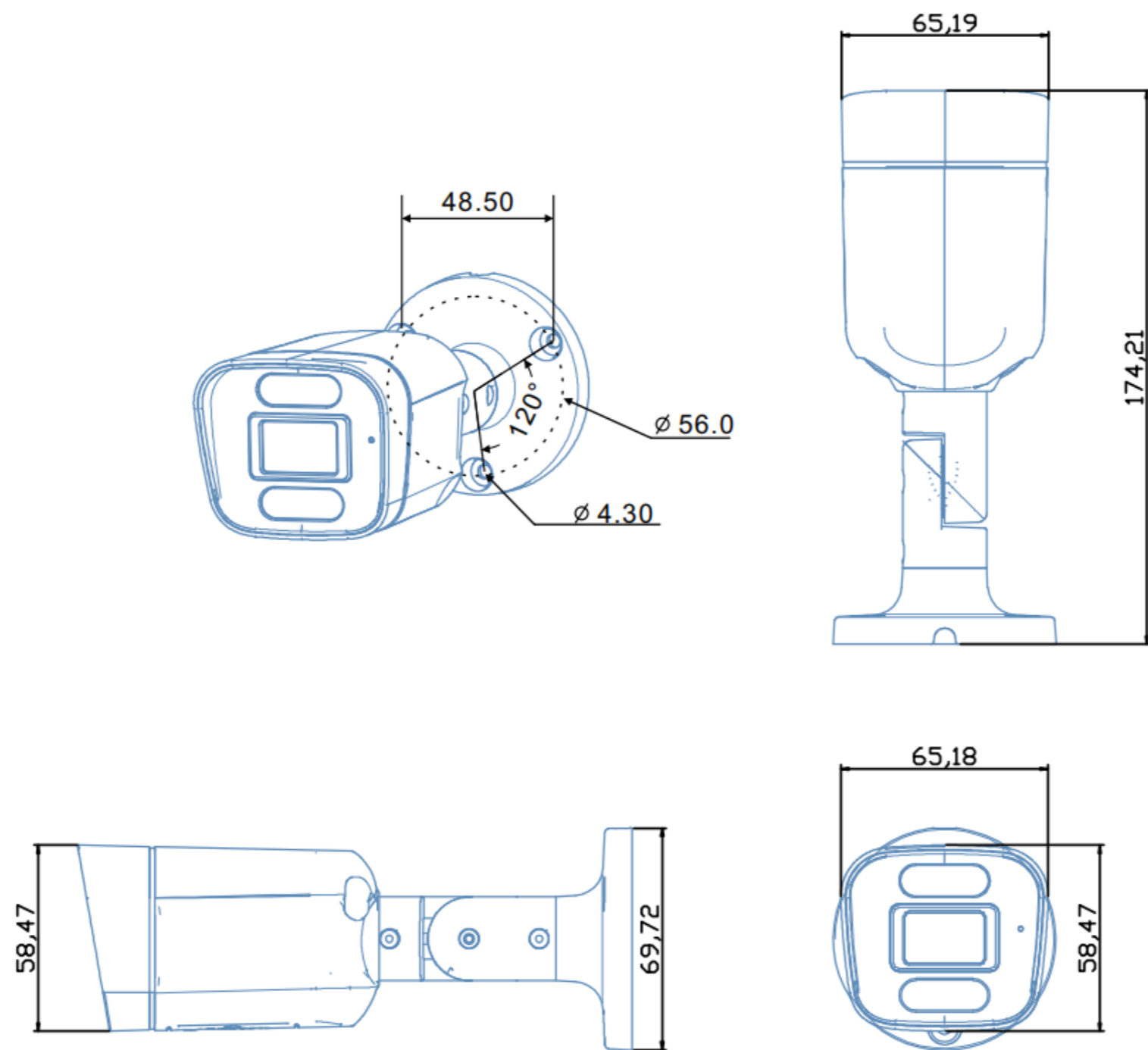
**100M Ethernet**

**RS485**  
 2Pin-3.5mm

Interface	PIN	Definition	Attribute	Description
100M Ethernet	1	DC 12V	Power	DC power supply positive input
	2	DC GND	GND	DC power supply negative input
	3	No signal input		
	4	No signal input		
	5	RJ45_RX-	Input	Network signal input (RJ45_6, green)
	6	RJ45_RX+	Input	Network signal input (RJ45_3, white-green)
	7	RJ45_TX-	Output	Network Signal Input (RJ45_2, orange)
	8	RJ45_TX+	Output	Network signal input (RJ45_1, white orange)

Interface	PIN	Definition	Attribute	Description
RS485	1	485_A	Differential	RS485-A
	2	485_B	Differential	RS485-B


# Dimension








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