2MP ANPR Bullet Camera

HC121

Features

Optics

- Starlight optical sensor and integrated illuminator for vehicle capture and recognition in low-light environments.
- 4 LED illumination beads provide up to 50m illumination.
- 2MP industrial-grade sensor delivers 1920 x 1080 images.
- Motorized zoom lens enables flexible focal length adjustment and easy installation.
- Automatic gain control, white balance, and WDR for various light conditions.

Compression

- Up to 1080P@60fps image collection format.
- 1 image stream, 3 video streams.
- Up to 1080P@60fps live video streams.
- Advanced H.265 encoding technology improves compression efficiency.
- Custom OSD allows various vehicle information to be overlaid on the video image.

Functions

- Built-in vehicle&license plate recognition algorithm can recognize standard license plates of multiple countries.
- Supports simultaneous application to road and entry/exit scenes without switching.
- Supports license plate detection and recognition for up to 2 lanes in road scenes.
- Supports capturing vehicle head only.
- Supports recognition of up to 10 vehicle body colors.
- Supports allowlist and blocklist configuration.
- Supports vehicle access control when connected to a barrier.
- Supports Micro SD cards of up to 128GB.
- Supports Automatic Network Replenishment (ANR), the camera can automatically store video to its SD card in case of network disconnection.
- Supports audio acquisition and intercom.

Network

- Network auto-adaptability ensures fluent live video in relatively bad network conditions such as packet loss.
- Supports SNMP.
- Supports UNP for NAT traversal between public and private networks.
- Supports integration by the third party via SDK or HTTP.

Network Security

- Supports authorized user access by password. Weak password detection and account lock-up when failed login attempts reach the upper limit enhance password security.
- Supports HTTPS.
- RTSP authentication prevents unauthorized video stream requests.
- IP address filtering prevents illegal access from untrusted IP addresses.
- Gateway ARP protection prevents MAC address spoofing.

Structure

- Supports DC 12V, and PoE (802.3at) power supplies.
- Cast aluminum body offers excellent heat dissipation.
- 3-axis mounting bracket for various installation scenarios.
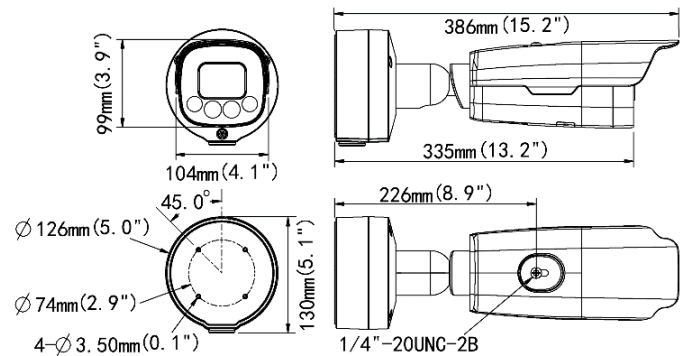- Junction box for cabling.
- IP67, IK10.

Specifications

HC121	TS8C-Z
Camera	Description
Sensor	1/2.8" 2MP CMOS
Focal length	4.7 to 47mm, motorized zoom
Shutter	Auto/Manual, range: 1/25 to 1/100000 s
Minimum illumination	0.001lux (F1.6)
Image	Description
Image collection format	1080P@25 (default), 1080P@30, 1080P@50, 1080P@60
Resolution	Main stream: 1080P (default), 720P, D1 Sub stream: 720P (default), D1, 2CIF, CIF Third stream: D1 (default), 2CIF, CIF
Frame rate	60, 50, 30, 25 (default), 22, 20, 18, 16, 15, 12.5, 10, 8, 6, 5, 4, 3, 2, 1
Video compression	H.264 (default), H.265
ROI	Supports up to 8 regions
Video OSD	Supports 8 overlay areas and allows contents including date, time, date&time, zoom ratio, custom contents

Image OSD	Supports 8 overlay areas and allows contents including time, license plate number, device ID, camera ID, vehicle body color, allowlist, image authentication ID, custom contents (3 items), location
Smart	**Description**
Application scenario	Vehicle speed ≤90km/h Supports simultaneous application to road and entry/exit scenes without switching Supports license plate detection and recognition for up to 2 lanes in road scenes
Vehicle detection mode	Video (default) or inductive loop
Capture vehicle head only	Support
License plate number recognition	Supports recognition of license plates with numbers and letters by default
Vehicle body color recognition	Supports 10 colors: red, green, blue, yellow, white, gray, black, purple, brown, pink
List configuration	Supports allowlist and blocklist configuration, each list allows 20,000 items Supports import, export, add, and delete operations
Barrier opening policy	Open barrier only for the recognized vehicles Open barrier for all vehicles Open barrier only for vehicles on the allowlist Open barrier for vehicles not on the blocklist Configurable Boolean output ID
Storage	**Description**
Edge storage	Supports ANR with a Micro SD card, up to 128GB
Structure	**Description**
Illumination	Built-in integrated illumination module, including 4 white light LEDs, 50m illumination distance, automatic on/off control
Sunshield	Long sunshield
Bracket	3-axis mounting bracket
Junction box	The camera comes with a junction box for storing tail cable
Interface	**Description**
Network interface	1 × 10M/100M RJ45
Serial port	1 × RS485
Boolean output	1 relay output, withstand voltage: AC 125V/0.3A, DC 30V/1A
Boolean input	2 inputs, supports level/Boolean, with max level up to DC 5V
Audio interface	1 × audio input, 1 × audio output
Storage interface	1 × Micro SD card slot
General	**Description**
Power supply	DC12V + 25% - 10% Max. power consumption: 20W Supports PoE (802.3at, class 4)
Dimensions (L×W×H)	386mm x 126mm x 130mm

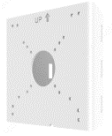|	
Weight	2kg
Operating environment	-40℃ to 60℃, ≤90% RH
Ingress protection	IP67, IK10

Dimensions

Application

The HC121 series is mainly used to recognize vehicle license plates on low-speed roads (such as roads near the entrance/exit of parks, city paths, and lanes in underground parking lots). With an intelligent illumination system, it can detect, recognize and capture vehicles in all weather conditions. It features high vehicle capture rate and high plate recognition accuracy.

Order Information

Model	Configuration	Remarks
HC121	TS8C-Z	2MP ANPR Bullet Camera (4.7 to 47mm, starlight, PoE, H.265, white light)

Recommended Accessories

Mount	Bracket	Example	Remarks
Wall mount	\	\	Use the mount kit delivered with the camera
Pendant mount	\	\	Use the mount kit delivered with the camera
Pole mount	TR-UP06-C-IN		Pole Mount Adapter