E-LPRC500 CAMERA

Introduction

The E-LPRC500 camera are designed to meet the needs of traffic management, law enforcement, security, parking, tolling, and Intelligent Transport Systems (ITS). With advanced algorithms, high-resolution imaging, and robust adaptability, the E-LPRC500 delivers unparalleled performance in vehicle and license plate recognition.

Product Highlights

Advanced license plate security with fake license alarm

Anti-counterfeiting, abnormal plate detection, and unlicensed vehicle support.

IP65 protection

Robust and reliable with IP65 weatherproof protection.

5MP HD camera

Built-in 5MP HD camera with advanced ISP algorithm ensures all-weather recognition, intelligent optimization, dimming, and adaptation to complex scenes while capturing precise vehicle details like car fronts, logos, and body colors for enhanced accuracy.

4 brilliant LEDs illumination

White Lights with 3m to 4m range

Features

• Advanced License Plate and Vehicle Recognition System

- **AI Powered Algorithm:** Powered by ZKTeco's advanced deep learning algorithm and over a decade of expertise in parking solutions, the E-LPRC500 series leverages a robust framework built on hundreds of millions of on-site samples. Its advanced video-based vehicle detection technology enables precise identification of vehicles moving at speeds of 0 to 25 km/h without the need for stops, card swiping, or ground loops. Supporting unlicensed vehicle recognition, feature code comparison, and video or coil triggering, it achieves a 95% license plate capture rate and over 99.9% recognition accuracy, seamlessly integrating precision and reliability to meet critical demands in license plate and vehicle recognition.
- **Comprehensive Vehicle Identification System:** With the ability to identify 7 vehicle categories (e.g., cars, SUVs, trucks) and over 2,100 specific vehicle types, the system provides structured data such as vehicle logos, colors, and more. This makes it ideal for applications requiring vehicle-specific management or fee-based operations.
- **Anti-Fraud and Misidentification Prevention:** The algorithm intelligently analyzes vehicle and license plate characteristics to prevent mis-identifications and detect fake license plates. It effectively deters fraudulent behaviors, such as using counterfeit plates or photos, ensuring accurate and secure access control.
- **Vehicle Event Recognition:** The system supports intelligent detection of complex events, including vehicle retention, returns, and tailgating, providing enhanced operational efficiency and security in varied scenarios.
- **Web-Configurable Global License Plate Recognition Algorithm:** The E-LPRC500 series supports license plate recognition across various countries, and regions including Asia, Africa, Europe, the Americas, and the Middle East. Its flexible algorithm can be configured via the web to recognize license plates from different countries and adapt to regional standards seamlessly. Also, it supports displaying ads, videos, and images on integrated screens for enhanced customization.

• Peripheral Devices Integration at Entrance and Exit

- **One-click Binding of Primary and Secondary Devices:** The primary camera can bind up to three secondary devices, allowing basic configuration of the secondary devices on the primary device and real-time video viewing of both primary and secondary devices on the same interface.
- **Easy Connection:** Add an auxiliary camera by connecting it directly to the main camera. All configuration are managed through the main camera's web interface, simplifying the set up for multi-camera deployment.
- **Offline Identification:** Through the WEB interface, import the blocklist and allowlist or fixed car list for small parking lots, eliminating the need for software management.

• Comprehensive Development Support

- **SDK:** Provide SDK for Windows and Linux environments, support popular development programming languages such as VB, C # C ++.
- **API Protocol Interface:** Supports API interfaces based on standard protocols such as TCP and HTTP to meet the needs of camera and platform system docking.
- **OpenSDK:** Offers a low-level OpenSDK platform for advanced development, enabling users to run custom applications (User APP) on the camera and expand functionality as needed.

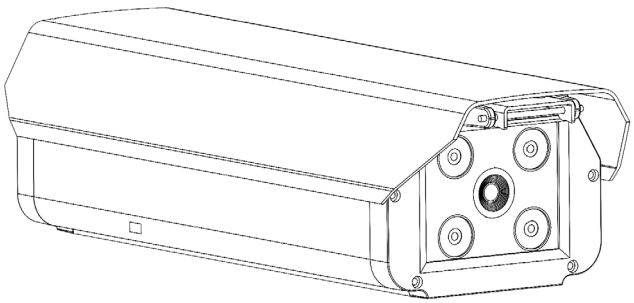
Flexible Solutions

· Standard Set

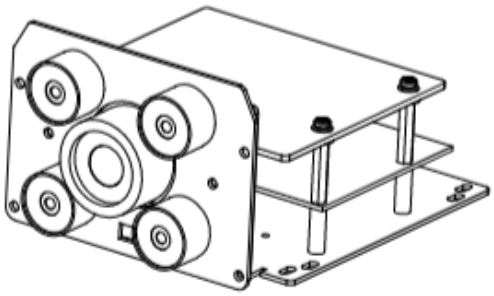
As shown in the figure below, it is equipped with a 15-inch chassis, with sufficient internal space, so it has rich interfaces, LEDs, buttons, etc, and at the same time, the chassis easy to open, which is more conducive to its installation, debugging and maintenance and realizes more functional expansion.

· Module Set

The module version lacks an external structure, allowing customers to integrate it into their own machine chassis.



Standard set



Module set

Specifications

Model	E-LPRC500	
Category	Item	Detail
Algorithm	License plate capture rate	95%
	Recognize rate	≥99.9% (Typical Scene + Typical License Plate)
	Car speeds	0~25KM/h
	Recognize speed	Less than 100ms
	Plate type	Over 130 country and region
	Target features	Number\ Color\ Type\ Size
	License plate anticounterfeiting	Abnormal license plate (mobile phone photo and printing) alarm is supported
	Unlicensed vehicles	Support unlicensed vehicles
	License plate allow list	Support accurate and intelligent fuzzy matching of allow list license
Image	Basic configuration	Built-in intelligent ISP algorithm, intelligent optimization and dimming, intelligent adaptation to complex scenes
Video/Audio	Video compression standards	H.264/ H.265/ MJPEG
	Resolution	640*360/ 704*576/ 1280*720/ 1920*1080
	Video bitrate	512Kbps~5000Kbps
	Frame rate	1~25FPS
	Audio coding	G.711/AAC

Protocols	Protocols	SDK/ ONVIF/ HTTP/ RTSP/ TCP/ IP/ UDP/ RS485/ IO/ NTP/ VPN/ FTP/ UPNP
Networking	Local networking	No need for a host computer or server, automatic operational networking between cameras
	Parking lot	Supports the creation of multiple parking lots and scenario management of multiple cameras
	Block list and allow list	Work with strategy to meet vehicle hierarchy management
	Complementary camera	Up to 4 auxiliary cameras can be added to the same exit/entry point
	LED output	Support external LED screen display, output recognition\billing results
	Audio output	External speakers can be used to broadcast the identification and billing results

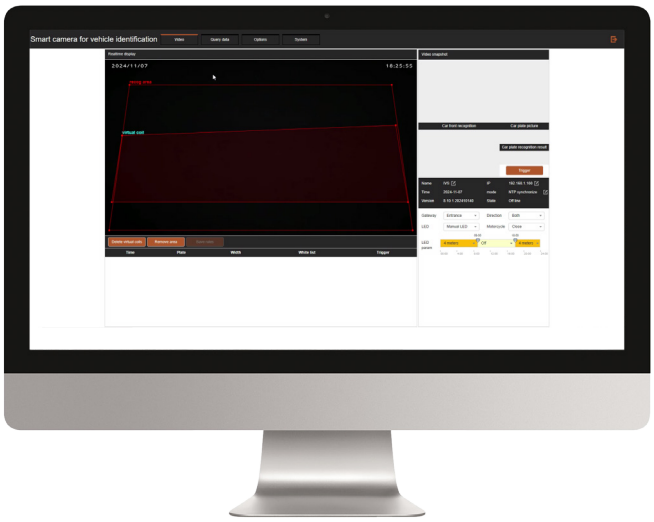
Hardware Info

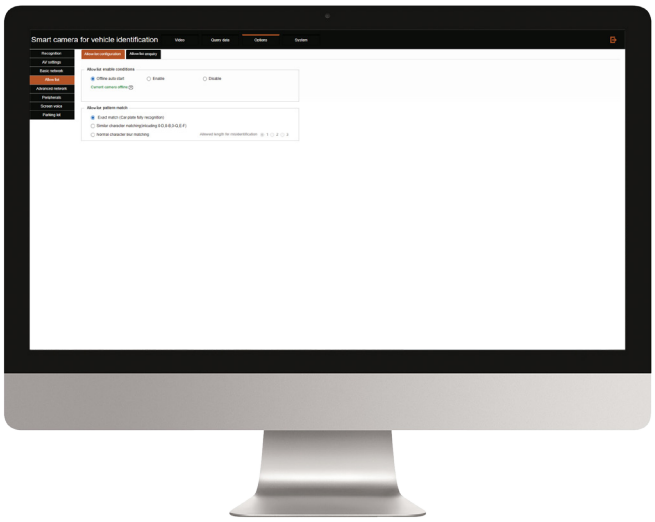
Category	Item	Integrated	Module
Image	Sensor	5MP CIS	
	Resolution	2880(H) x 1620(V)	
	Low light	0.1LUX color (with fill light)	
	Electronic shutter	0-1ms or customized	
	Lens	6mm Fixed Lens	
		Optional 2.8~12mm/ 7~22mm/ 5~50mm Lens	
	Lens interface	M12	
Image Parameters	Image configuration	Brightness, contrast, saturation, image flip, exposure time, etc.	
	Noise reduction	Support 2D/ 3D noise reduction	
	WDR	Support	
Ports/Button	Network	1 * 10/1000Mbps Adaptive RJ45 port	
		1 * 10/100Mbps Adaptive RJ45 port	
	IO input	4 channels	
	RS485	2 channels	
	TF-card	1 TF card slot, supports up to 256GB	
	Bluetooth	Support	
	LCD driver	Optional	
	Voice intercom	Optional	
	Reset	1* RESET Button	
	Status light	Support	
Storage	Storage	32G	

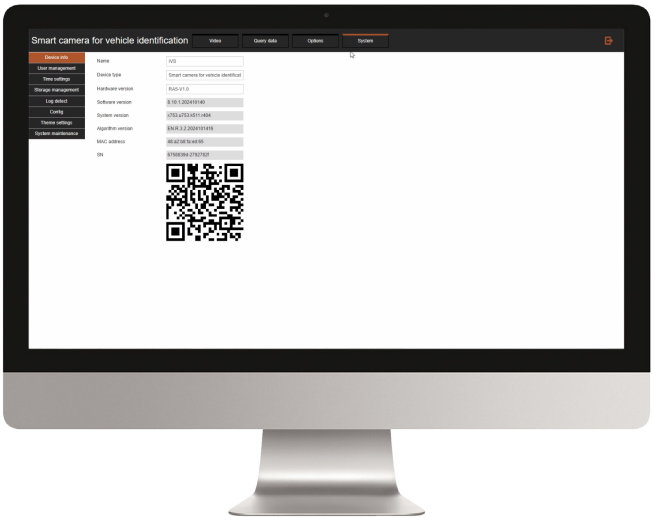
Reliability Parameters	Temperature	-30℃ ~70℃	
	Power supply	12V DC 2A for basic configurations (without speakers, screens and other high power consuming components)	
		12V DC 5A for extended configurations (with speakers, screens and other high-power components)	
	Power consumption	Power consumption ≤ 8W (basic set, including fill light, excluding speakers, screen and other high power consumption components)	
		Power consumption ≤ 55W (extended set with speakers, screen and other high power consumption components)	
	Protection	IP65	...
Structural Parameters	Dimensions(L*W*H)	440mm *144mm*103mm	109mm*149mm *72mm

Multifunction Configuration

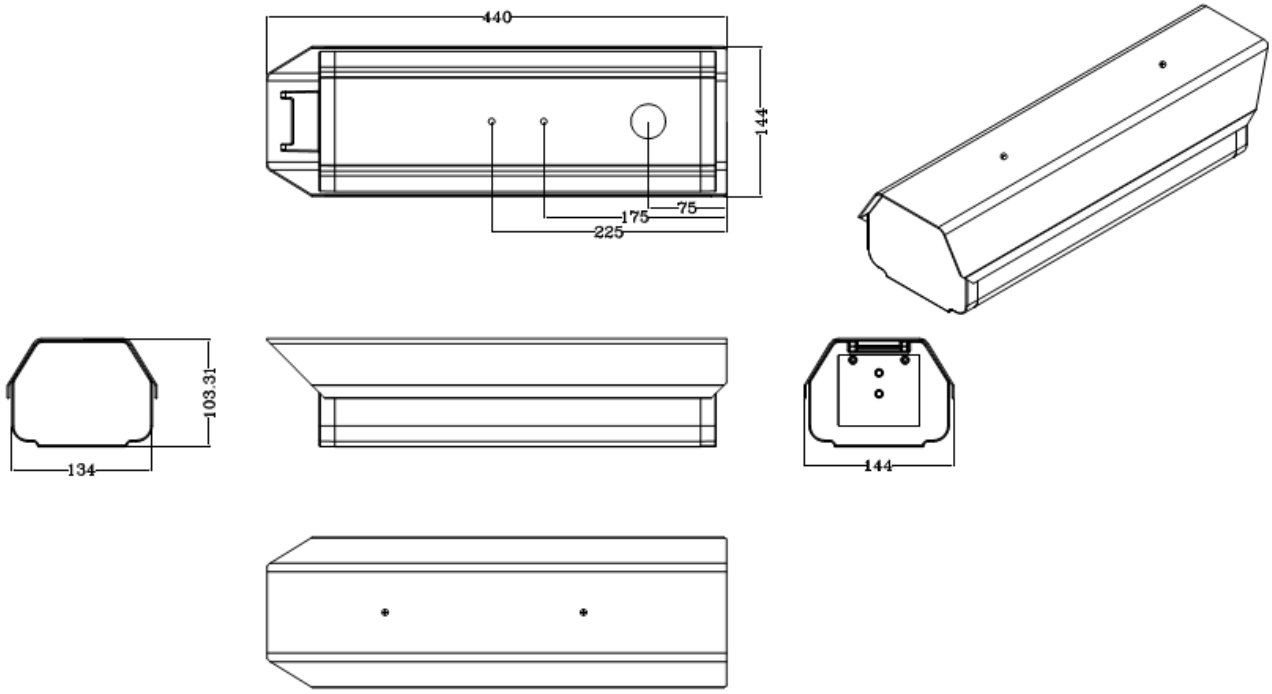
Through the WEB of the camera, it can support the realization of a variety of functions, such as real-time monitoring screen, identification parameter configuration, offline mode, reports and so on

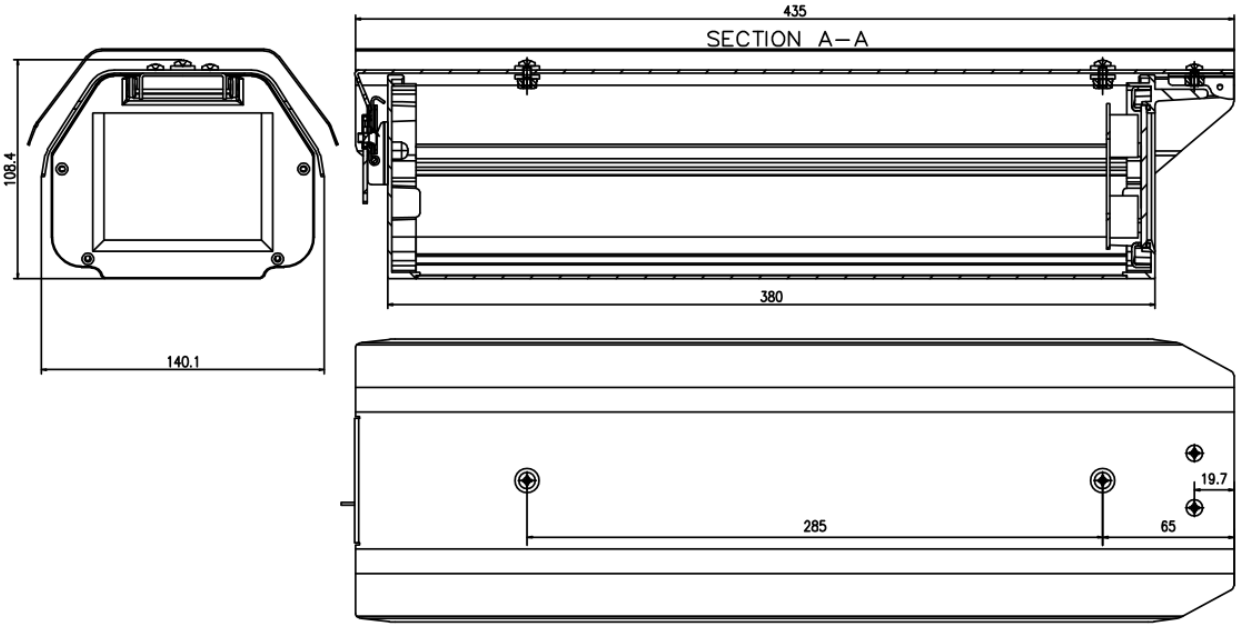




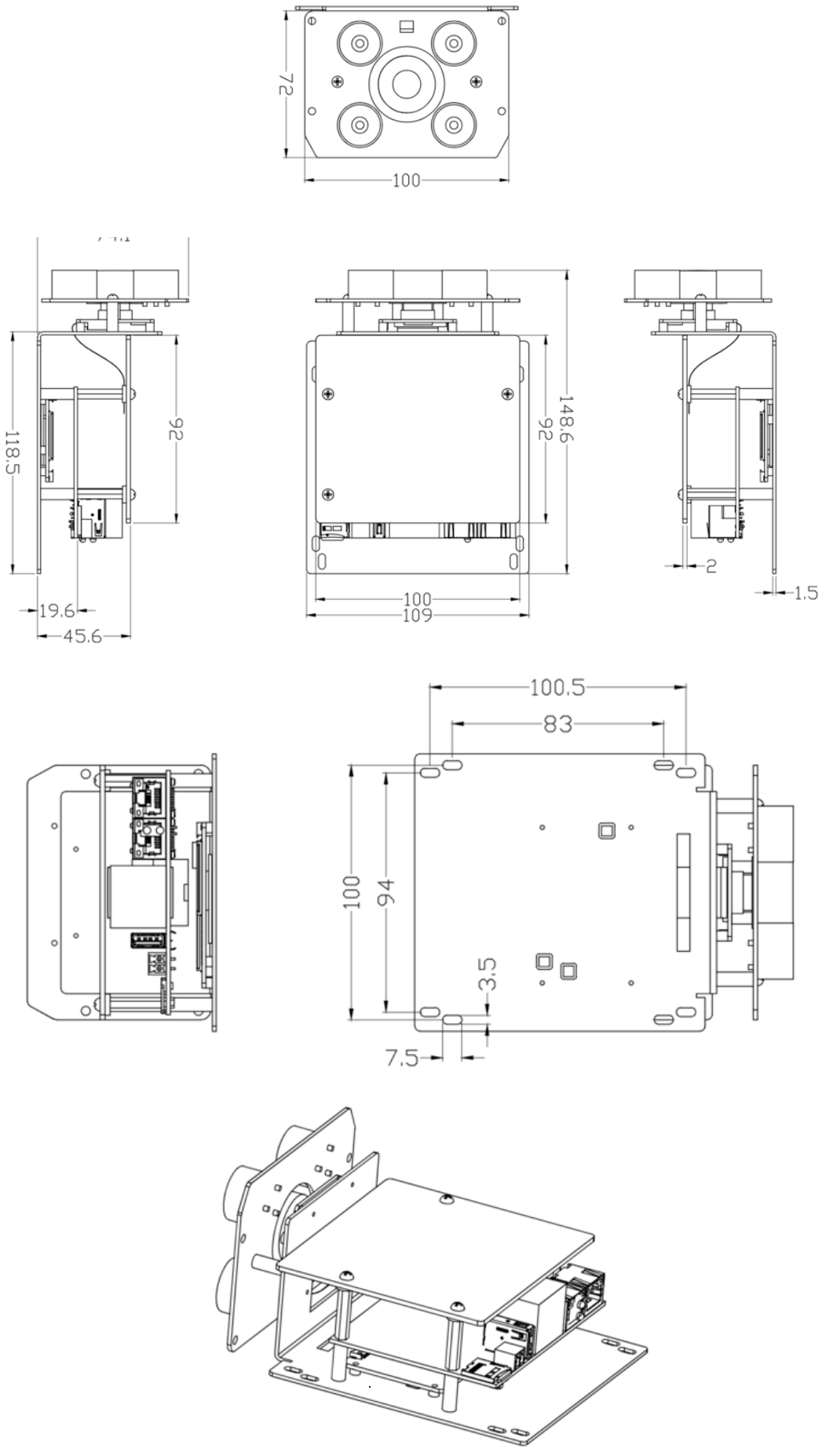


Dimensions (mm)





E-LPRC500 Module Dimension (mm)



Applications

Intelligent Communities

Intelligent buildings

Office Buildings

Enterprise Factories

Accessory Products

LPR-Fixed Column

LPR-Supplement Light

LPR-Display Screen (Optional)