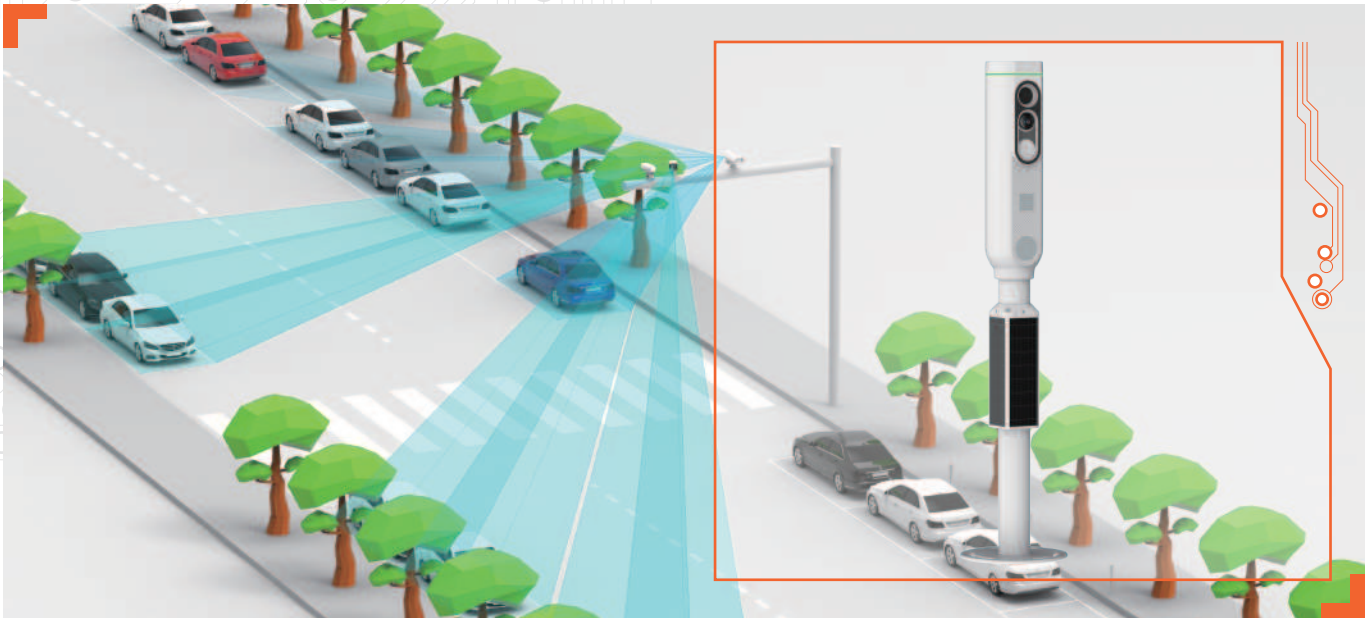
Wiring-free AI Powered Parking ALPR camera pole

BCB02-V3001A-LMSW



Highlights

- Embedded front-end recognition solution for stable and reliable performance
- No need for power or network access at installation site, enabling fast deployment and low installation cost
- 2MP HD CMOS camera with starlight-level sensor, supports wide dynamic range (WDR) and backlight compensation (BLC)
- Supports image capture for vehicle entering, parked, leaving, and vacant states, providing full process evidence
- Built-in vehicle detection algorithm enables alerts for unlicensed vehicle occupancy, non-motorized vehicle occupancy, reverse parking, and more
- IP68-rated enclosure for dust and water resistance
- Integrated smart supplementary lighting and 6-color status indicator light
- Supports cloud-based parameter configuration, OTA firmware upgrades, and battery status reporting
- Low power consumption design; supports up to 6 months of battery life on a single charge
- Supports 8W solar charging
- Supports embedded secondary development

Application Scope

Applicable to urban roads, parking lots, EV charging stations, and similar environments

▪ Parameters

Camera Specifications	Product Name	Wiring-free AI Powered Parking ALPR camera pole
	Model	BCB02-V3001A-LMSW
	Camera Main Chip	Dedicated Embedded License Plate Recognition Chip
	Camera Sensor	2MP 1/2.8 “CMOS
	Lens	Standard 2.8mm fixed lens
	Maximum Image Size	2MP(1920*1080)
	Frame Rate	5-25fps selectable, default 25fps
	Image Functions	Wide Dynamic Range,Backlight Compensation,Anti-flicker
	3A Control	Auto White Balance,Auto Gain Control,Auto Exposure
	Image Parameters	Adjustable brightness, hue, contrast, and saturation
	Noise Reduction / Signal-to-Noise Ratio (SNR)	3D Digital Noise Reduction (DNR) / 50dB
	Compression Format	H.264/H.265
Main Controller Specifications	Main Processor	High-performance dedicated embedded chip for intelligent parking management, integrated with deep learning accelerator
	AI Computing Power	0.5 TOPS (Tera Operations Per Second)
	RAM	2Gbit DDR3 @ 2133 Mbps
	Internal Storage	2Gbit Flash Memory
Radar	Detection Range	20-600 cm
	Detection Resolution	5 cm
Internet	4G Module	Supports full-network 4G connectivity、LTE-TDD: B34 / B38 / B39 / B40 / B41、LTE-FDD: B1 / B3 / B5 / B8
	Wi-Fi Module:	2.4GHz Wi-Fi module, supports direct device-to-device connection
Battery	Battery Type	3.7V waterproof integrated lithium polymer battery pack
	Battery Capacity	30Ah
	Operating Temperature	-20°C to +70°C
	Battery Life	Retains over 80% of initial capacity after 200 charge/discharge cycles
Hardware Specifications	SD Card	Supports SD2.0 standard MicroSD (TF) card, up to 32GB
	Illuminator	Single 120° LED,Supports intelligent control
	Status Indicator light	Supports 6 colors
	Standby Power Consumption	<50 mW
	Operating Power Consumption	<2 W
	Solar Charging	Supports 8W solar charging
	Battery Life	Up to 6 months of operation on a single charge
	Parking Space Detection	1 parallel,diagonal,perpendicular parking spaces
	Supported Plate Types	Standard and special-format plates including single-line, double-line, reflective, non-reflective, commercial, diplomatic, military, and new energy vehicle plates; customizable plate pattern library for different countries and regions
	Abnormal Occupancy Alert	Supports snapshot and alert functions for abnormal parking behaviors, including unlicensed vehicle occupancy, non-motor vehicle occupancy, parking direction inconsistency, and radar occlusion alerts
	Character Overlay	Time, Parking Space Number,Custom Information,Recognition Result
	Network Protocols	TCP/IP,HTTP,RTSP,MQTT
	ONVIF	Supports standard ONVIF protocol
Others	Ingress Protection (IP Rating)	IP68
	Operating Temperature	-20°C to +70°C
	Operating Humidity	20% to 90% RH (non-condensing)
	Dimensions(mm)	ϕ200mm*917mm(H)
	Net Weight	< 5Kg

Installation Notes

1. The camera should be installed above the roadside curb, with a horizontal distance of 40-60 cm from the curb (50 cm recommended)
2. The camera should be positioned 80-100 cm beyond the outer edge of the target parking space line (80 cm recommended)
3. The video post must be securely fixed using embedded anchor bolts and concrete to ensure stability