

ANPR camera with AI-powered recognition engine inside



KEY FEATURES

- ▶ All-in-one: Engine runs within the camera
- ▶ Easy installation: Simple, step-by-step setup
- ▶ PoE+ capability to reduce installation cost
- ▶ REST API for seamless system integration
- ▶ Dry contact to directly control barrier

High-Performance Licence Plate Recognition

The SmartLPR camera delivers exceptional performance for ANPR applications in parking, access control, security, and ITS environments. Its integrated HD sensor captures high-resolution images, ensuring accurate recognition of licence plates under challenging conditions, including plates with non-standard formats or stacked characters. Equipped with dual lamp technology (IR and visible light), the camera provides crisp and clear plate images 24/7, regardless of lighting or weather conditions.

Advanced Processing for Enhanced Accuracy

The SmartLPR camera features an all-in-one design with powerful onboard processing, eliminating the need for external hardware. Powered by a robust multi-core processing platform and running on a stable Linux-based operating system, the camera ensures reliability and consistent performance in demanding environments.

AI-Driven Recognition Engine

The camera has an AI-powered recognition engine, leveraging cutting-edge deep learning technology to process HD video directly within the device. This minimizes network bandwidth usage and maximizes efficiency, allowing for seamless operation without reliance on external processing units. Developed and supported by our dedicated in-house team, the system ensures high accuracy and adaptability to a wide range of ANPR requirements.

PART NO. INFORMATION	DESCRIPTION
04001653, SmartLPR Camera	Housing, 1.5-10 m with IR and White light
07007450, Ceiling bracket	Bracket for ceiling mount
07007452, Wall bracket	Bracket for SmartLPR
07007456, Pole mount	Bracket for pole mount

License Plate Recognition

Recognition Distance	:	1.5 m to 10 m Motorized lens (IR-cut filter, iris, zoom and focus)
Coverage Width	:	Up to 5.5 m (one lane)
Recognition Engine	:	In-house built LPR engine, a Linux based embedded real-time AI engine
Recognition Framerate	:	120 fps with WDR
Recognition Direction	:	Both (Front and rear)
Max Vehicle Speed	:	Up 30 km/h
Triggering	:	Free running (no trigger) – Software Trigger – Hardware Trigger
Confidence Ratio	:	Yes
Recognition JPEG	:	Yes
Square Plate Formats Supported	:	Yes
Countries Supported	:	Worldwide
Other Data Supplied	:	Coordinates of plate, direction, vehicle type

Video and Illumination Features

Lighting	:	Infrared (850 nm) + Cool white (5700K)
CMOS	:	2.13MP, Sensor CMOS color 1/2.8"
Sensor sensitivity	:	Built-in DNR (Digital Noise Reduction) BLC (Backlight comprehension)
Transport Protocol	:	HTTP and FTP

Electrical Characteristics

Power Supply	:	12-24V DC, PoE+ IEEE 802.3at
Power Consumption	:	Average 10 W, max 20W

Mechanical Characteristics

Weight	:	2.4 kg
Dimensions (LxWxH)	:	225 x 148 x 148 mm
Material	:	Aluminium
Coating	:	Back cover and body: RAL 9016 (textured) Visor: RV 7016 (textured)
Water & Dust Protection	:	IP67
Connectors	:	RJ45 Ethernet connector, Power connector, I/O connector
Operating & Storage Temperature	:	-40 to 50°C

Security, Environmental and Technical Certifications

Security	:	HTTPS, SFTP
Photobiological Safety	:	Risk group 2 (IEC 62471:2009)
Homologation	:	EN 55032:2016 Electromagnetic compatibility of multimedia equipment - Emission Requirements. EN 55035:2017 Electromagnetic compatibility of multimedia equipment - Immunity requirements. IEC 61000 Electromagnetic compatibility IEC 62368-1:2020 - Audio/video, information and communication technology equipment - Part 1: Safety requirements. IEC 62368-3:2017 - Audio/video, information and communication technology equipment - Part 3: Safety aspects for DC power transfer through communication cables and ports. EN 60950-22:2017 - Information technology equipment - Safety - Part 22: Equipment to be installed outdoors. IEC 60068-2-1:2007 - Test A: Cold. IEC 60068-2-2:2008 - Test B: Dry Heat IEC 60068-2-14:2011 - Test N: Change of Temperature

Time Synchronization	:	NTP protocol
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Data Input and Output

TCP/IP	:	Yes
HTTP	:	Yes
FTP	:	Yes
Ethernet	:	Gigabit Ethernet (10/100/1000Mbps)
Input	:	2 x 5-30V input port with fail-safe 5V pull-up
Output	:	2 relay dry contact
Other Protocols	:	1 x open collector with 5V pull up (50V max)

Due to TagMaster's continuous effort to develop the products in response to customer needs, the above specifications are subject to change.