

PXL-TR-LPR-ELP4MAI

4MP Outdoor AUTOSIGHT IP Vehicle Recognition Camera



| Product Overview

The PXL-TR-LPR-ELP4MAI is a high-performance **4MP Outdoor AUTOSIGHT IP Vehicle Recognition Camera** designed for intelligent traffic monitoring, vehicle access control, and smart transportation applications. It features **ULTRALUX Ultra-Low Light Technology**, a **1/1.8" Progressive Scan CMOS sensor**, built-in **ANPR/LPR analytics**, and **140 dB WDR** for clear vehicle and license plate capture under challenging lighting conditions.

Built for reliable outdoor operation, the camera features a rugged **IP67 and IK10 weatherproof housing**.

| Key Features

- ✓ 4MP High-Resolution LPR Imaging
- ✓ AI-Powered License Plate Recognition
- ✓ 99% Vehicle Capture Accuracy
- ✓ Up to 3-Lane Traffic Monitoring
- ✓ ULTRALUX Ultra Low Light Technology
- ✓ 24/7 Color Imaging with 140 dB WDR
- ✓ Advanced Traffic Analytics & Detection
- ✓ IP67 & IK10 Rugged Protection

| TECHNICAL SPECIFICATION

CAMERA

Image Sensor	1/1.8" Progressive Scan CMOS
Maximum Resolution	2688 × 1520
Minimum Illumination	Color: 0.0005 Lux @ (F1.2, AGC ON), 0 Lux with White Light
Shutter Time	1/25 s to 1/100,000 s
Day/Night Mode	24/7 Color Imaging

LENS

Lens Options	2.8–12 mm, 8–32 mm, 10–50 mm Motorized Vari-Focal
Field of View (FOV)	2.8–12 mm: H 113.5°–39°, V 58.4°–22.7°, D 141.3°–44.3°; 8–32 mm: H 41.9°–15.1°, V 22.9°–8.64°, D 48.8°–17.3°; 10–50 mm: H 32.2°–7.8°, V 18.1°–4.4°, D 37.1°–8.95°
Focus	Auto Focus
Iris Type	DC-IRIS
Aperture	F1.38 (2.8–12 mm), F1.7 (8–32 mm), F1.7 (10–50 mm)

ILLUMINATOR

Supplement Light Type	White Light
Supplement Light Quantity	3 LEDs
Supplement Light Distance	Up to 50 m

VIDEO

Main Stream	Up to 2688 × 1520 @ 25 fps (50Hz) / 30 fps (60Hz)
Sub Stream	Up to 1920 × 1080 @ 25 fps (50Hz) / 30 fps (60Hz)
Third Stream	Up to 1280 × 760 @ 25 fps (50Hz) / 30 fps (60Hz)
Video Compression	H.265, H.264, MJPEG
Video Bit Rate	32 Kbps to 16 Mbps

AUDIO

Audio Compression	G.711, G.722.1
Audio Bit Rate	8 Kbps (G.711), 16 Kbps (G.722.1)

NETWORK

Network Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4/IPv6, UDP, SSL/TLS, ISUP, ARP
API Support	ISAPI, SDK, ISUP, ONVIF Profile S, G, T, M
Simultaneous Live View	Up to 6 Channels
User Capacity	Up to 32 Users

SECURITY

Security Features	HTTPS, TLS 1.2/1.3, 802.1X Authentication, IP Filtering, Watermark, Security Audit Log, MAC Authentication
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STORAGE

Storage Support	Micro SD/SDHC/SDXC Card up to 512 GB, ANR, CVR, NVR
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* Technical specifications and images are subject to changes

| TECHNICAL SPECIFICATION

IMAGE

Image Settings	Saturation, Brightness, Contrast, Sharpness, Gain, White Balance, AGC
Wide Dynamic Range (WDR)	140 dB
Image Enhancement	BLC, 3D DNR

INTERFACE

Ethernet Interface	1 × RJ-45 10/100/1000 Mbps
Alarm Interface	1 Input, 1 Output, 2 Relays
Audio Interface	Supported
RS-485 Interface	1 × RS-485
Wiegand Interface	1 × Wiegand (26-bit, SHA-1 26-bit, Hik 34-bit)
On-Board Storage	Micro SD/SDHC/SDXC Card Slot, Up to 512 GB

EVENT

Basic Events	HDD Error, Network Disconnected, IP Address Conflict
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TRAFFIC ANALYTICS

Lane Coverage	Up to 3 Lanes
Traffic Flow Detection	Average Speed, Traffic Flow, Queue Length, Traffic Status
Incident Detection	Congestion, Stopped Vehicle, Lane Change, Wrong-Way Driving, Speeding, Low-Speed Driving

MANAGEMENT

Client Software	ISM Master, ISM Pro
Browser Support	Chrome V61+, Firefox V41+, Edge, IE9–IE11

LPR PERFORMANCE

LPR Countries/Regions	Supports license plate recognition across Middle East, Africa, Asia-Pacific, Americas, Europe, and Russian-Speaking Regions, including Malaysia, Singapore, Indonesia, Thailand, Australia, United Kingdom, Germany, France, Canada, Brazil, UAE, Saudi Arabia, and 100+ countries/regions worldwide
Capture Rate	> 99%
Vehicle Direction Recognition Accuracy	> 98.5%
License Plate Recognition Accuracy	> 98%
Mistaken Capture Rate	< 2%
No License Plate Detection	Supported
Motorcycle LPR	Supported
Vehicle Type Classification	Car, Van, Bus, Truck, Light Truck, SUV/MPV, Pickup, Motorcycle, Tricycle
Vehicle Color Recognition	Red, Yellow, Green, Blue, Pink, Purple, Cyan, Brown, White, Grey, Black
Vehicle Manufacturer Recognition	Supports recognition of 84 vehicle manufacturers including Toyota, Honda, Nissan, Hyundai, Kia, BMW, Mercedes-Benz, Audi, Volkswagen, Proton, Perodua, BYD, Hino, Volvo, Scania and others
Capture Speed Range	Standard: 5–120 km/h; Up to 150 km/h with External Fill Light
Blocklist & Allowlist Capacity	Up to 50,000 Records

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| TECHNICAL SPECIFICATION

GENERAL

Operating System	Linux
Power Supply	DC 12–24 V, 1.25 A, Max. 15 W; PoE (802.3at Type 2 Class 4), Max. 15 W
Material	Aluminum Alloy
Dimensions	428.5 × 120 × 132.8 mm (L × W × H)
Package Dimensions	595 × 259 × 193 mm (L × W × H)
Weight	Approx. 2.975 kg
Weight (with Package)	Approx. 4.385 kg
Operating Temperature	-30°C to +70°C
Operating Humidity	≤95% RH (Non-Condensing)
Storage Temperature	-30°C to +70°C
Storage Humidity	≤95% RH (Non-Condensing)
General Functions	One-Key Reset, Triple Stream, Heartbeat, Password Protection, Watermark
Language Support	English, Thai, Croatian, Korean, Russian, Traditional Chinese, Ukrainian, Spanish

CERTIFICATIONS & PROTECTION

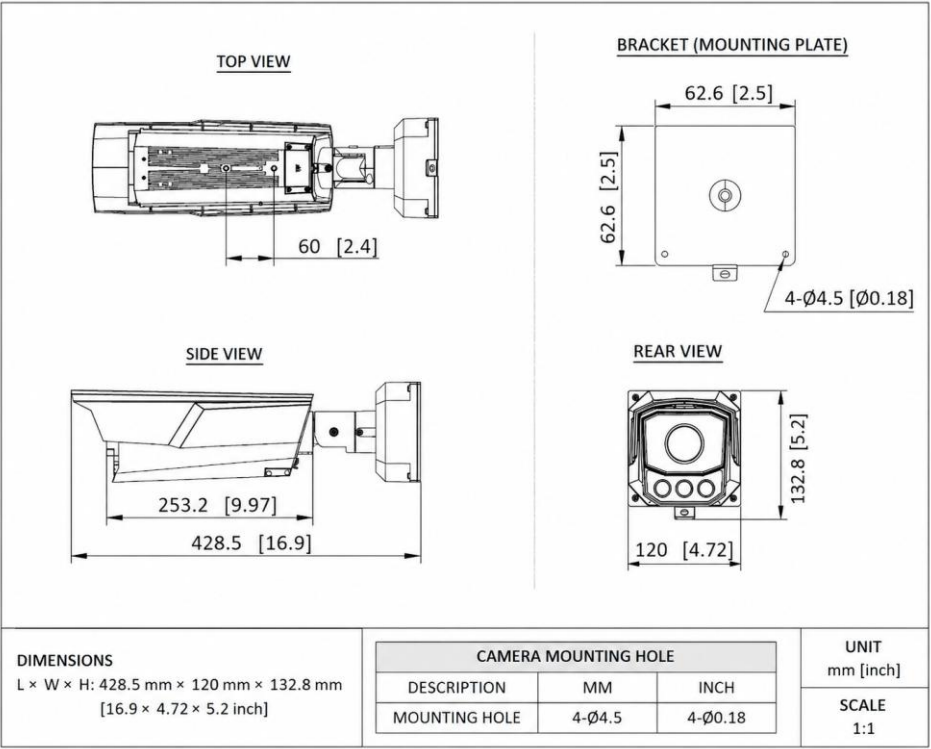
EMC Compliance	CE-EMC (EN 55032, EN IEC61000-3-2, EN 61000-3-3, EN 50130-4)
Safety Compliance	CB IEC 62368-1, CE-LVD EN 62368-1
Environmental Compliance	CE-RoHS, WEEE, REACH
Impact Protection	IK10
Ingress Protection	IP67

AVAILABLE MODELS

Model Variants	PXL-TR-LPR-ELP4MAI2812; PXL-TR-LPR-ELP4MAI0832; PXL-TR-LPR-ELP4MAI1050
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