

# v-LANE AOB

## IP Camera for License Plate Reading

**v-LANE AOB** is the intelligent 2-megapixel camera capable of monitoring and managing all issues related to a roadway, both for security and traffic control purposes.

- Covers 1 lane
- Infrared + colour (bispectral) single-head camera
- License plate reading up to 70 km/h in free-run
- Integrated IR illuminator with stroboscopic LEDs
- 2-megapixel resolution (context + OCR)
- On-board OCR library for 41 European nations, 13 Asia, 6 Africa, 5 South America, and special plates such as Trailers, Kemler ADR, Kemler ADR Empty, Trams
- Daytime classification of vehicles by type in 11 + 1 (Cars, Trucks, Trucks with trailers, Motor vehicles, Motorcycles, Mopeds, Buses, Mini vans, Big vans, Flatbed trucks, Caravans, unknown)
- Night classification of vehicles by type in 4 classes +1 (trucks,



### Features

#### Analysis and recognition

V-LANE A1B captures 60 images per second, within which it analyzes, identifies, and validates the plates of present vehicles. This result, achieved through the use of sophisticated software, allows reading vehicle plates at speeds up to 160 km/h in free-run mode (without an external trigger device).. buses, cars, motorcycles and unknown)

- Daytime classification of vehicles by color in 11 classes + 1 (black, white, grey, red, blue, yellow, green, orange, pink, purple, cyan, unknown)
- Gate AID algorithms for traffic control (stationary vehicle, wrongway vehicle, slow traffic, queue)
- Transit speed estimation function
- Black & White Lists
- ONVIF Profile S
- Accessible via Cloud
- · Compatible with the Vigilate v-SUITE general supervision platform
- OCR library validated multiple times UNI 10772:2016 Class A

#### Data

Data and images can be stored locally, sent to the customer's supervision system, or sent to the v-SUITE supervision platform. The device supports FTP, XML-RPC (over HTTPS), and serial transmission protocols. The Optical Character Recognition (OCR) software library is complete for 41 European nations, 13 Asian countries, 6 African countries, 5 South American countries, and special plates such as Trailers, Kemler ADR, Kemler ADR Empty, Trams (Police, Army, Ambulances, Civil Protection...).

#### Data Security

The storage and transmission of data generated by the product takes place using highly reliable and secure protocols, guaranteeing the highest level of inviolability and privacy. Vigilate complies with the most restrictive regulations on data security such as ISO27001:2022 and ISDP10003:2018 - Privacy by Default and Privacy by Design.

#### **Application Examples**

- Access control for public and private parking lots
- Access control for residential and commercial areas
- · Access lanes to ports, airports, stations, etc...



## DATASHEET

| Sensor (OCR + COLOUR):             | 2 Mpix CMOS Color + IR (bispectral) Rolling shutter Full-HD   |
|------------------------------------|---|
| Frame rate:                        | Up to 60 fps  |
| Optics:                            | Standard S mount fixed lens                                   |
| DAY & NIGHT:                       | IR Cut  |
| Processor:                         | Quad-core + HW video encoder unit                             |
| Memory:                            | 16-32 GB iNAND flash  |
| RAM:                               | 1 GB  |
| 0.S.:                              | Linux   |
| Storage Disk:                      | 16 GB (up to 128 GB)  |
| 1/0:                               | N.3 input opto-isolated                                       |
|                                    | N.2 output relays   |
| LAN and Ports:                     | N.1 RS-485 port   |
|                                    | N.1 Ethernet 10/100/1000 Mbps port                            |
| Streaming:                         | MJPEG, H264   |
| Operating mode:                    | - continuously acquisition (free-run)                         |
|                                    | - on request (by SW trigger or HW trigger)                    |
|                                    | Both modes can draw on the two local lists that can be        |
|                                    | configured locally or by remote synchronization with the FTP  |
|                                    | server  |
| Dool time diagnostice.             | - CPU temperature   |
| Real-time diagnostics:             | - Mainboard temperature                                       |
|                                    | - IR illumination module operation                            |
|                                    | ·   |
|                                    | - Lighting module current peaks                               |
|                                    | - Capture status of physically connected sensors              |
|                                    | - Input current level (power port)                            |
|                                    | - Input voltage level (power port)                            |
|                                    | - Camera tilt angle   |
|                                    | - Internal humidity level                                     |
|                                    | - CPU consumption   |
|                                    | - RAM consumption   |
|                                    | - Storage disks status  |
|                                    | - Utilization of the 4 physical cores (CPU monitoring)        |
|                                    | - Check status of operational threads                         |
|                                    | - Monitoring of analysis times and operating status of active |
|                                    | algorithms  |
|                                    | - Generation of any alarms (local and possibly remote) in the |
|                                    | face of anomalies detected                                    |
| Supported sending protocols:       | - TCP (in binary, XML, string formats)                        |
|                                    | - TCP Milestone   |
|                                    | - FTP (imgs + text data in *.txt/*.csv)                       |
|                                    | - RPC-XML over HTTP / HTTPS (BASIC or EXTENDED message)       |
|                                    | - Custom Protocol (message configurable via template and      |
|                                    | sendable by HTTP POST / HTTPS POST /TCP protocols) - Seria    |
|                                    | (on RS 485 port)  |
| Supported communication protocols: | TCP/IP, UDP, HTTP, HTTPS, FTP, FTPS, RTP/RTSP, OpenVPN,       |
|                                    | ONVIF (S-Profile), NTP, SNMP                                  |
| Supported power supply:            | 24VDC (1,25 A) or +12VDC (2,5 A) or UPoE 60W                  |
| Consumption:                       | 8W typically  |
| Dimensions:                        | 450 x 140 x 150 mm  |



| Weight:                    | 750 gr   |
|----------------------------|--|
| Operating temperature:     | -30°/ +60°   |
| Humidity:                  | Up to 90% Relative humidity non condensing                         |
| Protection:                | IP66 - class IK10  |
| Illuminator:               | Class 1M CEI EN 69825-1 ED. 4, 850 nm IR LED                       |
| AID algorithm:             | Certified high reliability, the library has been validated several |
|                            | times by UNI 10772 AID algorithm: The instantaneous speed          |
|                            | estimation by video analysis and consequently the AID              |
|                            | algorithm with the various supported features are highly           |
|                            | reliable as demonstrated by numerous field tests in the            |
|                            | presence of approved systems for speed estimation for              |
|                            | sanctioning purposes.  |
| Regulations complied with: | EN 55032/2015  |
|                            | EN 55035/2017  |
|                            | EN 50561-1/2013  |
|                            | EN 62368-1 (EN 62368-1/2014+A11/2017)                              |
|                            | EN 60068-2-14/Nb 2011-11   |
|                            | EN 60068-2-78/2013-11  |
|                            | EN 62471/2010  |
|                            | EN60529/1991+A1/2000+A2/2013                                       |
|                            | 2016/679 (GDPR)  |
| Options:                   | Tower Case, Wall bracket, Pole adaptor, Micro SD 128 GB            |





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