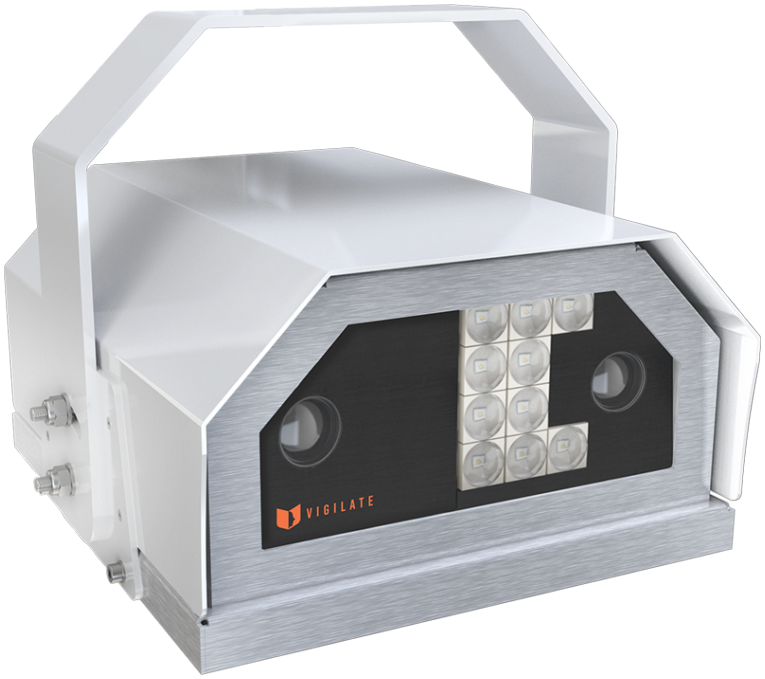
v-LANE A5D2HP 5/2MP@75/60fps Multifunctional 250Km/h



- Coverage of 2 lanes
- OCR + COLOR double head camera
- Plate reading up to 250 km/h in free-run
- Integrated IR illuminator with stroboscopic LEDs
- 5 Mpixel OCR camera resolution 2 Mpixel Context Color camera resolution
- OCR library on board with 41 countries in Europe, 13 Asia, 6 Africa, 5 South America and special plates such as Trailers, Kemler ADR, Kemler ADR Empty, Tram
- 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, 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)
- Vehicle brand classification (around 100 brands supported)
- Model classification of vehicles in transit - Rear view (about 400 models supported)
- Gate AID algorithms for traffic control (stationary vehicle, wrong-way vehicle, slow traffic, queue)
- Transit speed estimation function
- Black & White lists
- ONVIF Profile S
- Local NVR function for storage continuous recording of camera video streaming and creation of micro movies on vehicle transits
- Cloud ready
- Compatible with the Vigilate v-SUITE general supervision platform
- **OCR library validated several times by UNI 10772:2016 Class A**

FEATURES:

Analysis and recognition: v-LANE A5D2HP is the intelligent 5Mpixel OCR - 2 Mpixel context double head camera, able to control and manage all the problems of a high-speed road crossing; detects up to 75 images per second at a depth of 12bit, within which it analyzes, identifies and validates the license plates of the vehicles present. also thanks to the powerful double illuminator that works effectively up to 30 meters in all light conditions. This result obtained through the use of sophisticated software makes it possible to read the license plate of vehicles in transit at speeds of up to 250 km/h in free-run mode (without an external trigger device). **Data:** Data and images can be stored directly locally, sent to the customer's supervision system or sent to the v-SUITE supervision platform. The device has FTP, XML-RPC (on HTTPS) and serial transmission protocols. Software Optical Character Recognition (OCR) library complete with 41 countries in Europe, 13 Asia, 6 Africa, 5 South America and special plates such as Trailers, Kemler ADR, Kemler ADR Empty, Trams (Police, Army, Ambulance, Civil Protection...).**Classification** The camera is equipped with a video classification software capable of recognizing vehicle types with 11 + 1 classes including (Cars, Trucks, Trucks with trailers, Motor vehicles, Motorcycles, Mopeds, Buses, Mini vans, Big vans, Box bodies, Caravan, unknown); it is also able to identify the dominant color among a range of 11 colors + 1 (black, white, gray, red, blue, yellow, green, orange, pink, purple, cyan, unknown). v-Lane is equipped with gate AID algorithms for traffic control (stationary vehicle, wrong-way vehicle, slow traffic, queue). **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. **Application examples:** Highway control and high-traffic streets

Vigilate S.r.l.

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Cap. Soc. € 10.000,00 I.V. | C.F. / P.IVA .: IT 01598660056 - SDI: W7YVJK9

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DATASHEET:

OCR Sensor:	5 MP (2560 x 1936) CMOS IR global shutter sensor, frame rate Up to 75 fps
Color Sensor:	2 MP (1920 x 1080) CMOS COLOR rolling shutter sensor, frame rate Up to 60 fps
Optics:	Standard attacco C 25mmOCR, 12mm CTX
Integrated IR illuminator:	n. 10 LED IR (CLASS 1M CEI EN 69825-1 ED. 4, 850 nm IR LED)
Processor:	Quad-core + HW video encoder unit + Neural coprocessor
Memory:	16 GB e-MMC Flash
RAM:	4 GB
S.O.:	Linux
Storage Disk:	HD SSD 128 GB (up to 2 TB)
I/O:	N. 2 input opto-isolated N. 1 output relè N. 1 fast output strobo 12-24 VDC N. 1 output open-collector 12-24 VDC
Ports:	N.1 USB port N.1 RS-485 port N.1 10/100/1000 Mbps Ethernet port
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
Real-time diagnostics:	- CPU temperature - 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) - Serial (on RS 485 port)

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	- Wiegand (need to install SC20 converter) - Xentinel message (over HTTP) - v-SUITE message (over HTTP / HTTPS)
Supported communication protocols:	TCP/IP, UDP, HTTP, HTTPS, FTP, FTPS, RTP/RTSP, OpenVPN, ONVIF (S-profile), NTP, SNMP
Data protection:	- possibility to activate the management of the web configurator by HTTPS connection - FTPS encryption on TLS/SSL protocol - AES-256-ECB encryption for data and images saved locally and/or sent via the supported protocols - image hash using SHA-512 algorithm and possible encryption of the signature itself using AES-256-ECB - totally GDPR compliant storage management with periodic deletion of the history - cockpit masking function (in case of front detection of vehicles) in order to ensure respect for privacy - possibility to connect the camera inside an openVPN with certificate installed directly on board - advanced management of the firewall on the machine with the possibility of disabling access to the ocal servers present on the machine (FTP server, ONVIF server, SNMP server, service ports)
Supported power supply:	24VDC (5 A)
Consumption:	12W typically
Dimensions:	350 x 270 x 165 mm
Weight:	6 Kg
Operating temperature:	- 30°; +55°
Humidity:	up to 90%
Protection:	IP66
OCR library:	Certified high reliability, the library has been validated several times by UNI 10772
Classification algorithms:	The percentages of correct classification depend on compliance with the installation geometry but are above 90% regardless of the external environmental conditions
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, UE Regulation 2016/679 (GDPR)

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