v-LANE A2B 2MPX@60 fps Multifunctional ANPR 250 Km/h

- Infrared + color (bispectral) single head camera, 1 Lane coverage
- Plate reading up to 250 km/h in free-run
- Integrated IR illuminator with stroboscopic LEDs
- 2 Mpixel resolution (context + OCR)
- 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
- Compatible with the Vigilate v-SUITE general supervision platform, Cloud ready
- **OCR library validated several times by UNI 10772:2016 Class** A



FEATURES:

Analysis and recognition: v-LANE A2B is the 2Mpixels intelligent camera able to control and manage all the problems of a road gate both for safety aspects and for aspects relating to traffic control. v-LANE A2B detects 60 images per second within which it analyzes, identifies and validates the license plates of the vehicles present. 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: Access control for public and private car parks, Access control for residential and commercial areas, Access lanes to ports, airports, stations, etc...

Vigilate S.r.l.

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

Dasa-Rägister

v-LANE A2B 2MPX@60 fps Multifunctional ANPR 250 Km/h

DATASHEET:

Sensor (OCR + COLOR):	2 MP (1920 x 1080) CMOS COLOR + IR (bispectral) global shutter sensor
Frame rate:	Up to 60 fps
Optics:	Standard varifocal lens, 8-50 mm
Integrated IR illuminator:	n. 8 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) - Wiegand (need to install SC20 converter)

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	- 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 local servers present on the machine (FTP server, ONVIF server, SNMP server, service ports)
Supported power supply:	24VDC (2,5 A) or +12VDC (5 A) or UPoE 60W class 6
Consumption:	12W typically
Dimensions:	450 x 140 x 150 mm
Weight:	2,6 Kg
Operating temperature:	- 30°; +60°
Humidity:	up to 90%
Protection:	IP67 - class IK10 (on request)
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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