

# Tattile ANPR Camera Range

## Over 50,000 ANPR Cameras in Operation Globally

Introducing the Tattile range of Automatic Number Plate Recognition (ANPR) cameras for intelligent traffic systems and mobility applications. The Tattile range can be used for many applications including tolling systems, traffic management, vehicle counting, traffic monitoring, speed enforcement and vehicle counting and classification.



## Top Performance Hardware

- Embedded multicore processors
- High sensitivity sensors
- Storage from 128GB up to 1TB according to customer requirements
- Smart design
- IP68 protection grade
- Extended temperature capabilities (-40° - +60° celcius)
- Modular platform designed to include various sensors to match all potential applications
- Huge processing capability for real time image processing
- Modular architecture allows for easy customisation of the hardware platform
- Devices able to detect and read non-reflective license plates without an external luminator
- The hardware system has been designed using a modular approach capable of receiving different processors ensuring future CPU evolutions for state of the art performance

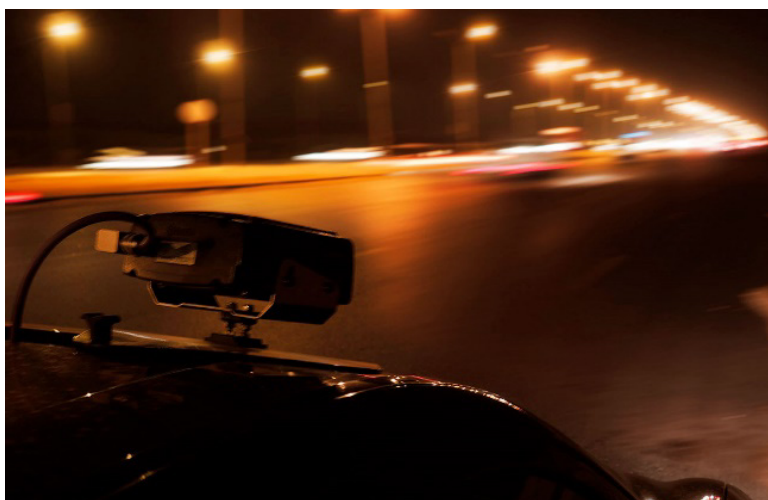


# ANPR Mobile

## Automatic Number Plate Reader

ANPR Mobile is the smart solution to prevent crime, offered as an aid to Police Forces. It is an evolved and modern license plate reading system, installed on the cars of specialised operational departments and/or intelligence services. ANPR Mobile acts as a support to surveillance and protection, serving as a tireless watchful eye on the road.

ANPR Mobile is the latest generation system with Megapixel sensors that can scan up to 60 license plates per second, front and rear, in any light condition.



- Wi-Fi data transmission from the unit to pc/ tablet
- On board GPS
- Embedded license plate analysis (OCR on board)
- Real time processing (up to 60 frames per second)
- 1920 x 1080 Monochrome CMOS sensor
- Waterproof circular connector
- Storage up to 128GB
- Continuous processing with automatic plate detection



# Vega Basic Family

## Automatic Number Plate Reader

Mainly targeted towards stop and go tolling, parking and access control systems. The Vega Basic Line features a Power-Over-Ethernet (POE) interface to minimize installation and maintenance time. They contain the new generation full HD sensor for reading reflective and non-reflective plates.

The Vega Basic Line is built around a small and compact case. The units are stand alone thanks to local buffering of information. The system is able to function even during disruption to the data connection.



- Extra compact size to reduce installation impact
- Easy to install and does not require external IR lighting
- Vandal proof connectors
- Impressive capability to constantly keep the device updated
- Available in BW and colour versions
- 2 Megapixel ANPR camera
- Storage up to 128GB



**Vega Basic Short Range** - Can read up to 8 metres at a max speed of 70km/h

**Vega Basic Long Range** - Can read up to 25 metres at a max speed of 150km/h



# Vega 1

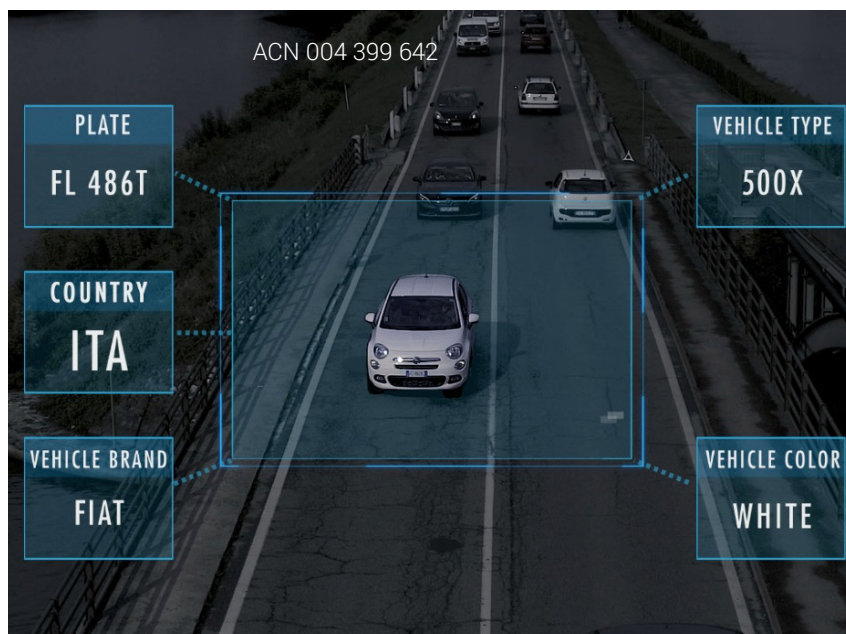
## Automatic Number Plate Reader

The Vega 1 is a dual channel camera built in a compact case. The unit is mainly targeted towards single lane vehicle tracking, traffic limited areas and priority lanes. The high sensitivity image sensors are available for ANPR reading and video streaming in both extreme and low light conditions.

The camera allows for easy setup to minimise installation and maintenance time. Thanks to its local storage it can work stand alone in case connectivity is unavailable.



- Compact, easy to install and does not require external IR lighting
- ANPR onboard with local storage
- Speed estimation
- Video streaming
- Max vehicle speed detection of 200km/h
- 3 Megapixel sensor ANPR camera
- Storage up to 128GB
- Capture rate of up to 60 frames per second
- Single lane road tracking
- Waterproof circular connector
- Reads up to 25 metres



Revision 1 February 2020



# Vega Smart Speed

## Automatic Number Plate Reader

Real time detection of infringements with OCR on board. The Vega Smart Speed has the ability to recognise every plate passing under the camera and not only violators. This is extremely useful for security or statistical purposes. All plates are recorded and available for speed enforcement, insurance control, vehicle tracking or traffic monitoring.



- Embedded multi tracking radar
- No post-processing required
- Detection of vehicles exceeding average speed or punctual speed limits
- 2 lane detection
- Max vehicle speed detection of 250km/h
- Video streaming
- 5 Megapixel ANPR camera
- Storage up to 128GB
- Capture rate of up to 75 frames per second
- Waterproof circular connector
- Reads up to 35 metres

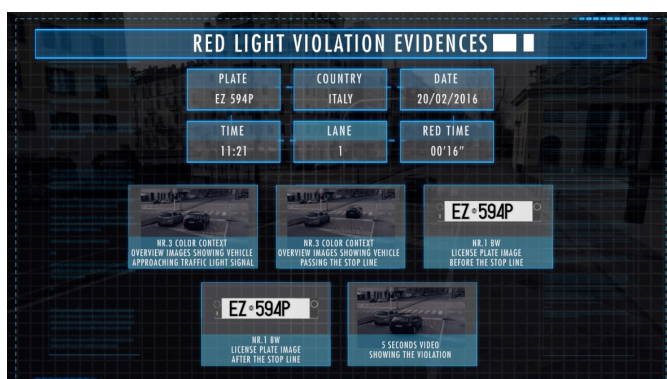
# Vega Smart Traffic Light

## Automatic Number Plate Reader

The new concept to safeguard intersections. Vega Smart Traffic Light allows the red light status identification through image analysis. Red light violations are detected by image analysis (without external sensors). No external device is required reducing installation and maintenance costs.

The system is able to manage different kinds of traffic installations (one or two lanes, one traffic light, each lane or every two lanes).

Vega Smart Traffic Light is able to recognise every plate passing under the camera and not only violators. This is extremely useful for security or statistical purposes. All plates are recorded and available for red light enforcement, insurance control, vehicle tracking or traffic monitoring.



- Compact, and easy to install
- ANPR onboard with local storage
- Video streaming
- Max vehicle speed detection of 250km/h
- 5 Megapixel sensor ANPR camera
- Storage up to 128GB
- Capture rate of up to 75 frames per second
- Multi lane road tracking
- Waterproof circular connector
- Reads up to 25 metres



# Axle Counter

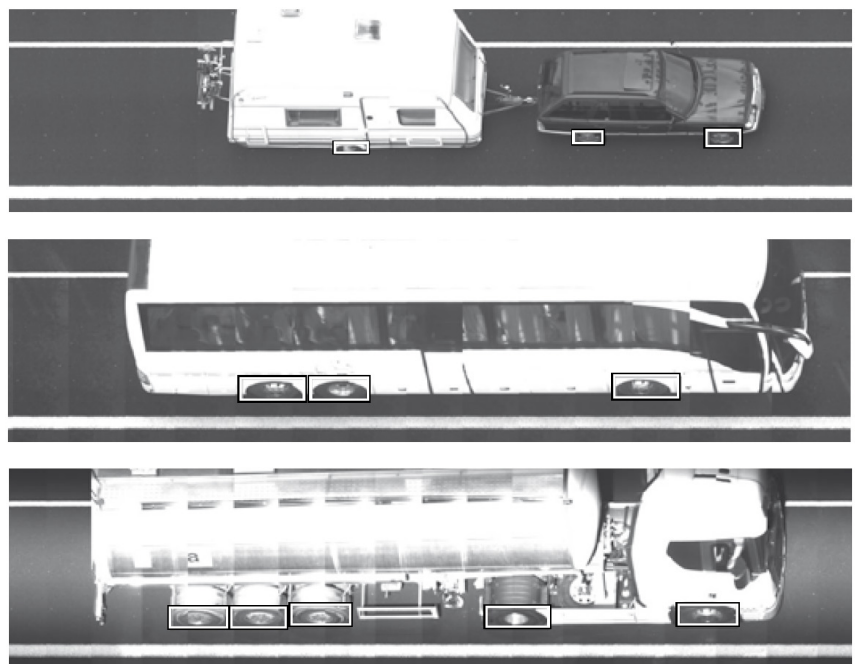
## Integrated Axle Counting System

The new concept of axle counting based on Artificial Intelligence. The Axle Counter is used for free flow tolling applications. It has advanced embedded processing capability, based on Artificial Intelligence (AI) that allows it to detect and count vehicles' axles, day and night. The Axle Counter gantry installation is made easy thanks to the Power-Over-Ethernet (POE) interface that provides a single cable connection to the camera for power and data transfer.

Additionally, for optimal performance the Axle Counter is triggered by different triggering sources. This allows for flexible interfacing with existing devices and perfect integration with Tattile devices. The Axle Counter provides the resulting metadata together with the reconstructed image of the vehicle, giving evidence of the transit to the tolling operators. Local storage capability also allows for operations to be stand alone if connectivity is unavailable.



- Onboard processing
- Local storage
- Power Over Ethernet
- Metadata and image output
- Max vehicle speed detection of 180km/h
- Capture rate of up to 50 frames per second
- 2 Megapixel image capture sensor
- External InfraRed illuminator
- Waterproof circular connector
- Data buffering and storage



# Vega Smart HD - Vega Smart 2HD

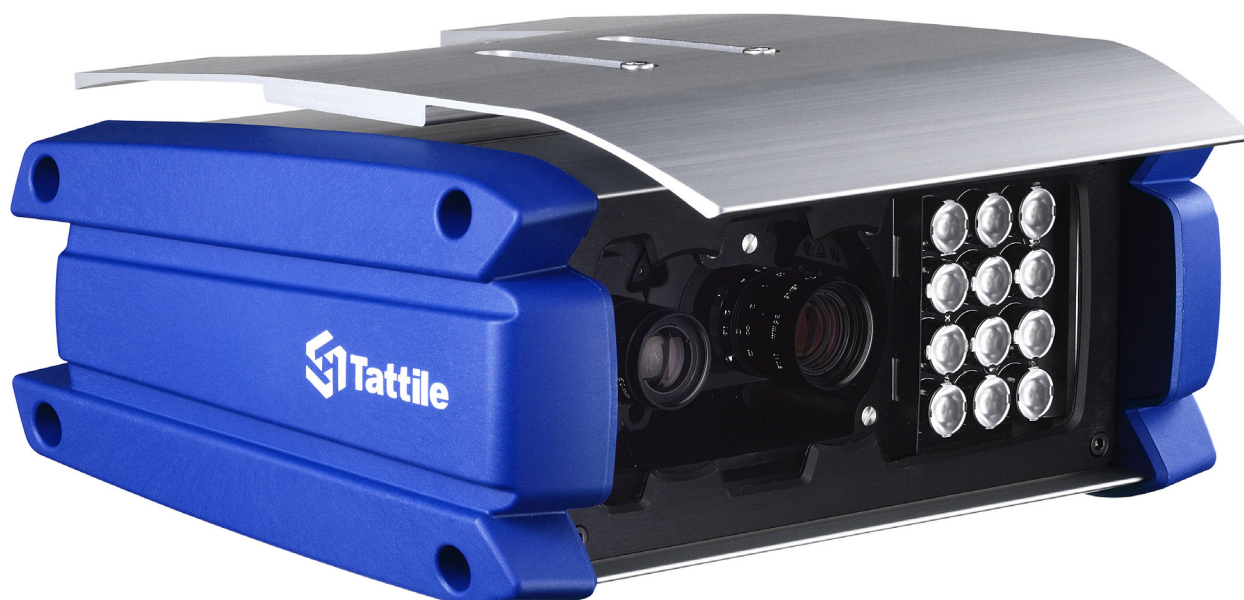
## Automatic Number Plate Reader

The Vega Smart Family is built as a high performance base allowing for high scalability. Used for high-end, multivehicle per second applications. With embedded license plate recognition, image analysis software, high resolution sensors, low power consumption and an on-board web server, the Vega Smart camera allows for performance of innovative applications.

The camera can be integrated/connected to external devices and receive the vehicle class data from an external classifier (laser scanner, radar, loops etc). It can also receive tag identifiers from RFID antennae and the vehicle axles quantity data from an external device.

The system is stand alone thanks to local buffering of information. The system is able to work during disruption of data connection.

The camera is designed to detect and recognise reflective and non-reflective license plates. The new context camera colour sensor is capable of providing good quality images even in low light conditions (from 25 Lux).



- Compact, and easy to install
- ANPR onboard with local storage
- Max vehicle speed detection of 250km/h
- 5 Megapixel sensor ANPR camera
- 5 Megapixel Context camera
- Storage up to 128GB
- Capture rate of up to 75 frames per second
- Multi lane road tracking
- Waterproof circular connector
- Reads up to 35 metres



# Inspector

## Traffic Data Manager

Inspector is a scalable platform able to centralize the data acquired from different cameras distributed in the field. The system is scalable and extensible to perform average speed enforcement control, security applications, traffic statistics and access control.

Inspector can analyse collected data according to configurable rules and undertake a number of actions based on the results: opening gates, sending emails, posting messages on variable message panels.

Inspector generates reliable reports; various research queries can be done.

Inspector does not need to be installed on client machines, the SW can easily be accessed with any browser; the multi-user software manages multiple connections and queries at the same time.

Safe login to the system using credentials (username and password), giving the ability to set up different user profiles.

Features the ability to embed the software in the user's apps (or third parties) thanks to Web Service calls.



### Applications:

- Average speed enforcement
- Vehicles Research; transit movements control (reported vehicles) based on a configurable internal database or connecting to a database
- Origin destination
- Geo-referenced map indicating devices position
- Transit movements and traffic statistics generation, possibility to personalise statistics
- Access control

Revision 1 February 2020

# Top Performance Software

- Linux OS platform
- Proprietary high performance plate reader algorithm
- Camera software can be fully upgraded from a remote connection
- Easy to use and configure with an integrated web interface
- SDK available for easy integration
- Optional integration with third-party software running on-board to extend device capabilities
- Standardised interface allows future system upgrades without significant reworks
- Automatic grabbing parameter selection to adjust image acquisition according to external light conditions
- Transit notification with customizable metadata, encryption and signature algorithms
- High performances software and scalability

## Add-on Software

Tattile's add-on software libraries allow transforming a simple ANPR (ALPR) camera into a big data collector, providing a wide range of information for different purposes such as security, traffic analysis, smart cities, data classification, pollution estimation and traffic statistics.

All add-on software can be uploaded even if the camera is already installed.

- A - BCCM - Brand, Class, Colour and Model recognition
- B - Rigel - Traffic analysis and incident detection
- C - Inspector - Traffic data management system

