



TRAFFIC  
DIVISION



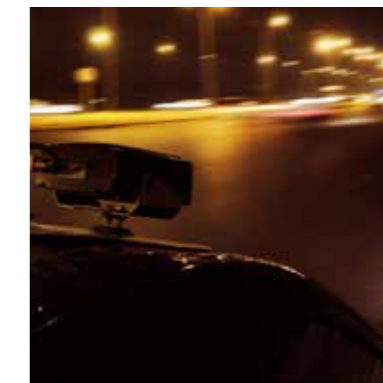
▼ Tolling

- Axle Counter
- Free Flow
- Stop & Go tolling
- Low Emission Zone



▼ Vehicle tracking

- Homeland Security
- Parking
- Access control
- ANPR Mobile



▼ Enforcement

- Speed enforcement
- Red light enforcement
- Bus lanes enforcement



# OCR

born to be international

## ▼ On field service

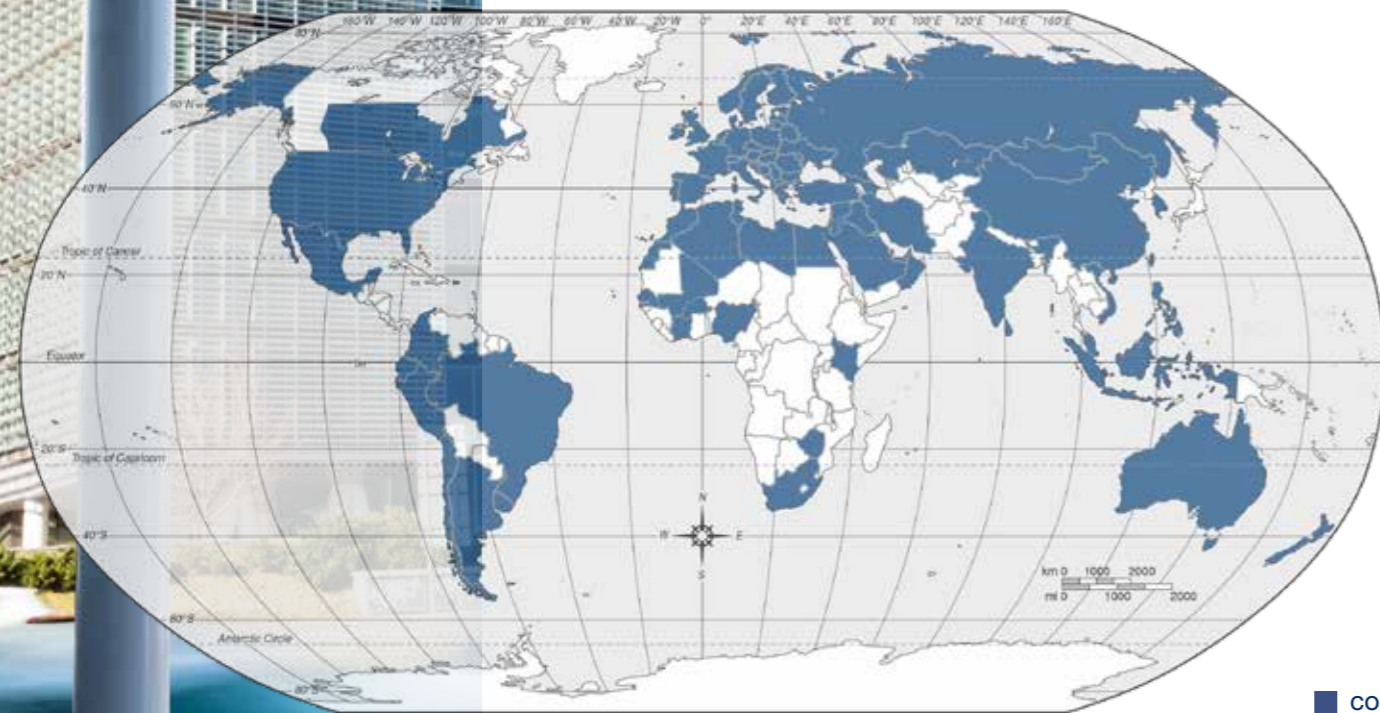
- Tattile's Field Application Engineers (FAE) are fully dedicated to assist our partners during Design, Installation and After sales
- Worldwide on-field service available for partners

## ▼ One step forward

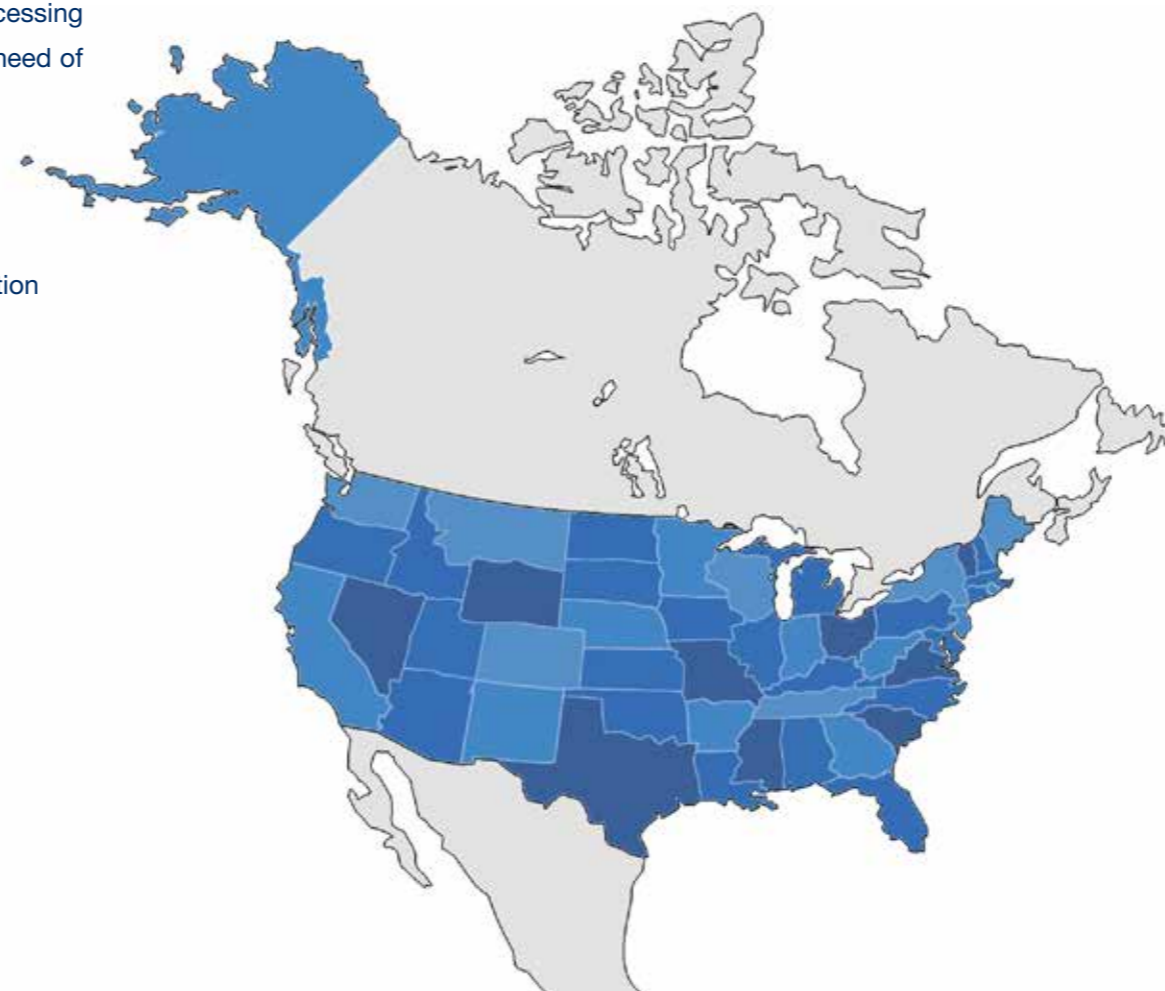
- Embedded Technology: OCR and image processing are embedded in the ANPR (ALPR) Camera (no need of extra PCs or software licenses)
- Multicore Processor
- Multi transit/second management capability
- Optional Features:
  - Embedded brand, color and model recognition
  - Embedded optical vehicles classification
  - HD video streaming
  - Auto trigger
  - Optical speed estimation

## ▼ OCR

- Tattile's OCR is developed by our internal software team (in-house development)
- Tattile offers more than 110 in-house developed OCR libraries
- New OCR libraries can be developed and tested upon request
- Tattile can handle more than one OCR library onboard each ANPR (ALPR) camera; for instance, 28 European countries are embedded in one single library
  
- New OCR libraries available for the US market
- Third parties OCR transferable on-board (no processing on external PC required)



■ countries where Tattile's Cameras are in operation



# Top Performance Hardware

## HW Scalability

▼ Embedded multicore processors

▼ High sensitivity sensors

▼ Scalable device

▼ Embedded FPGA

▼ LTE and GPS available as optionals

▼ SSD from 128GB up to 1TB according to customer needs

▼ Smart design

▼ IP68 protection grade

▼ Extended temperature range (-40°/+ 60°C | -40°/+140°F external temperature)

## Scalable hardware architecture to meet increasing workloads

▼ The hardware system has been designed using a modular approach able to receive different processors ensuring future CPU evolutions for state of the art performances.

▼ Modular Platform designed to include various sensors in order to match all the applications required by the most challenging scenarios.

▼ Scalable HW architecture to include different FPGA modules and to ensure high-speed image processing in extreme situations.

▼ Use of FPGA grants a huge processing capability for real time image processing and ANPR (ALPR) analysis.

▼ SSD from 128 GB up to 1TB (Smart family).

▼ Modular architecture allows an easy customization of the HW platform according to the complexity of the application.

▼ Devices able to detect and read non-reflective licence plate, without any external illuminator.

▼ Extra sensitive sensor mounted on Smart 2HD's context camera ensures quality images also in low light conditions (from 25 Lux).



# 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

- Standardized 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

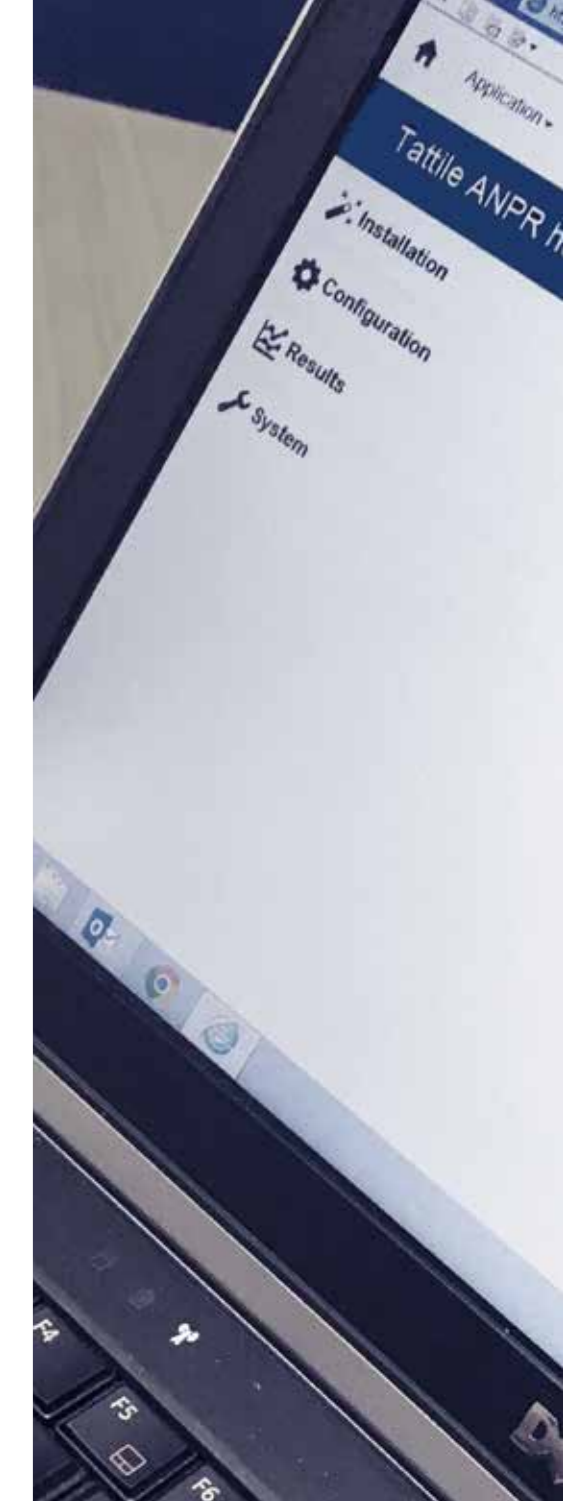
## Add-on software

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, Color and Model recognition
- B** - Inspector - Traffic data management system

		SMART			BASIC			ANPR Mobile
		2HD	Speed	Traffic Light	Short Range	Long Range	Vega1	
<b>BCCM</b>	Brand Recognition	✓	✓	✓			✓	
	Model Recognition	✓	✓	✓			✓	
	Vehicle Classification	✓	✓	✓			✓	
	Vehicle Color	✓	✓	✓			✓	
<b>Inspector Traffic data management system</b>	Average speed enforcement	✓	✓	✓	✓	✓	✓	✓
	Vehicles research	✓	✓	✓	✓	✓	✓	✓
	Origin destination	✓	✓	✓	✓	✓	✓	✓
	Geo-referenced map	✓	✓	✓	✓	✓	✓	✓
	Transit movements and traffic statistics	✓	✓	✓	✓	✓	✓	✓
	Access control	✓	✓	✓	✓	✓	✓	✓
<b>Others</b>	Self triggering based on image analysis	✓						
	Optical speed estimation	✓	✓	✓	✓	✓	✓	✓





# BCCM

## Brand, Class, Color and Model recognition

**A**

- Vehicle brand, class, color and model recognition algorithm running inside the camera
- License plate, brand, class, color and model create the so-called vehicle «fingerprint» in a single report
- All information provided by a single source
- No extra cost for external software, processing server and integration time

### Applications:

- Security
- Crime enforcement
- Tolling
- Smart City



# Inspector

## Traffic Data Manager

**B**

- Inspector is a scalable platform able to centralize the data acquired from different cameras distributed on 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), leaving the Possibility to set up different user profiles.
- Possibility 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



# ANPR solutions



Vega Smart HD p. 14

Vega Smart 2HD p. 14

Vega Smart Speed p. 16

Vega Smart Traffic Light p. 18

Axle Counter p. 22

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ANPR Mobile p. 28

# The Vega Smart Family

Automatic Number Plate Reader

*The new frontier in ITS*

- ▶ The camera has two multicore processors on board with Linux operating system

- ▶ The Vega Smart line is built on a high performance base allowing a high scalability, for high-end, multivehicle per second applications

- ▶ With embedded licence plate recognition, image analysis software, high resolution sensors, low power consumption and a web server on-board, the Vega Smart camera allows performing innovative applications

- ▶ The camera can be integrated/connected to external devices and can receive vehicle's class data from external classifier (laser-scanner, radar, loops, etc.), tag identifier from RFID antenna and vehicle's axels number data from external device

## ▶ Vega Smart Family Applications

- Multilane Free Flow
- Police enforcement
- Vehicle tracking and monitoring
- Border control
- Tax and insurance control
- Congestion charge, access control to limited traffic areas

## ▶ Included Features and Optionals

	Vega Smart HD		Vega Smart 2HD		Vega Smart Speed		Vega Smart Traffic Light	
	Incl.	Opt.	Incl.	Opt.	Incl.	Opt.	Incl.	Opt.
Double Processor	X		X		X		X	
FPGA	X		X		X		X	
OCR 5Mp Sensor	X		X		X		X	
Color Sensor			X		X		X	
Micro Sd	X		X		X		X	
Embedded Illuminator	X		X		X		X	
Radar					X			
GPS		X		X	X		X	
LTE		X		X		X		X
SSD		X		X		X		X
Linux Os	X		X		X		X	
Traffic Light Violation SW							X	
OCR	X		X		X		X	
Kemler/ADR recognition	X		X		X		X	
Autoiris	X		X		X		X	
Brand Recognition				X		X		X
Color Recognition				X		X		X
Model Recognition				X		X		X
Optical Classification				X		X		X
Third party OCR		X		X		X		X
Speed Estimation	X		X		X		X	
HD Video			X		X			X

Incl. = Included / Opt. = Optional



- ▶ Stand alone: thanks to the local buffering of information, the system is able to work also in case of disruption of data connection

- ▶ Camera designed to detect and recognise reflective and non-reflective licence plate

- ▶ New context camera color sensor capable of providing good quality images even in low light conditions (from 25 Lux)



# Vega Smart HD - Vega Smart 2HD

Free-Flow Tolling - Security

Automatic Number Plate Reader

## ▼ The Vega Smart Line

It is built over a highly performing base allowing outstanding scalability.

Optionals can be installed upon request.

Impressive capability to keep the device always updated.



## ▼ Application

- Toll collection
- Free Flow
- Traffic monitoring
- Security

	SMART HD	SMART 2HD
<b>Software features and Performance</b>		
Lane Detected	2	
Max Vehicle Speed	250 km/h - 155 mph	
Working Distance	Up to 35 m - Up to 115 ft	
Detection	99%	
Reading	>95%	
OCR	ANPR (ALPR) engine on board	
Third party OCR	optional	
Capture rate	Up to 75 fps	
Classification	NA	optional
Vehicle Color	NA	optional
Vehicle Brand	NA	optional
Vehicle Model	NA	optional
AES256	Yes	
SHA2	Yes	
Compression	JPG	
Streaming	NA	Video streaming via standard RTSP protocol
<b>Configuration</b>		
Web Server	Installation and configuration by Web Server on board	
TCP/IP Server	Configuration and monitoring through TCP/IP protocol. (SDK provided)	
Date and Hour	Synchronization via NTP protocol, IEEE1588, GPS	
Software Update	Upgrading via Web Interface and SDK	
<b>Data Transmission</b>		
FTP	FTP Client to FTP Server mode for remote data transmission; Multiple IP servers addressable	
TCP/IP	Tattile TCP/IP open protocol; (SDK provided)	
Standard protocols	XML; SNMP; NTCIP; DATEX2; UTM; ONVIF; MODBUS	
Serial Port	Insulated RS485	

## Part Numbers

Vega Smart HD	
F01760	Smart HD
F01767	Smart HD Non Reflective Plates

Vega Smart Color HD	
F01762	Smart Color HD

Vega Smart 2HD	
F01761	Smart 2HD
F01768	Smart 2HD Non Reflective Plates

Vega Smart Color 2HD	
F01765	Smart Color 2HD

	SMART HD	SMART 2HD
<b>Op. Mode</b>		
Free Run	Continuous processing with automatic vehicle detection, even without plate.	
Triggered	Image capture and processing triggered by Ethernet command or digital signal	
<b>System</b>		
ANPR (ALPR) camera	5 MPX BW 5 MPx Color (Color Version)	
Context camera	NA	2.3 Megapixel color CMOS sensor
Illuminator	12 high power LEDs	
Lenses	C-Mount. Many focal lengths available.	
Operating System	Linux Operating System	
Digital i/o	6 Optoisolated input - 4 Relay Output - 1 Strobe output	
Connectors	Waterproof circular connector	
IP Protection	Waterproof IP68	
Ethernet	GigaBit Ethernet 10/100/1000	
Storage	uSD up to 128 GB Optional HD/SSD	
GPS	Optional	
LTE	Optional	
<b>Technical Datas</b>		
Operating & Storage Temperature	From -40° to +60° C - From -40° to +140° F	
Operating & Storage Humidity	Up to 95% non condensing	
Dimensions	290 x 127 x 235 mm - 11.4 x 5 x 9.25 in (WxHxL)	
Weight	5.5 kg - 12.12 lbs	
Power supply voltage	24 Vdc	
Power consumption	50 W (max)	



# Vega Smart Speed

Speed Enforcement

Automatic Number Plate Reader

▼ **Real time detection of infringements with OCR on board**

Embedded multi tracking radar

No post-processing required

Detection of vehicles exceeding average speed or punctual speed limits

Ability to recognise every plate passing under the camera and not only violators.

This is very useful for security or statistical purposes

All transit plates are recorded and available for:

- Speed enforcement (spot/average)
- Tax and insurance control
- Vehicle tracking
- Traffic monitoring



▼ **Application**

- Enforcement
- Traffic monitoring
- Security

SMART SPEED	
<b>Software features and Performance</b>	
Lane Detected	2
Max Vehicle Speed	250 km/h - 155 mph
Working Distance	Up to 35 m - Up to 115 ft
Detection	99%
Reading	>95%
OCR	ANPR (ALPR) engine on board
Third party OCR	optional
Capture rate	Up to 75 fps
Classification	optional
Vehicle Color	optional
Vehicle Brand	optional
Vehicle Model	optional
AES256	Yes
SHA2	Yes
Compression	JPG
Streaming	Video streaming via standard RTSP protocol
<b>Configuration</b>	
Web Server	Installation and configuration by Web Server on board
TCP/IP Server	Configuration and monitoring through TCP/IP protocol. (SDK provided)
Date and Hour	Synchronization via NTP protocol, IEEE1588, GPS
Software Update	Upgrading via Web Interface and SDK
<b>Data Transmission</b>	
FTP	FTP Client to FTP Server mode for remote data transmission; Multiple IP servers addressable
TCP/IP	Tattile TCP/IP open protocol; (SDK provided)
Standard protocols	XML; SNMP; NTCIP; DATEX2; UTMIC; ONVIF; MODBUS
Serial Port	Insulated RS485

▼ **Part Numbers**

Vega Smart Speed	
F01766	Smart Speed

SMART SPEED	
<b>Op. Mode</b>	
Free Run	Continuous processing with automatic vehicle detection, even without plate
Triggered	Image capture and processing triggered by Ethernet command or digital signal
<b>System</b>	
ANPR (ALPR) camera	5 MPX BW
Context camera	2.3 Megapixel color CMOS sensor
Illuminator	12 high power LEDs, InfraRed @ 850 nm
Lenses	C-Mount. Many focal lengths available
Operating System	Linux Operating System
Digital i/o	6 Optoisolated input - 4 Relay Output - 1 Strobe output
Connectors	Waterproof circular connector
IP Protection	Waterproof IP68
Ethernet	GigaBit Ethernet 10/100/1000
Storage	uSD up to 128 GB Optional HD/SSD
GPS	Yes
LTE	Optional
<b>Technical Data</b>	
Operating & Storage Temperature	From -40° to +60° C - From -40° to +140° F
Operating & Storage Humidity	Up to 95% non condensing
Dimensions	404 x 127 x 235 mm - 15.9 x 5 x 9.25 in (WxHxL)
Weight	7.4 kg - 16.31 lbs
Power supply voltage	24 Vdc
Power consumption	50 W (max)



# Vega Smart Traffic Light

Automatic Number Plate Reader

## ▼ The new concept to safeguard the intersections

Smart Traffic Light allows the red light status identification through image analysis.

Red light violation detected by image

analysis (without external sensors), no external device required and reduced 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).

▼ Ability to recognise every plate passing under the camera and not only violators. This is very useful for security or statistical purposes

▼ All transit plates are recorded and available for:

- Red light enforcement
- Tax and insurance control
- Vehicle tracking
- Traffic monitoring

## ▼ Application

- Enforcement
- Traffic monitoring
- Security



Traffic Light Enforcement

SMART TRAFFIC LIGHT	
<b>Software features and Performance</b>	
Lane Detected	2
Max Vehicle Speed	250 km/h - 155 mph
Working Distance	Up to 25 m - Up to 82 ft
Detection	99%
Reading	>95%
OCR	ANPR (ALPR) engine on board
Third party OCR	optional
Capture rate	Up to 75 fps
Classification	optional
Vehicle Color	optional
Vehicle Brand	optional
Vehicle Model	optional
AES256	Yes
SHA2	Yes
Compression	JPG
Streaming	Video streaming via standard RTSP protocol
<b>Configuration</b>	
Web Server	Installation and configuration by Web Server on board
TCP/IP Server	Configuration and monitoring through TCP/IP protocol. (SDK provided)
Date and Hour	Synchronization via NTP protocol, IEEE1588, GPS
Software Update	Upgrading via Web Interface and SDK
<b>Data Transmission</b>	
FTP	FTP Client to FTP Server mode for remote data transmission; Multiple IP servers addressable
TCP/IP	Tattile TCP/IP open protocol; (SDK provided)
Standard protocols	XML; SNMP; NTCIP; DATEX2; UTMIC; ONVIF; MODBUS
Serial Port	Insulated RS485
SMART TRAFFIC LIGHT	

## Part Numbers

Vega Smart Traffic Light	
F01764	Smart Traffic Light
F01769	Smart Traffic Light Non Reflective Plates

<b>Op. Mode</b>	
Free Run	Continuous image capture and processing
Triggered	Image capture and processing triggered by Ethernet command or digital signal
<b>System</b>	
ANPR (ALPR) camera	5 MPX BW 5 MPx Color (color version)
Context camera	2.3 Megapixel color CMOS sensor
Illuminator	12 high power LEDs, InfraRed @ 850 nm
Lenses	C-Mount. Many focal lengths available
Operating System	Linux Operating System
Digital i/o	6 Optoisolated input - 4 Relay Output - 1 Strobe output
Connectors	Waterproof circular connector
IP Protection	Waterproof IP68
Ethernet	GigaBit Ethernet 10/100/1000
Storage	uSD up to 128 GB Optional HD/SSD
GPS	Yes
LTE	Optional
<b>Technical Data</b>	
Operating & Storage Temperature	From -40° to +60° C - From -40° to +140° F
Operating & Storage Humidity	Up to 95% non condensing
Dimensions	290 x 127 x 235 mm - 11.4 x 5 x 9.25 in (WxHxL)
Weight	5.5 kg - 12.12 lbs
Power supply voltage	24 Vdc
Power consumption	50 W (max)



Custom ANPR Solutions



# Vega Basic Family

Automatic Number Plate Reader

*Small and Performant*

- ▶ A multicore processor on board with Linux operating system

- ▶ Mainly targeted to stop & go tolling, parking and access control systems, with a maximum input power of 13W,

the Vega Basic line features a Power-over-Ethernet (POE) interface for minimizing the installation and maintenance time

- ▶ New generation full HD sensor for reading reflective and non reflective plates

## ▶ Vega Basic Family Applications

- Stop & Go tolling
- Parking
- Access control
- Urban road tracking
- Congestion charge
- Access control to limited traffic areas
- Axle counting

## ▶ Included Features and Optionals

	Vega Basic Short range	Vega Basic Long range	Vega1	
			Incl.	Opt.
Multicore Processor	X	X	X	
OCR Bw sensor	X	X	X	
OCR Color sensor (color version)	X	X		
Context color sensor			X	
Video streaming			X	
Micro Sd	X	X	X	
Linux Os	X	X	X	
OCR	X	X	X	
Kemler/ADR recognition	X	X	X	
Autoiris	X	X	X	
Speed Estimation	X	X	X	
Model Recognition				X
Class Recognition				X
Brand Recognition				X
Color Recognition				X

Incl. = Included / Opt. = Optional



- ▶ Stand alone: thanks to local buffering of information, the system is able to function also in case of disruption in the data connection

- ▶ Extra compact size to reduce the installation impact

- ▶ The Vega Basic is easy to install and does not require an external IR lighting

- ▶ Vandal proof connectors



- ▶ Vandal proof connectors

**Tattile**  
 Custom ANPR Solutions

# Axle Counter

Integrated axle counting system

## ▼ The new concept of axle counting based on Artificial Intelligence

The Axle Counter is targeted to free flow tolling applications. Its advanced embedded processing capability, based on Artificial Intelligence (AI), allows to detect and

count vehicles' axles, at any time of the day and of the 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 performances the Axle Counter is triggered by

different triggering sources, allowing 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.

Its local storage capability allows operating stand-alone in case connectivity is not available.



▼ Onboard processing

▼ Local storage

▼ Power Over Ethernet

▼ Metadata and image output

## ▼ Optional:

- GPS module
- Speed estimation

AXLE COUNTER	
<b>Software features and Performance</b>	
Lane Detected	1
Max Vehicle Speed	180 km/h - 112 mph
Installation height	6 m (typical) - 19.6 ft (typical)
Counting accuracy	>95% over 3 classes
Capture rate	Up to 50 fps
AES256	Yes
SHA2	Yes
Data buffering and storage	Yes
Compression	JPG
Speed estimation	Optional
<b>Configuration</b>	
Web Server	Installation and configuration with on board Web Server
TCP/IP Server	Configuration and monitoring through TCP/IP protocol (SDK provided)
Date and Hour	Synchronization via NTP protocol or optional internal GPS
Software Update	Upgrading via Web Interface and SDK
<b>Data Transmission</b>	
FTP	FTP Client to FTP Server mode for remote data transmission; Multiple IP servers addressable
TCP/IP	Tattile TCP/IP open protocol; (SDK provided)
Standard protocols	XML; SNMP;
Serial Port	Insulated RS485

## Part Numbers

Axle Counter System	
F01900	Axle Counter
F01912	External IR Illuminator

AXLE COUNTER	
<b>Op. Mode</b>	
Trigger Ethernet	Image capture and processing triggered by Ethernet command with Tattile TCP/IP open protocol (SDK provided)
Trigger Input	Image capture and processing triggered by digital signal start/stop
<b>System</b>	
Image capture sensor	2 Megapixel grayscale
Illuminator	External illuminator InfraRed @ 850 nm
Lenses	C-Mount. Different focal lenses available
Operating System	Linux Operating System
Digital i/o	2 Inputs - 2 Outputs - 1 Strobe output
Connectors	Waterproof circular connector
IP Protection	Waterproof IP67
Ethernet	GigaBit Ethernet 10/100/1000
Storage	uSD up to 128 GB
GPS	Optional
<b>Technical Data</b>	
Operating & Storage Temperature	From -40° to +60° C - From -40° to +140° F
Operating & Storage Humidity	Up to 95% non condensing
Dimensions	187 x 103,5 x 216 mm - 7.4 x 4.1 x 8.5 in (WxHxL)
Weight	5 kg - 11 lbs
Power supply voltage	24 Vdc, PoE+
Power consumption	15 W (max)

Tattile Custom ANPR Solutions

# Vega1

Automatic Number Plate Reader

▼ **The Vega1** is a dual channel camera built in a compact case.

It is mainly targeted to single lane vehicle tracking, traffic limited areas and priority lanes. Its high sensitivity image sensors are available for ANPR (ALPR) reading, video streaming even in extreme and low light conditions.

The camera allows an easy setup to minimize the installation and maintenance time. Thanks to its local storage, it can work stand alone in case the connectivity is not available.

The Vega1 is compact, easy to install and does not require an external IR lighting. The extra compact case reduces installation impact.



▼ ANPR (ALPR) onboard

▼ Local storage

▼ Speed estimation

▼ Video streaming

## ▼ Applications:

- Single lane road tracking
- Surveillance and access control
- Congestion charge
- Limited traffic areas, priority lanes

## ▼ Optional functionalities:

- GPS
- LTE
- Vehicle brand
- Vehicle class
- Vehicle color
- Vehicle model

VEGA1	
<b>Software features and Performance</b>	
Lane Detected	1
Max Vehicle Speed	200 km/h - 124 mph
Working Distance	Up to 25 m - Up to 82 ft
Detection	99%
Reading	>95%
OCR	ANPR (ALPR) engine on board
Third party OCR	optional
Capture rate	Up to 60 fps
Classification	optional
Vehicle Color	optional
Vehicle Brand	optional
Vehicle Model	optional
AES256	Yes
SHA2	Yes
Compression	JPG
Streaming	Color video streaming via standard RTSP protocol
<b>Configuration</b>	
Web Server	Installation and configuration with on board Web Server
TCP/IP Server	Configuration and monitoring through TCP/IP protocol. (SDK provided)
Date and Hour	Synchronization via NTP protocol, IEEE1588, GPS
Software Update	Upgrading via Web Interface and SDK
<b>Data Transmission</b>	
FTP	FTP Client to FTP Server mode for remote data transmission; Multiple IP servers addressable
TCP/IP	Tattile TCP/IP open protocol; (SDK provided)
Standard protocols	XML; SNMP; NTCIP; DATEX2; UTM; ONVIF; MODBUS
Serial Port	Insulated RS485

VEGA1	
Op. Mode	
Free Run	Continuous image capture and processing
Triggered	Image capture and processing triggered by Ethernet command or digital signal
<b>System</b>	
ANPR (ALPR) camera	Up to 3 Megapixel grayscale sensor
Context camera	Up to 3 Megapixel color sensor
Illuminator	10 high power LEDs, InfraRed @ 850 nm
Lenses	C-Mount. Many focal lengths available.
Operating System	Linux Operating System
Digital i/o	2 Inputs - 2 Outputs - 1 Strobe output
Connectors	Waterproof circular connector
IP Protection	Waterproof IP67
Ethernet	GigaBit Ethernet 10/100/1000
Storage	uSD up to 128 GB
GPS	Optional
LTE	Optional, external
<b>Technical Data</b>	
Operating & Storage Temperature	From -40° to +60° C - From -40° to +140° F
Operating & Storage Humidity	Up to 95% non condensing
Dimensions	187 x 103,5 x 216 mm - 7.4 x 4.1 x 8.5 in (WxHxL)
Weight	5 kg - 11 lbs
Power supply voltage	24 Vdc or PoE+ 802.3at Type2
Power consumption	15 W (max)

## Part Numbers

Vega 1	
F01870	Vega 1 Long Range
F01872	Vega 1 Short Range

Tattile Custom ANPR Solutions





# Vega Basic Short Range - Long Range

Automatic Number Plate Reader

▼ **The Vega Basic Line** is built around a small and compact case

POE allows a single wire connection

Optionals can be installed upon request

Impressive capability to keep the device always updated

Available in BW and Color version

	BASIC SHORT RANGE	BASIC LONG RANGE
<b>Software features and Performance</b>		
Lane Detected	1	
Max Vehicle Speed	70 km/h - 44 mph	150 km/h - 93 mph
Working Distance	Up to 8 m - Up to 26 ft	Up to 25m - Up to 82 ft
Detection	99%	
Reading	>95%	
OCR	ANPR (ALPR) engine on board	
Capture rate	Up to 60 fps	
AES256	Yes	
SHA2	Yes	
Compression	JPG	
<b>Configuration</b>		
Web Server	Installation and configuration by Web Server on board	
TCP/IP Server	Configuration and monitoring through TCP/IP protocol. (SDK provided)	
Date and Hour	Synchronization via NTP protocol, IEEE1588	
Software Update	Upgrading via Web Interface and SDK	
<b>Data Transmission</b>		
FTP	FTP Client to FTP Server mode for remote data transmission; Multiple IP servers addressable	
TCP/IP	Tattile TCP/IP open protocol; (SDK provided)	
Wiegand	Yes	
Standard protocols	XML; SNMP; NTCIP; DATEX2; UTMC; MODBUS	
Serial Port	Insulated RS485	



	BASIC SHORT RANGE	BASIC LONG RANGE
<b>Op. Mode</b>		
Free Run	Continuous image capture and processing	
Triggered	Image capture and processing triggered by Ethernet command or digital signal	
<b>System</b>		
ANPR (ALPR) camera	2 MPX BW	
	2 MPx Color (Color Version)	
Illuminator	8 high power LEDs, InfraRed @ 850 nm	
Lenses	C-Mount. Many focal lengths available	
Operating System	Linux Operating System	
Digital i/o	2 Optoisolated input - 2 Relay Output - 1 Strobe output	
IP Protection	Waterproof IP67	
Ethernet	GigaBit Ethernet 10/100/1000	
Storage	uSD up to 128 GB	
Vandal proof Connector	Yes	
<b>Technical Data</b>		
Operating & Storage Temperature	From -40° to +60° C - From -40° to +140° F	
Operating & Storage Humidity	Up to 95% non condensing	
Dimensions	178 x 90 x 133 mm - 7 x 3.5 x 5.2 in (WxHxL)	
Weight	1.5 kg - 3.3 lbs	
Power supply voltage	24 Vdc, PoE	
Power consumption	12 W (max)	

## Part Numbers

<b>Vega Basic</b>	
F01750	Basic short range
F01752	Basic long range
<b>Vega Basic Color</b>	
F01751	Basic color short range
F01753	Basic color long range

## Parking Access Control - Stop & Go Tolling

▼ **The Vega Basic Short Range** can read up to 8 meters-26 ft far at 70km/h-44 mph max speed

▼ **The Vega Basic Long Range** can read up to 25 meters-82 ft far at 150km/h-93 mph max speed




  
 Custom ANPR Solutions



# ANPR Mobile

Automatic Number Plate Reader

## 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 specialized operational departments and/or intelligence services, 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. It is part of the sophisticated Tattile ANPR/ALPR (Automatic Number Plate Reader) All On Board camera family, to read license plates in movement.



Wi-Fi data transmission from the unit to the pc/tablet

GPS on board

Embedded licence plate analysis (OCR on board)

Real time processing: up to 60 fps

## Software Features

	ANPR Mobile
<b>Licence Plate Recognition</b>	
<b>OCR</b>	ANPR (ALPR) engine on board
<b>Capture rate</b>	Up to 60 fps
<b>Configuration</b>	
<b>Web Server</b>	Installation and configuration by Web Server on board
<b>TCP/IP Server</b>	Configuration and monitoring through TCP/IP protocol
<b>Date and Hour</b>	Synchronization via SNTP protocol or GPS
<b>Software Update</b>	Upgrading via Web Interface and SDK
<b>Data Transmission</b>	
<b>FTP</b>	FTP Client to FTP Server mode for remote data transmission; two IP address management
<b>TCP/IP</b>	Tattile TCP/IP open protocol; two IP address management
<b>Streaming</b>	Video streaming via standard RTSP protocol
<b>Operating Mode</b>	
<b>Free Run</b>	Continuous processing with automatic plate detection

## Technical Data

	ANPR Mobile
<b>System</b>	
<b>ANPR (ALPR) camera</b>	1920 x 1080 Monochrome CMOS sensor
<b>Context camera</b>	1920 x 1080 Color CMOS sensor
<b>Illuminator</b>	Short range: 6 LEDs High power infrared @ 850nm Medium/long range: 10 LEDs High power infrared @ 850nm
<b>Lenses</b>	C-Mount. Many focal length available
<b>Operating System</b>	Linux
<b>Connectors</b>	Waterproof circular connector
<b>Network</b>	Fast Ethernet 10/100 and WiFi 802.11 b/g/n
<b>Storage</b>	Up to 128 GB
<b>Environment, Size, Power</b>	
<b>Operating &amp; Storage Temperature</b>	From -30° to +60° C / -22° to +140° F
<b>Operating &amp; Storage Humidity</b>	Up to 95% non condensing
<b>Dimensions</b>	178 x 76 x 141 mm - 7 x 3 x 5.5 in (WxHxL)
<b>Weight</b>	1,650 Kg - 3.63 lbs
<b>Protection</b>	Waterproof IP66/IP67
<b>Power supply voltage</b>	12 Vdc
<b>Power consumption</b>	15 W

## Part Numbers

ANPR Mobile	
<b>F01710</b>	ANPR MOBILE SYSTEM short range
<b>F01845</b>	ANPR MOBILE SYSTEM medium range
<b>F01696</b>	ANPR MOBILE SYSTEM long range







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