



TRAFFIC DIVISION



# ANPR solutions for ITS applications



Since 1988 Tattile develops and produces Vision
Systems, for quality inspection on production lines and
ANPR cameras for ITS applications.

A high-tech company with a strong international outlook. We have always distinguished ourselves, thanks to our sharp innovation capacity and to the collaborative spirit, which animates the entire organization.

- Today Tattile is a completely renovated company, placed on sound financial basis, projected with enthusiasm to future vision scenarios, enriched by a new management team fully dedicated to include state of the art technology into our products.
- Strong international projection, more than 70% of our turnover is realised outside Italy (of which 50% in Europe and 50% rest of the world), thanks to a network of top class international System Integrators and local partners.

Innovation, Customer Orientation and Flexibility are the main values of our organization. In Tattile, we are fully devoted to understand our partner's needs, in order to provide innovative solutions, shaped accordingly to each specific situation or request.

We are fully engaged in the creation of cutting edge ANPR Cameras, able to fulfil the most demanding applications in the ITS market worldwide, always in compliance with strict quality standards, ensuring reliability and operating cost efficiency.

Operations: thanks to last generation tools in both Material Management and Production Planning (SAP BusinessOne®) and to a dedicated team of engineers, we implemented an extremely lean and responsive Supply Chain model, which enables us to achieve very short and competitive delivery times even for high volume tenders, without sacrificing costeffectiveness.





## R&D

# Synergy and innovation for cutting-edge ITS applications

#### **₹** R&D

Tattile's R&D Department employs a team of over thirty dynamic engineers with expertise in hardware-software design and in optics and mechanical integration.

Thanks to the synergy between these skills, to the constant attention, to the innovation spirit and to the active collaboration with leading European universities, we are able to develop cutting-edge ANPR Cameras for ITS applications.

Powerful and reliable hardware, easy to use software, maximum integration and flexibility are the strengths of our systems; cameras designed for severe settings typical of ITS (Intelligent Transportation Solutions) systems.

The experience of Tattile R&D team enables us to collect new challenges, ensuring customer the safety of a technological partner, which is able to meet the most demanding needs in the field of ANPR Cameras and OCR software.





#### R&D - hardware

- Flexible and Fast, thanks to the competence to design PCBA and to programming FPGA to develop product according to market new requirements
- State of the Art Performance, designing embedded systems with Multi Core CPU (ARM, x86) with High Integration with Software development to exploit every single component
- Consistent with the competence of EMC and EMI oriented design and the extended know how for Design for Testing to guarantee a High Quality Level
- Innovative with capacity to improve our knowhow and embed Edging Technologies (e.g. Hyperspectral, TOF) on our machine in an easy and quick way to give always a leading product

#### R&D - software

- Complete and Flexible with the strong knowhow in the most important OS (Windows, Linux, Android) and the different languages (C, C++, ...) to exploit Hardware for every single application
- Open, thanks to capacity integrate in an very easy way
   3rd parties Software and Open Libraries to exploit the
   best in class world knowledge
- Lean and Performant, thanks to our capacity to design and tailor brand new algorithms on the most powerful Hardware sets
- Innovative with the capacity to embed Academies and Start-ups know how in our open Software architecture



# OCR

### born to be international

#### On field Service

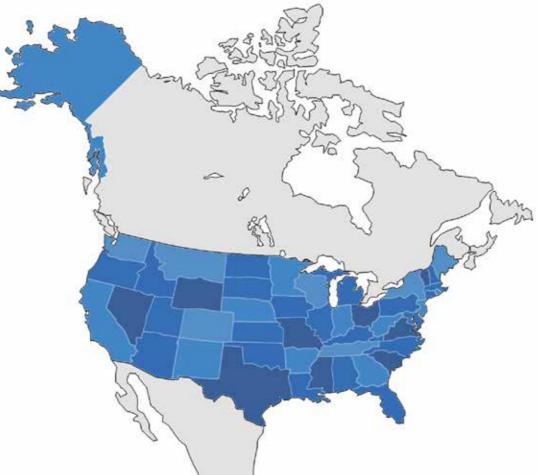
- Tattile's Field Application Engineers (FAE) are fully dedicated to assist our partners during Design, Installation and After sales
- Worldwide on-field service available for partners

#### One step forward

- Embedded Technology: OCR and image processing are embedded in the ANPR Camera (no need of extra PCs or software licenses)
- Multicore Porcessors
- Multi transit/second management capability
- Optional Features:
  - Two on-board Licence plate recognition sw
  - Embedded brand and color recognition
  - Embedded optical vehicles classification
  - Hd video streaming
  - Auto trigger
  - Optical speed estimation

#### OCR

- Tattile's OCR is fully developed by our internal software team (in-house development)
- Tattile offfers more than 110 in-house developed OCR libraries
- New OCR libraries can be developed and tested by request
- Tattile can handle more than one OCR country on each ANPR 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 requested)







# Top Performance Hardware High sensitivity sensors Tembedded multicore processors ■ Embedded FPGA

### HW Scalability

Scalable device

optionals

▼ Smart design

■ IP68 protection grade

temperature)

Textended temperature range (-40°C / + 55°C external

■ LTE and GPS available as

SSD from 128GB up to 1TB

according to customer needs

#### 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 welcome various sensors in order to match all the applications requested by the most challenging scenarios.
- Scalable HW architecture to welcome different FPGA modules and to ensure high-speed image processing in harsh situation.
- Use of FPGA grants a huge processing capability for real time image processing and ANPR analysis

- SSD from 128 GB up to 1TB (Smart family)
- Modular architecture allows an easy customization of the HW platform according to complexity of the application.
- Device able to detect and read NO reflective licence plate, without any external illuminator.
- Textra sensitive sensor mounted on Smart 2HD's context camera ensures quality images also in low light conditions (from 25 Lux).





# Top Performance Software

### SW Scalability

- **▼** Linux OS
- Optional App-like software available to enhance device performances
- Camera SW can be upgraded from remote
- Our Linux platform welcomes third-party algorithms to be embedded directly on-board
- Standardized interface allows future system upgrades without significant reworks
- Plug-and-play interfaces make the new HW fully compatible with Tattile's previous ANPR cameras
- ▼ Proprietary OCR SW
- Auto iris SW to adjust camera image acquisition according to external light conditions
- SDK available for easy integration
- Proprietary App for remote configuration

		BASIC SHORT RANGE	BASIC LONG RANGE	SMART FAMILY
200	Double OCR			-
nres	Non reflecting plate		-	
Feat	Speed estimation	-	-	
ged	Colured Plate	-	•	-
Included Features	Easy to Install	•	•	-
	Brand Recognition		-	
	Model Recognition	-	•	
es	Vehicle Classification	•	-	-
eatur	Vehicle Color	-	•	
Optional Features	Hd Video			
ptior	Context Camera			
5	SSD			
	GPS / Wi-Fi / LTE Communication			•
	Autotrigger 2.0			

### Additional functional (App-like) packages, enlarge the camera features

- A Vehicle Brand, Class and Color recognition
- B Two different OCRs on board
- **C** Auto trigger software 2.0
- **D** Speed estimation using image analysis
- **E** HD Streaming for video surveillance
- **F** Easinstall App for remote cameras configuration

- The additional Apps transform the camera from a standard plate reader to a smart vehicles analyser and a security system
- The optional Apps can be uploaded on demand, including once the camera is already in operation
- Install pack uploadable via remote connection

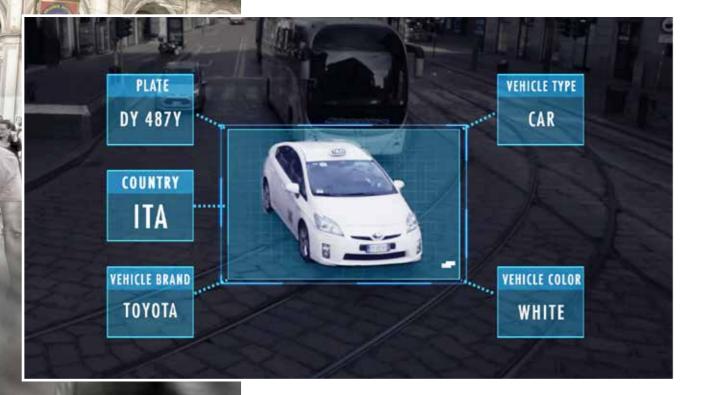


8

### SW Scalability

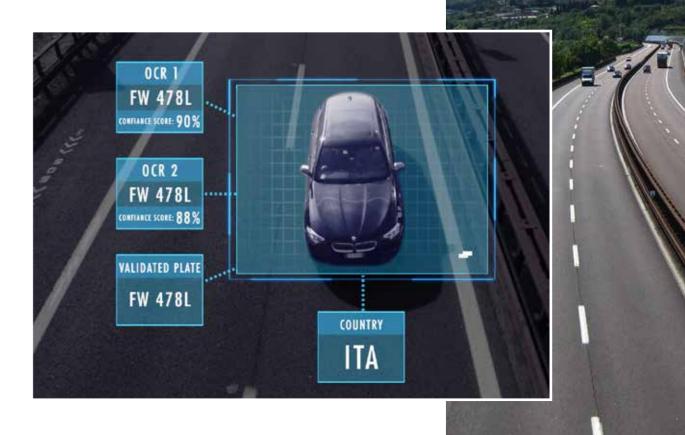
A Brand, Class and Color recognition

New frontier in vehicles identification



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

- B Double OCR Accuracy - Accuracy - Accuracy
- The Smart camera can simultaneously run two different OCRs on-board
- Real-time licence plate identification done by two different software
- A sophisticated algorithm matches the two results selecting the correct one
- Validated licence plate data output directly from the camera





### SW Scalability

- C Autotrigger 2.0
  No vehicle lost
- The embedded auto trigger improves the camera detection rate
- The image analysis algorithm detects vehicles up to 250 km/h without any external trigger
- Capability to provide images of every vehicle, even without licence plate
- D Speed estimation Speed by image
- Embedded proprietary algorithm able to provide a vehicle's speed Estimation (error +-5%) using image analysis only
- The SW provide a reliable vehicles speed estimation without any external device

- E Hd video from context camera Video Surveillance at a glance
- Vega Smart 2 HD can use its increased processor capability to provide a video streaming, directly taken from the context camera
- Video is RTSP and ONVIF compliant
- Camera can stream video 24/7 without interfering with the plate recognition process
- Advantages:
- A single camera for two different applications (ANPR + CCTV)
- Important savings on the installation and maintenance side
- Reduced urban architectural impact (only one camera instead of two)

### Easinstall AppQuick and fast camera configuration

Tattile proprietary App for a quick and fast installation, the essential time-saving tool for any installer

- Main functionalities:
  - Discover available cameras via Wifi, 3G/4G
  - Connection to a camera via SSID (Service Set Identifier) / Hidden SSID
  - Take a screenshot of the ANPR camera
  - Remote update / Clear of the camera's public keys
- App is available in Android and Apple stores

- Send email directly to technical support
- Create Hotspot connection
- Support Web view
- Scan (the) QR Code





### Applications



#### Tolling System

- Free Flow tolling (Vega Smart HD/2HD)
- Stop & Go tolling (Vega Basic Short Range)
- LTZs (Limited Traffic Zones) (Vega Basic Long Range)

#### Enforcement System

- Speed enforcement (Vega Smart Speed)
- Red light enforcement (Vega Smart Traffic Light)
- Priority lanes (Vega Basic long Range)

#### Vehicle Tracking

- ANPR & Tracking (Vega Basic Long Range / Vega Smart HD/2HD)
- Parking & Access Control (Vega Basic Short Range)

#### Police Enforcement

- ANPR Mobile
- Security (Vega Smart HD/2HD)





Vega Smart HD p. 18 Vega Smart 2HD p. 18

Vega Smart Speed p. 20

Vega Smart Traffic Light p. 22

Vega Basic p. 24

ANPR Mobile p. 28

Traffic Light p. 30

Vega Speed p. 32

Vega 2HD p. 34

Vega HD p. 34

Vega HD Color p. 34

Vega Color p. 38

Vega III p. 38

Vega Access p. 42

The camera has two

system

multicore processors on

board with Linux operating

### The Vega Smart Family

Automatic Number Plate Reader

The Vega Smart line is built over a very performing 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
- 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 No reflective licence plate
- New context camera color sensor capable to provide good quality image even in low light conditions (from 25 Lux)

#### 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

		nart HD & Color	Vega Sn	nart 2HD		Smart eed		art Traffic ght
	Incl.	Opt.	Incl.	Opt.	Incl.	Opt.	Incl.	Opt.
Double Processor	Х		Х		X		Х	
Fpga	Х		Х		Х		Х	
OCR 5Mp Sensor	Х		Х		Х		Х	
Color Sensor			Х		Х		Х	
Micro Sd	Х		Х		Х		Х	
Embedded Illuminator					Х		х	
Radar					Х			
Gps		Х		Х		Х		Х
Lte		Х		Х		Х		Х
Ssd		Х		Х		Х		Х
Linux Os	Х		Х		Х		Х	
Traffic Light Violation Sw							х	
Traffic Lamp Color Detection							х	
OCR	Х		Х		Х		Х	
Autoiris	Х		Х		Х		Х	
Easinstall App	Х		Х		Х		Х	
Brand Recognition		Х		Х		Х		Х
Color Recognition		Х		Х		Х		Х
Model Recognition		Х		Х		Х		Х
Optical Classification		Х		Х		Х		Х
Second Level OCR		Х		Х		Х		Х
Speed Estimation		Х		Х		Х		Х
Hd Video				Х		Х		Х

Incl. = Included / Opt. = Optional

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16

### Vega Smart HD - Vega Smart HD Color - Vega Smart 2HD

Automatic Number Plate Reader

#### The Vega Smart Line

is built over a highly performing base allowing outstanding scalability.

Optionals can be installed on demand.

Impressive capability to keep the device Always updated.



#### Application

- Toll collection
- Free Flow
- Traffic monitoring
- Security

	SMART HD	SMART 2HD			
Software features and Pe	erformance				
Lane Detected	2				
Max Speed Detected [km/h]	250				
Working Distance [m]	up to	o 25			
Detection	99	%			
Reading	>95	5%			
OCR	ANPR engir	ne on board			
2nd Lever OCR	opti	onal			
Grabbing	75	fps			
Classification	opti	onal			
Vehicle Color	NA	optional			
Vehicle Maker	optio	onal			
Vehicle Model	optional				
AES256	Yes				
SHA2	Yes				
Compression	JF	PG			
Streaming	NA	Color video streaming H.264 via standard protocol RTSP			
Configuration					
Web Server	Installation and configuration	on by Web Server on board			
TCP/IP Server	Configuration and monitoring (SDK pr	0 0 1			
Date and Hour	Synchronization via NTP	protocol, IEEE1588, GPS			
Software Update	Upgrading via Web	Interface and SDK			
Data Transmission					
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; UTMC; ONVIF; MODBUS				
Serial Port	Insulated	d RS485			

	SMART HD	SMART 2HD	
Op. Mode			
Free Run	Continuous processing with automatic vehicle detection, even without plate.		
Triggered	Image capture and proces command or	sing triggered by Ethernet digital signal	
System			
ANPR camera	5 MP.	X BW	
	5 MPx Color (	Color Version)	
Context camera	NA	MegaPixel Color CMOS sensor	
Illuminator	12 high po	ower LEDs	
Lenses	C-Mount. Many foc	al lengths available.	
Operating System	Linux Opera	ting System	
Digital i/o	6 Optoisolated input - 4 Rela	ay Output - 1 Strobe output	
Connectors	Waterproof circular connector		
IP Protection	Waterproof IP68		
Ethernet	GigaBit Ethernet 10/100/1000		
Storage	uSD up to 128 GB		
Otorage	HD/SSD up to 1 TB		
GPS	Opti	onal	
LTE	Opti	onal	
WiFi (Easinstall)	Ye	es	
Technical Datas			
Operating & Storage Temperature	From -40°	to +55° C	
Operating & Storage Humidity	From 10% to 90%	6 non condensing	
Dimensions	290 x 127 x 23	5 mm (WxHxL)	
Weight [kg]	5.5		
Power supply voltage	24 Vdc		
Power consumption	50 W	(max)	

#### Part Numbers

Vega Smart HD	ga Smart HD		
F01760	Smart HD		
Vega Smart 2H	ega Smart 2HD		
F01761	Smart 2HD		
Vega Smart Color HD F01762 Smart Color HD			



### Vega Smart Speed

Automatic Number Plate Reader

Real time detection of infringements with OCR on board

Embedded multi tracking radar

No post-processing requested

Detection of vehicles infringing average speed limits or punctual speed

Capability to recognise every plate(s) (not only violators'), very useful for security 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					
Software features and Performance						
Lane Detected	2					
Max Speed Detected [km/h]	250					
Working Distance [m]	up to 25					
Detection	99%					
Reading	>95%					
OCR	ANPR engine on board					
2nd Lever OCR	optional					
Grabbing	75 fps					
Classification	optional					
Vehicle Color	optional					
Vehicle Maker	optional					
Vehicle Model	optional					
AES256	Yes					
SHA2	Yes					
compression	JPG					
Streaming	Color video streaming H.264 via standard protocol RTSP					
Configuration						
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					
Data Transmission						
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; UTMC; ONVIF; MODBUS					
Serial Port	Insulated RS485					

	SMART SPEED	
Op. Mode	CIVIALITI OF ELD	
Free Run	Continuous processing with automatic vehicle detection, even without plate	
Triggered	Image capture and processing triggered by Ethernet command or digital signal	
System		
ANPR camera	5 MPX BW	
	5 MPx Color (color version)	
Context camera	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	
	HD/SSD up to 1 TB	
GPS	Optional	
LTE	Optional	
WiFi (Easinstall)	Yes	
Technical Datas		
Operating & Storage Temperature	From -40° to +55° C	
Operating & Storage Humidity	From 10% to 90% non condensing	
Power supply voltage	24 Vdc	
Power consumption	50 W (max)	

20

### Vega Smart Traffic Light

Automatic Number Plate Reader

The new concept to safeguard the intersections

SMART TL2L allows the red light status identification through image analysis.

Red light violation detected by image analysis (without external sensors), no

external device requested 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) Capability to recognise every plate (not only violators'), very useful for security purposes;

All transit plates are recorded and availabel for:

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



#### Application

- Enforcement
- Traffic monitoring
- Security

	SMART TRAFFIC LIGHT					
Software features and Performance						
Lane Detected	2					
Max Speed Detected [km/h]	250					
Working Distance [m]	up to 25					
Detection	99%					
Reading	>95%					
OCR	ANPR engine on board					
2nd Lever OCR	optional					
Grabbing	75 fps					
Classification	optional					
Vehicle Color	optional					
Vehicle Maker	optional					
Vehicle Model	optional					
AES256	Yes					
SHA2	Yes					
compression	JPG					
Streaming	Color video streaming H.264 via standard protocol RTSP					
Configuration						
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					
Data Transmission						
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; UTMC; ONVIF; MODBUS					
Serial Port	Insulated RS485					

	SMART TRAFFIC LIGHT	
Op. Mode		
Free Run	Continuous processing with automatic vehicle detection, even without plate.	
Triggered	Image capture and processing triggered by Ethernet command or digital signal	
System		
ANPR camera	5 MPX BW	
	5 MPx Color (color version)	
Context camera	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	
Storage	HD/SSD up to 1 TB	
GPS	Optional	
LTE	Optional	
WiFi (Easinstall)	Yes	
Technical Datas		
Operating & Storage Temperature	From -40° to +55° C	
Operating & Storage Humidity	From 10% to 90% non condensing	
Dimensions	290 x 127 x 235 mm (WxHxL)	
Weight [kg]	5.5	
Power supply voltage	24 Vdc	
Power consumption	50 W (max)	

### Small and Performant

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
- 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

#### Vega Basic Family Applications

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

#### Included Features and Optionals

	Vega Basic Short range		Vega Basic Long range	
	Incl.	Opt.	Incl.	Opt.
Multicore Processor	Х		Х	
Fpga	Х		Х	
Bw 2Mp sensor	Х		Х	
Color 2Mp sensor (for color version)	Х		Х	
Micro Sd	Х		Х	
Linux Os	Х		Х	
OCR	Х		Х	
Autoiris	Х		Х	
Easinstall App	Х		Х	
Speed Estimation	Х		Х	
Model Recognition		Х		Х
Class Recognition		Х		Х
Brand Recognition		Х		Х
Color Recognition		Х		Х

Incl. = Included / Opt. = Optional



■ Vandal proof connectors

24

A multicore processor

on board with Linux

operating system



26

### Vega Basic Short Range - Long Range

Parking Access Control - Stop & Go Tolling

Automatic Number Plate Reader

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

POE allow a single wire connection

Optionals can be installed on demand

Impressive capability to keep the device always updated

Available in BW and Color version



	BASIC SHORT RANGE	BASIC LONG RANGE			
Software features and Pe	erformance				
Lane Detected 1					
Max Speed Detected [km/h]	70	150			
Working Distance [m]	up to 8	up to 25			
Detection	99	%			
Reading	>95	5%			
OCR	ANPR engir	ne on board			
2nd Lever OCR	not ava	ailable			
Grabbing	60	fps			
Classification	optio	onal			
Vehicle Color	optional (co	olor version)			
Vehicle Maker	optional				
Vehicle Model	optional				
AES256	Yes				
SHA2	Y€	es			
Compression	JP	G			
Configuration					
Web Server	Installation and configuration	on by Web Server on board			
TCP/IP Server	Configuration and monitoring (SDK pr	0 1			
Date and Hour	Synchronization via N7	ΓP protocol, IEEE1588			
Software Update	Upgrading via Web	Interface and SDK			
Data Transmission					
FTP	FTP Client to FTP Server mode for remote data transmission; Multiple IP servers addressable				
TCP/IP	Tattile TCP/IP open pro	otocol; (SDK provided)			
Wiegand	Ye	es			
Standard protocols	XML; SNMP; NTCIP; DA	TEX2; UTMC; MODBUS			
Serial Port	Insulated RS485				

	DAGIO GUODE DANGE	DAGIO I ONO DANOE		
	BASIC SHORT RANGE	BASIC LONG RANGE		
Op. Mode				
Free Run	Continuous processing with automatic vehicle detection			
	even with	•		
Triggered	Image capture and proces	0 00 ,		
Ot	command or	ulgital signal		
System	0.145	( D) ( )		
ANPR camera	2 MP			
	2 MPx Color (	Color Version)		
Illuminator	8 high power LEDs,	InfraRed @ 850 nm		
Lenses	CS-Mount. Many for	cal lengths available		
Operating System	Linux Opera	ting System		
Digital i/o	2 Optoisolated input - 2 Rela	ay Output – 1 Strobe output		
Connectors	Safe Connector			
IP Protection	Waterproof IP67			
Ethernet	GigaBit Ethernet 10/100/1000			
Storage	uSD up to 128 GB			
WiFi (Easinstall)	Y€	es		
Vandal proof Connector	Ye	es		
Technical Datas				
Operating & Storage	From -40°	to ±55° C		
Temperature	110111 40			
Operating & Storage Humidity	From 10% to 90% non condensing			
Dimensions	178 x 90 x 133	mm (WxHxL)		
Weight [kg]	1.	,		
Power supply voltage	24 Vdc, PoE			
Power consumption	13 W (max)			
. Citor consumption	10 44	inary		

#### **Part Numbers**

Vega Basis	
Vega Basic	
F01750	Basic short range
F01752	Basic long range
Vega Basic Color	
F01751	Basic color short range
F01753	Basic color long range

can read up to 8 meters far at 60km/h max speed

The Vega Basic Short Range

The Vega Basic Long Range
can read up to 25 meters far at 150km/h max speed



### ANPR Mobile

Police Enforcement - Crime Prevention

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 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 a 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 (Automatic Number Plate Reader) All On Board camera family, to read license plates in movement.



Gps on board

Embedded licence plate analysis (Ocr on board)

Real time processing: up to 60 fps

#### Software Features

	ANPR Mobile		
Licence Plate Recognition			
CPU	ANPR engine on board		
Grabbing	Up to 60 fps		
Configuration			
Web Server	Installation and configuration by Web Server on board		
TCP/IP Server	Configuration and monitoring through TCP/IP protocol		
Date and Hour	Synchronization via SNTP protocol or GPS		
Software Update	Upgrading via Web Interface and SDK		
Data Transmission			
FTP	FTP Client to FTP Server mode for remote data transmission; two IP address management		
TCP/IP	Tattile TCP/IP open protocol; two IP address management		
Video Streaming			
H.264/MPEG4	Color video streaming H.264 or MPEG4		
Operating Mode			
Free Run	Continuous processing with automatic plate detection		

#### **Technical Data**

	ANPR Mobile		
System			
ANPR camera	1920 x 1080 Monochrome CMOS sensor		
Context camera	1920 x 1080 Color CMOS sensor		
Illuminator	6 high power LEDs, InfraRed @ 850 nm		
Lenses	C-Mount. Many focal length available		
Operating System	Linux		
Connectors	Waterproof circular connector		
Network	Fast Ethernet 10/100 and WiFi 802.11 b/g/n		
Storage	Up to 32 GB		
Environment, Size, Power			
Operating & Storage Temperature	From -30° to +55° C		
Operating & Storage Humidity	From 10% to 90% non condensing		
Dimensions	178 x 141 x 76 mm (LxWxH)		
Weight	1,650 Kg		
Protection	Waterproof IP66		
Power supply voltage	12 Vdc		
Power consumption	15 W		

#### **Part Numbers**

ANPR Mobile	
F01589	ANPR MOBILE SYSTEM Advanced Transverse
F01590	ANPR MOBILE SYSTEM Advanced Longitudinal
F01653	ANPR MOBILE SYSTEM Advanced Longitudinal 2x16mm
F01622	ANPR MOBILE SYSTEM Advanced 2 Megapixel Longitudinal

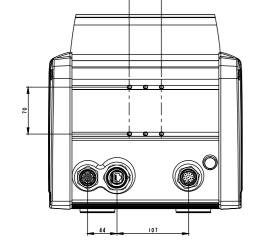
28

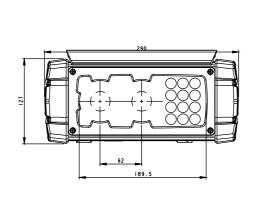
Wi-fi data transmission from

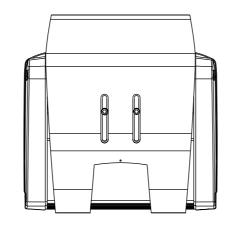
the unit to the pc/tablet

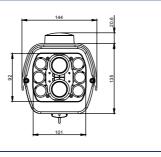
### Technical Drawings

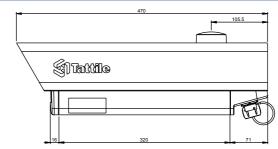
#### Vega Smart

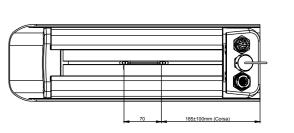








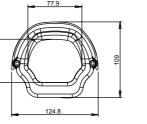


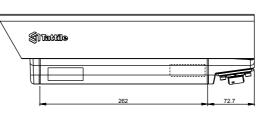


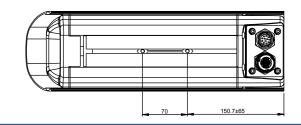
Vega Access

Vega Speed

Traffic Light



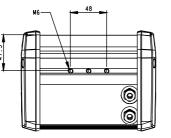


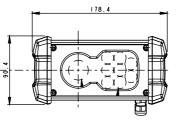


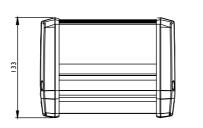
Vega Basic

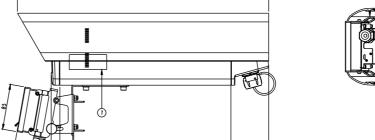


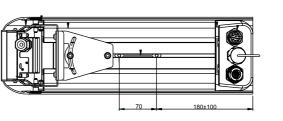


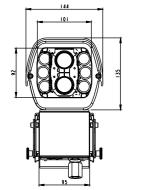


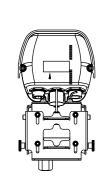




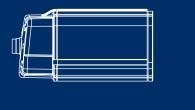


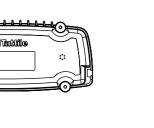


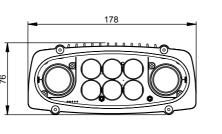


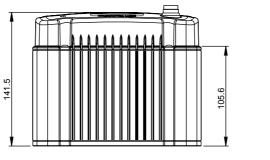


ANPR Mobile



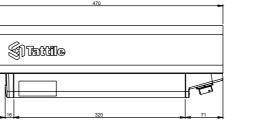


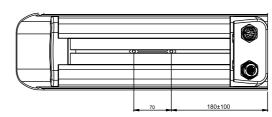


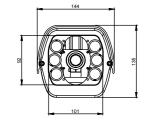




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