Tattile

Custom ANPR Solutions

TRAFFIC
DIVISION

Tattile
Custom ANPR Solutions

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 derived from overseas (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 understanding 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 allows us to achieve very short and competitive delivery times even for high volume tenders without sacrificing cost-effectiveness.

OCR

◤ 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 Processor
- 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
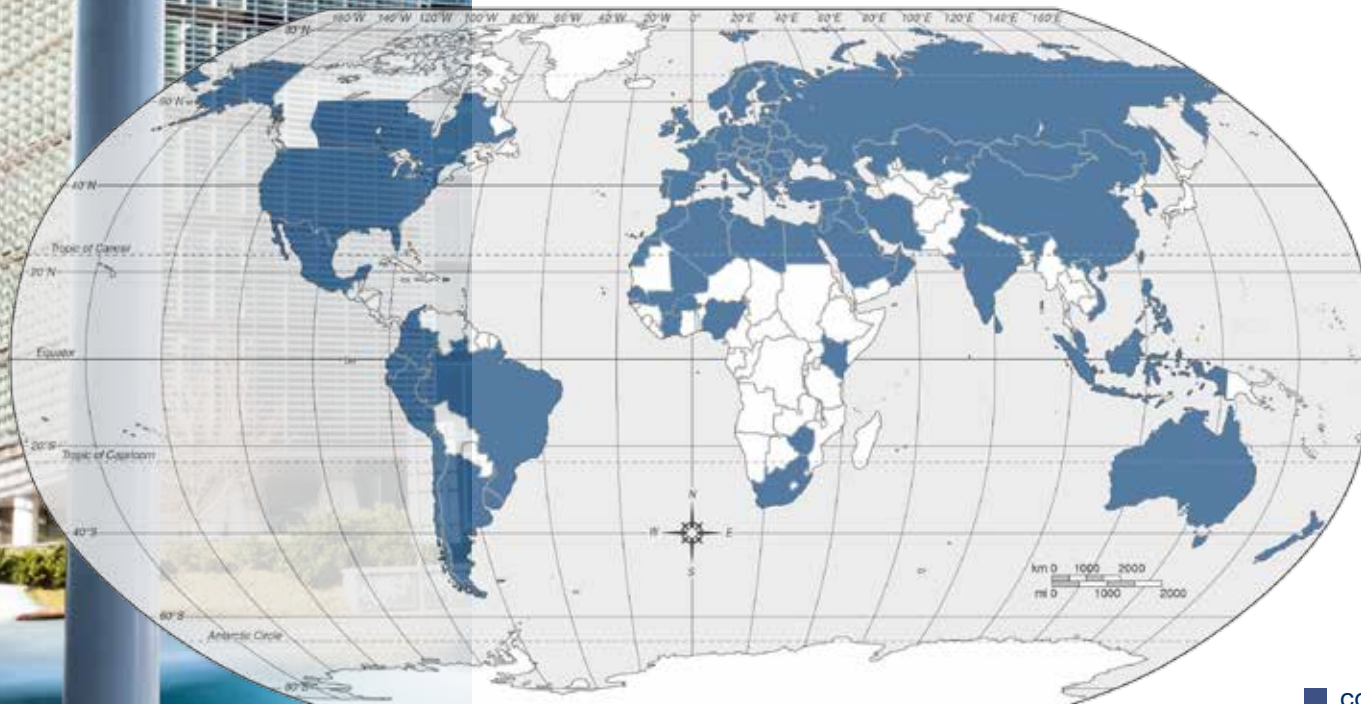
■ countries where Tattile's Cameras are in operation

born to be international
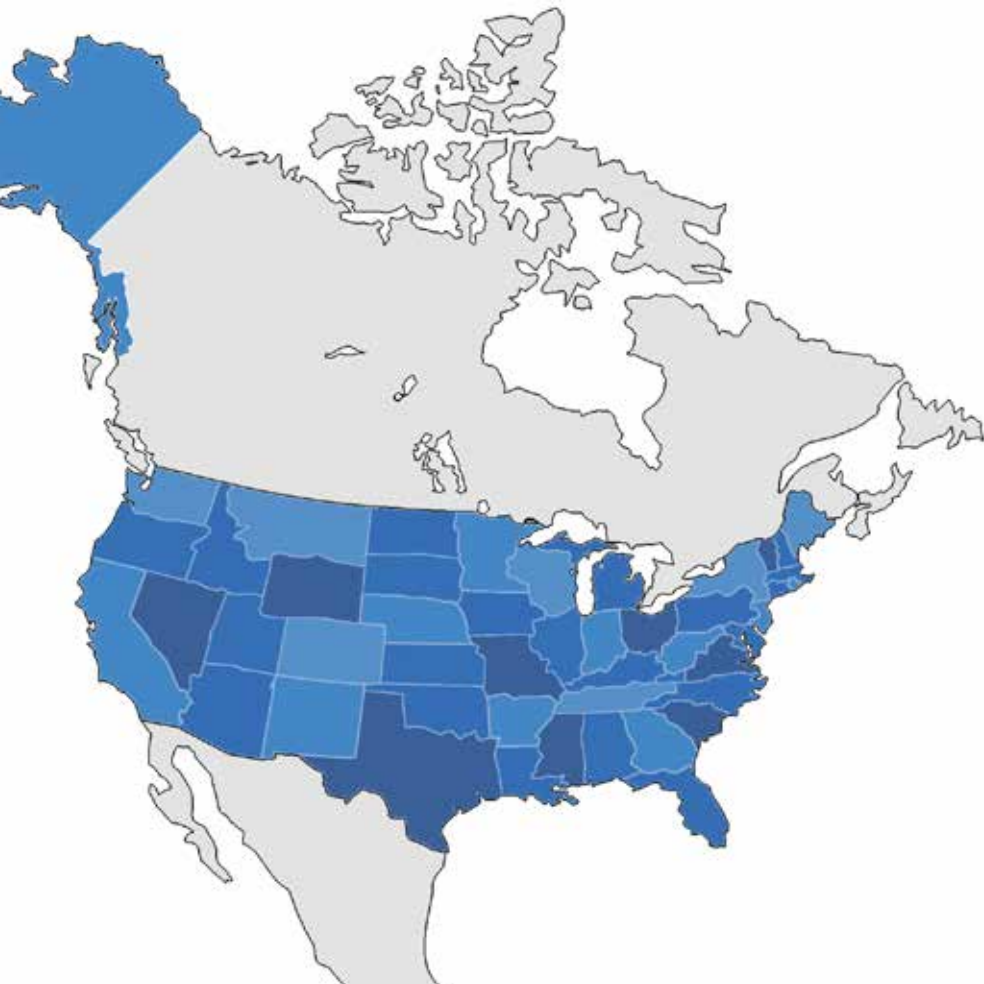
OCR

- 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 upon request
- Tattile can handle more than one OCR library 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 required)

Top Performance Hardware

- Embedded multicore processors

- Embedded FPGA

- High sensitivity sensors

- Scalable device

- 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°C / + 55°C external temperature)

HW Scalability

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 required by the most challenging scenarios.

◥ Scalable HW architecture to welcome 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 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 performances plate reader algorithm

- Camera software can be fully upgraded from remote connection

- Easy to use and configure with 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 to transform simple ANPR camera in 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** - BCC - Brand Class and Color recognition

- **B** - Rigel - Traffic analysis and incident detection

- **C** - Inspector - Traffic data management system

- **D** - Easinstall App - for remote camera configuration and performance check

		SMART				BASIC			ANPR Mobile
		2HD	Speed	Traffic Light	Enforce	Short Range	Long Range	Vega1	
BCC	Brand Recognition	✓	✓	✓	✓			✓	
	Model Recognition	✓	✓	✓	✓			✓	
	Vehicle Classification	✓	✓	✓	✓			✓	
	Vehicle Color	✓	✓	✓	✓			✓	
Rigel Traffic analysis and incident detection	Stopped vehicle	✓						✓	
	Slowdown and queue	✓						✓	
	Wrong way	✓						✓	
	Pedestrian detection	✓						✓	
	Smoke, low visibility	✓						✓	
	Lost cargo	✓						✓	
	Traffic density	✓						✓	
	Vehicle counting	✓						✓	
	Traffic statistics	✓						✓	
Inspector Traffic data management system	Average speed enforcement	✓	✓	✓	✓	✓	✓	✓	✓
	Vehicles research	✓	✓	✓	✓	✓	✓	✓	✓
	Origin destination	✓	✓	✓	✓	✓	✓	✓	✓
	Geo-referenced map	✓	✓	✓	✓	✓	✓	✓	✓
	Transit movements and traffic statistics	✓	✓	✓	✓	✓	✓	✓	✓
	Access control	✓	✓	✓	✓	✓	✓	✓	✓
Easinstall	Easy to Install	✓	✓	✓	✓	✓	✓	✓	✓
Others	Self triggering based on image analysis	✓		✓					
	Optical speed estimation	✓	✓	✓	✓	✓	✓	✓	✓

BCC
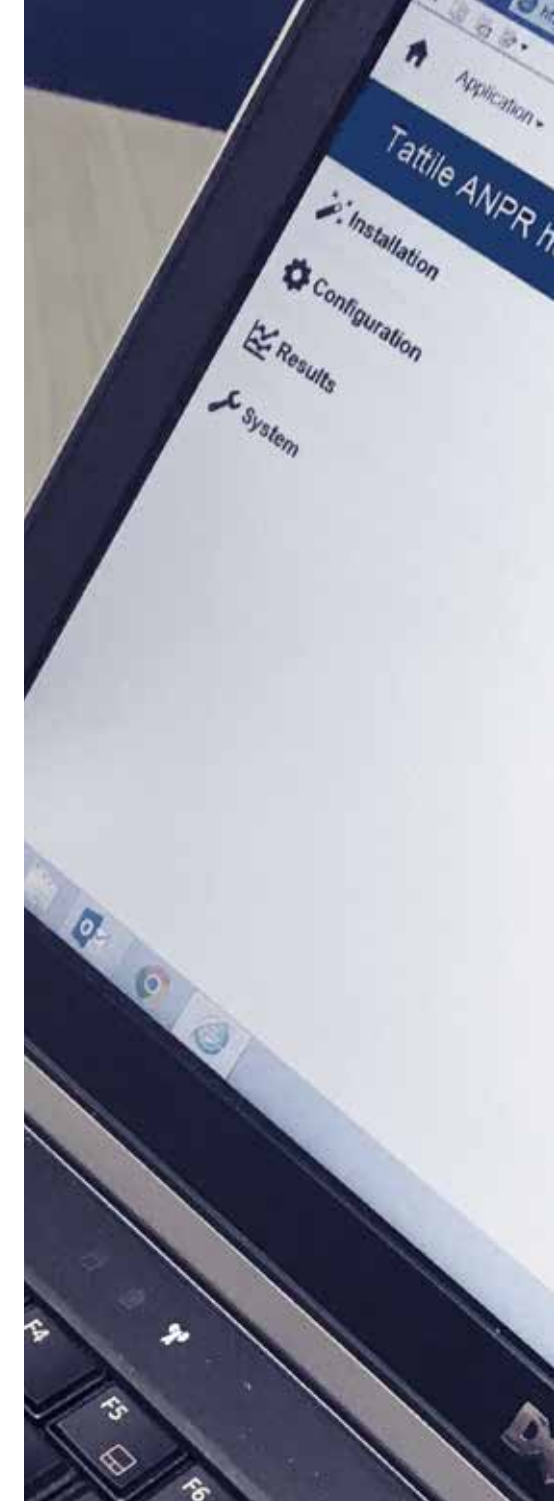
Brand, Class and Color recognition

A

▼ 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 information provided by a single source

▼ No extra cost for external software, processing server and integration time

▼ **Applications:**

- Security
- Crime enforcement
- Tolling
- Smart City

Rigel
Traffic Monitoring & Incident Detection

B

▼ Rigel plugin is an extension of Tattile's double head solutions.
It enables the traffic analysis features providing an all-in-one solution for both reading plates and traffic monitoring.

▼ Rigel system is a real time traffic analyser able to manage alarms and notification; reporting plate numbers and a number of traffic events directly to the aggregating software running on remote server.

▼ The aggregating software works as a forwarder of all the collected events to all 3rd party systems like VMS or SCADA platforms, supporting standard protocols.

▼ The integration with the most commonly used video management systems and alerting systems allows the control room to have a quick overview of all traffic events and take actions accordingly.

▼ The software is able to work in different scenarios, either in approaching and receding traffic, day and night and on multiple lanes.

▼ Available analysis:

- Stopped vehicle
- Slowdown and queue
- Wrong way
- Pedestrian detection
- Smoke, low visibility
- Lost cargo
- Traffic density
- Vehicle counting

▼ Applications:

- Traffic monitoring
- Automatic incident detection
- Traffic data collection
- Smart City

Inspector
Traffic Data Manager

C

▼ 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

Easinstall
Quick and fast camera configuration

D

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

◤ Main functionalities:

• Discover available cameras via Wifi

• 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

• Send email directly to technical support

• Create Hotspot connection

• Web view support

• QR Code scan

◤ **The App is available on Android market and on Apple store**

Application & Solution

APPLICATION		SMART				BASIC			ANPR Mobile
		2HD	Speed	Traffic Light	Enforce	Short	Long	Vega1	
Tolling System	Free flow	✓			✓				
	Stop & Go					✓			
	LTZ 1 lane						✓	✓	
	LTZ 2 lanes	✓							
Vehicle Tracking	Security & Tracking 1 lane						✓	✓	✓
	Security & Tracking 2 lanes	✓			✓				
	Mobile ANPR								✓
	Parking & Access control					✓			
Enforcement System	Red Light			✓					
	Speed		✓						
	Priority lanes						✓	✓	
	Tolling				✓				

ANPR solutions

The Vega Smart Family

▼ 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

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

▼ 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)

Tattile

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		Vega Enforce	
	Incl.	Opt.	Incl.	Opt.	Incl.	Opt.	Incl.	Opt.	Incl.	Opt.
Double Processor	X		X		X		X		X	
FPGA	X		X		X		X		X	
OCR 5Mp Sensor	X		X		X		X		X	
Color Sensor			X		X		X		X	
Micro Sd	X		X		X		X		X	
Embedded Illuminator	X		X		X		X		X	
Radar					X					
GPS		X		X		X		X		X
LTE		X		X		X		X		X
SSD		X		X		X		X		X
Linux Os	X		X		X		X		X	
Traffic Light Violation SW							X			
Rigel Traffic Analysis				X						
OCR	X		X		X		X		X	
Autoiris	X		X		X		X		X	
Easinstall App	X		X		X		X		X	
Brand Recognition		X		X		X		X		X
Color Recognition		X		X		X		X		
Model Recognition		X		X		X		X		X
Optical Classification		X		X		X		X		X
Second Level OCR		X		X		X		X		X
Speed Estimation	X		X		X		X		X	
HD Video			X		X		X		X	

Incl. = Included / Opt. = Optional

Vega Smart HD - Vega Smart 2HD

Automatic Number Plate Reader

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

Custom ANPR Solutions

	SMART HD	SMART 2HD
Software features and Performance		
Lane Detected	2	
Max Vehicle Speed [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	NA	optional
Vehicle Brand	optional	
Vehicle Model	optional	
AES256	Yes	
SHA2	Yes	
Compression	JPG	
Streaming	NA	Video streaming via standard RTSP protocol
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 HD	SMART 2HD
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	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	
	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)	

Part Numbers

Vega Smart HD	
F01760	Smart HD
Vega 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 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
Software features and Performance	
Lane Detected	2
Max Vehicle Speed [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 Brand	optional
Vehicle Model	optional
AES256	Yes
SHA2	Yes
Compression	JPG
Streaming	Video streaming via standard RTSP protocol
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	
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)

Custom ANPR Solutions

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 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 Vehicle Speed [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 Brand	optional
Vehicle Model	optional
AES256	Yes
SHA2	Yes
Compression	JPG
Streaming	Video streaming via standard RTSP protocol
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	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
	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)

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Custom ANPR Solutions

Vega Smart Enforce

Automatic Number Plate Reader

▼ *Extremely low light vehicle recognition and classification*

No need for external illuminators or sensors: reduced installation and maintenance costs.

High performances classification software and OCR algorithms.

All in one LPR and classifier
System is able to run under heavy traffic conditions and manage different kind of installations and configuration options.

High onboard security and encryption standards to secure all the information stored and sent.

Local data storage to compensate connection loss.

Video streaming from overview camera.

▼ *All transit plates are analysed and available for:*

• Video based tolling
• Night and day classification

▼ *Application*

• Tolling enforcement
• Selective and dynamic tolling

	SMART ENFORCE
Software features and Performance	
Lane Detected	2
Max Vehicle Speed [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	Yes
Vehicle Brand	optional
Vehicle Model	optional
Vehicle Color	NA
AES256	Yes
SHA2	Yes
Compression	JPG
Streaming	Video streaming via standard RTSP protocol
Configuration	
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
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 ENFORCE
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 Megapixel grayscale CMOS sensor
Context camera	2.3 Megapixel grayscale CMOS sensor
Illuminator	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
	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	70 W (max)

Vega Basic Family

Automatic Number Plate Reader

◤ 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

◤ A multicore processor on board with Linux operating system

◤ 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	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	
Autoiris	X	X	X	
Easinstall App	X	X	X	
Speed Estimation	X	X	X	
Model Recognition				X
Class Recognition				X
Brand Recognition				X
Color Recognition				X

Incl. = Included / Opt. = Optional

▼ Vandal proof connectors

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 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 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 reduce installation impact.

ANPR 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
- Wifi
- LTE
- Vehicle brand
- Vehicle class
- Vehicle color
- Vehicle model

	VEGA1
Software features and Performance	
Lane Detected	1
Max Vehicle Speed [km/h]	200
Working Distance [m]	Up to 25
Detection	99%
Reading	>95%
OCR	ANPR engine on board
2nd Lever OCR	optional
Grabbing	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
Configuration	
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
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

	VEGA1
Op. Mode	
Free Run	Continuous processing mode
Triggered	Image capture and processing triggered by Ethernet command or digital signal
System	
ANPR 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
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	15 W (max)
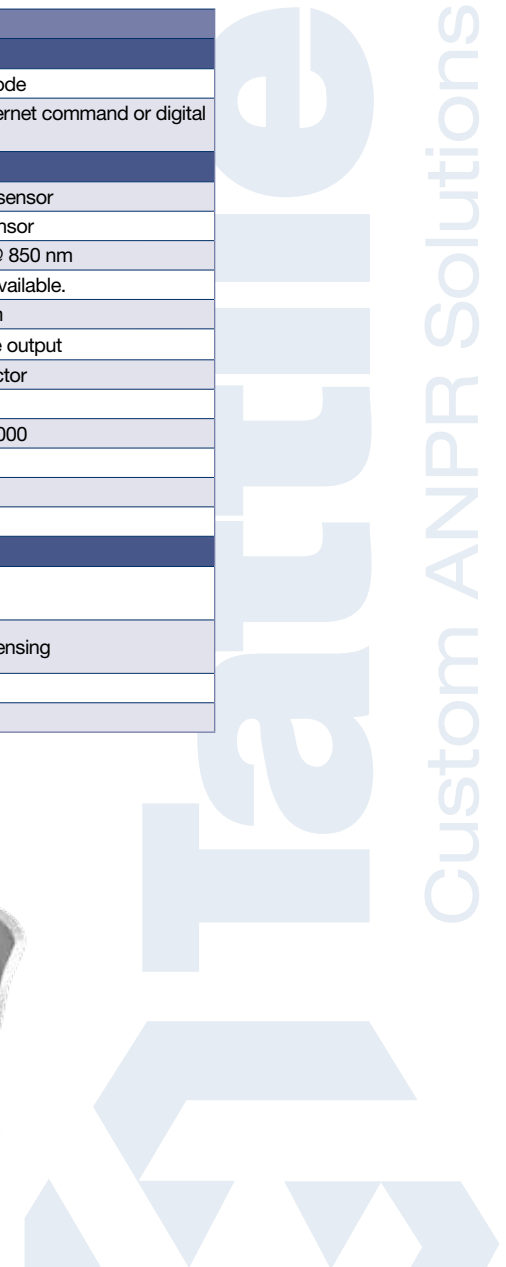
Vega Basic Short Range - Long Range

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
Software features and Performance		
Lane Detected	1	
Max Vehicle Speed [km/h]	70	150
Working Distance [m]	up to 8	up to 25
Detection	99%	
Reading	>95%	
OCR	ANPR engine on board	
2nd Lever OCR	not available	
Grabbing	Up to 60 fps	
AES256	Yes	
SHA2	Yes	
Compression	JPG	
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	
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)	
Wiegand	Yes	
Standard protocols	XML; SNMP; NTCIP; DATEX2; UTMC; MODBUS	
Serial Port	Insulated RS485	

	BASIC SHORT RANGE	BASIC LONG RANGE
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	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	
Connectors	Safe Connector	
IP Protection	Waterproof IP67	
Ethernet	GigaBit Ethernet 10/100/1000	
Storage	uSD up to 128 GB	
WiFi (Easinstall)	Yes	
Vandal proof Connector	Yes	
Technical Datas		
Operating & Storage Temperature	From -40° to +55° C	
Operating & Storage Humidity	From 10% to 90% non condensing	
Dimensions	178 x 90 x 133 mm (WxHxL)	
Weight [kg]	1.5	
Power supply voltage	24 Vdc, PoE	
Power consumption	13 W (max)	

▼ ***The Vega Basic Short Range***

can read up to 8 meters far at 70km/h max speed

▼ ***The Vega Basic Long Range***

can read up to 25 meters far at 150km/h max speed

Part Numbers

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

Custom ANPR Solutions

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 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 (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
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 128 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	
F01710	ANPR MOBILE SYSTEM short range
F01845	ANPR MOBILE SYSTEM medium range
F01696	ANPR MOBILE SYSTEM long range

Custom ANPR Solutions

tattile

Technical Drawings

Vega Smart

Vega Basic

ANPR Mobile

216

166

187

103.5

M6

48

70

235

44

107

404

127

62

189.5

404

127

62

189.5
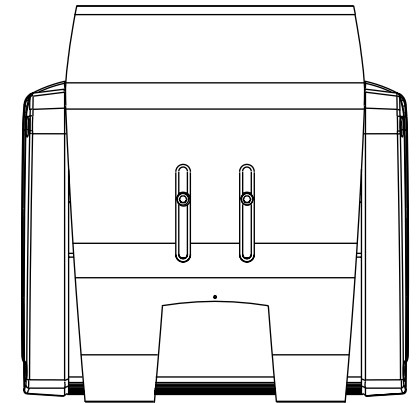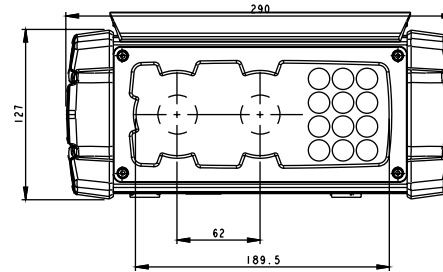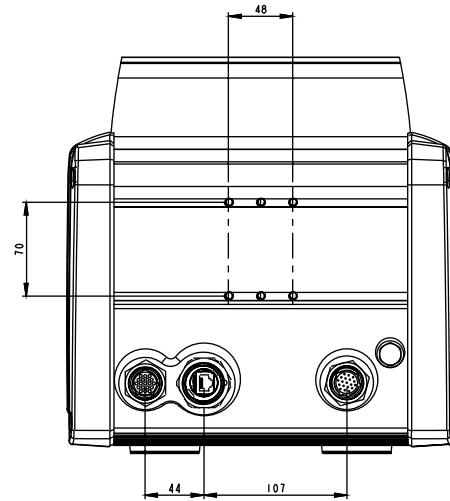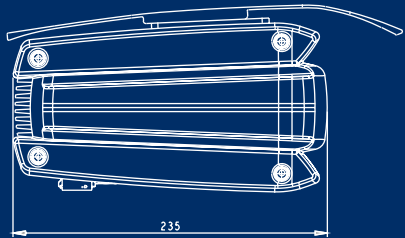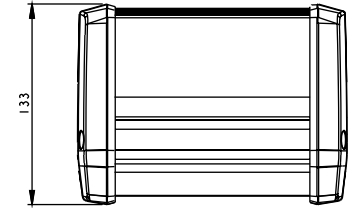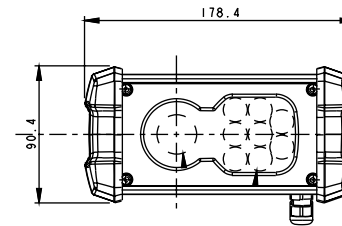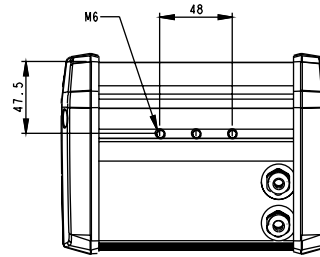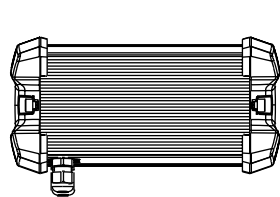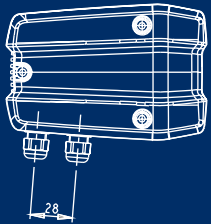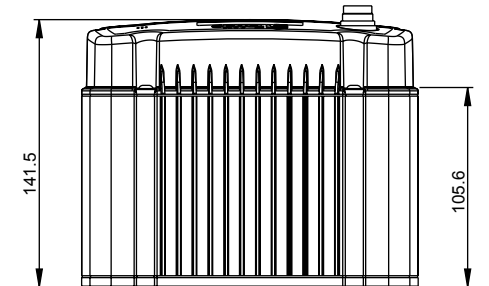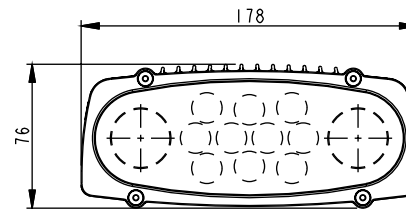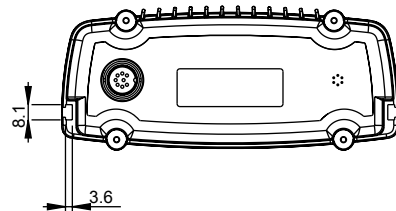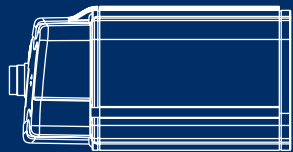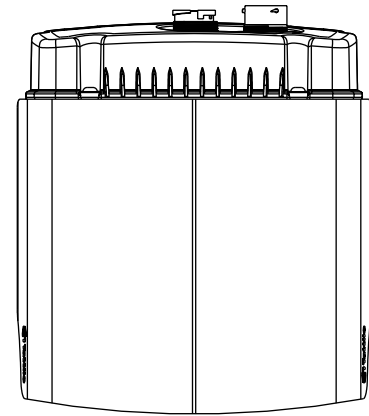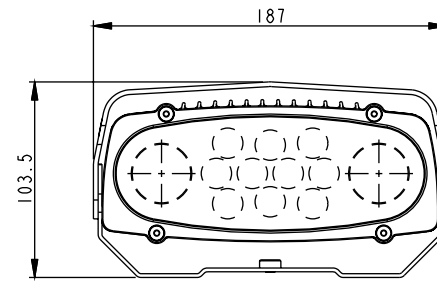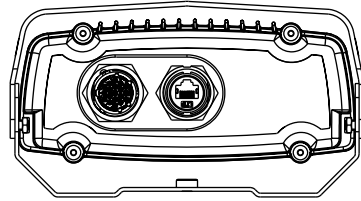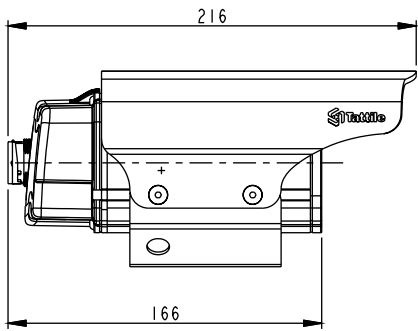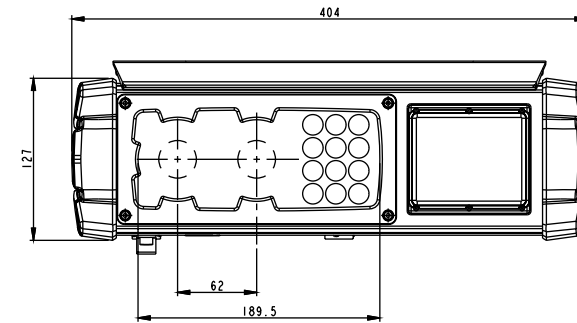
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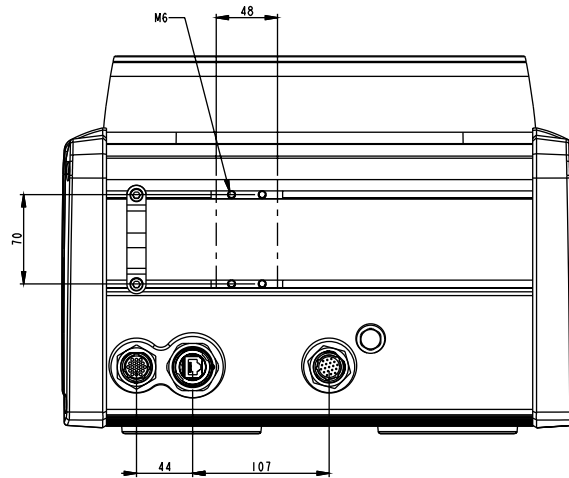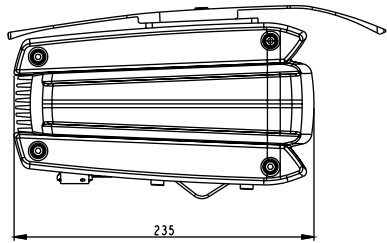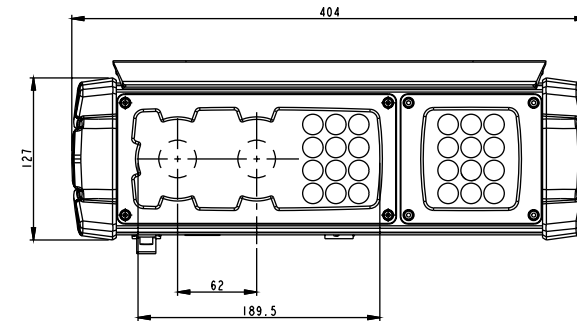**Tattile srl**
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