



# TARGA SCANNER

Mobile LPR camera for license plate recognition, designed to be installed on law enforcement vehicles for reporting traffic violations.

MOBILE  
LPR

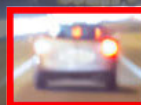
**CERTIFIED**

Privacy by Design  
e Privacy by Default

ISDP 10003

e conforme

**NDAA**





## CONTROL

- Stolen Vehicles
- Reserved Black List
- Under investigation
- Fault



## MANAGEMENT

- Investigations
- Communication
- Warning
- Users



## ANALYSIS

- Classification
- Nationality
- Journeys
- Statistics

Only 2  
devices

Free control



Camera and Tablet



## DOUBLE LENS: DOUBLE PERFORMANCE

A single sensor – capable of reading number plates and context - saves money. However, when using two separate and specialized sensors, the performance in reading accuracy and video analysis for vehicle recognition doubles both in terms of quality and quantity.



## MODELS

TS1-25: OCR camera for frontal vehicles for distances greater than 10m

TS1-8: OCR camera for reading side license plates at near range, typical of vehicles in double rows or parked in a herringbone pattern



## BRIGHT AND SHARP IMAGES EVEN AT NIGHT

Thanks to Selea's special **Night Vision** colour sensor, the images of moving objects become incredibly sharp, to the point that the vehicle's licence plate number can be read with the naked eye, thus eliminating the typical night-time trailing effect of surveillance cameras.

Operative flexibility  
without losing time.



TARGA SCANNER is integrated with the best mobile radio communications systems for Law Enforcement, such as Hytera and Motorola, and can receive vocal alarms and images in real time.



## VIOLATION REPORTER

Vehicle on the black list, not insured, not inspected, with administrative detention, with lost or cloned license plates, stolen vehicle, abandoned in double rows. All this is possible thanks to its practicality of use in full freedom of movement, .

More than a LPR device, TARGA SCANNER is a real operations center, capable of directly consulting Police databases while on the move, for more effective urban and road safety control activities even when on external duty.



### JOINT FORCES

Communication and integration are some of the aspects that distinguish Selea's solution from others. Thanks to its APPs and its FORMS, the Selea solution sends communications, visual and vocal, about events and alarms.



### CONTROL ROOM

Communications (visual and vocal) of events and alarms, to Radio LTE/PRM terminals as well as on tablets, smartphones, smartwatches, portable/permanent PCs and obviously to the video operations centre.



## TECHNICAL SPECIFICATIONS OF THE MOBILE DEVICE

### CAMERA

**Double sensor** camera:

- ▶ OCR *number plate reading* sensor CMOS Global Shutter, **2 Megapixels**, frame rate 60 Fps, B/W fitted with an 8 mm (TS1-8) or a 25mm (TS1-25) fixed focus lens with F1.2 aperture and C/CS mount.
- ▶ Context Nightvision colour sensor CMOS Rolling Shutter, **2 Megapixels**, with a 6mm (TS1-8) or a 25mm (TS1-25) fixed lens (with F1.2 aperture and C/CS mount) and IR filter for *panoramic view*.

### ANPR-OCR

Triple OCR algorithm embedded directly into the camera that can read the number plates automatically (free flow) on single lanes, without the need for external synchronisation devices. It should be remembered that unlike other systems, Selea character reading cameras **are not based on** imprecise motion detection systems. The number plate can also be read even when the vehicle is stationary (0 Km / h = no motion detection).

### ALGORITHMS

In addition to the OCR number plate recognition algorithms, other algorithms are installed on the camera that have been developed to make number plate reading as reliable and as error-free as possible. In addition to the OCR algorithms, these include:

- ▶ *Dirt elimination*, to eliminate issues associated with dust, snow, mud and insects on the body of the number plate
- ▶ *Angle compensation*, to allow readings to be taken even at sharp angles
- ▶ *Symbol elimination*, such as labels, badges, symbols or advertising
- ▶ *Predictive character analysis*, probability based, to improve reading accuracy
- ▶ *Magic spot*, which makes the number plate visible even if the image is dark.

### SECURITY AND PRIVACY

The stored data is encrypted. TARGA-CPS is ISDP10003:2018 certified to emphasize the importance Selea has placed on data protection and to comply with GDPR regulations. Data and image security are ensured by:

- ▶ HTTPS encryption
- ▶ FTPS encryption on TLS/SSL protocol
- ▶ Onboard USB memory encryption
- ▶ Privacy management using automatic deletion of the data and images after a specific time period.

### STANDARD BUILT-IN FUNCTIONS

The camera has the following built-in functions:

- ▶ Embedded Linux Operating System
- ▶ Dual FTP server and dual IP notification server.
- ▶ Dynamic customization of sending FTP notifications.
- ▶ Customization of IP notification.
- ▶ Multiple user management using HTTPS protocol protected access credentials for accessing the camera
- ▶ List management (white/black, no list...) with independent actions for each list.
- ▶ Synchronized recording of metadata and captured code/number plate image.
- ▶ Integration and saving of contextual camera images.
- ▶ Privacy management with auto-deletion of data and images after a certain period of time.
- ▶ Integration with third-party VMS video surveillance software solutions.
- ▶ Save data on a local server or remote NAS.
- ▶ HTTPS security management.
- ▶ Management of FTP security in FTPS over TLS/SSL protocol
- ▶ Management of secure email sending via TLS/SSL protocol
- ▶ Multiple action alarm management.
- ▶ Live and check control function for checking the operation of the entire system.
- ▶ Possibility of updating firmware from a web page.

## TECHNICAL SPECIFICATIONS OF THE MOBILE DEVICE

### ■ ACCURACY

The precision of this product is related to many factors which depend on installation. It has been impossible to define a certain precision value. Often the plate reading device is installed inside the vehicle and the reflection on the windshield can cause problems, reducing reading precision. The same is true for installations on very steep roads. Indicative accuracy:

- accuracy > 90% of transits in stationary conditions,
- speed of up to 80 km/h of the vehicle in transit (TS1-25)
- speed of up to 40 km/h of the vehicle in transit (TS1-8)
- for standard external installations: PAN=20°; TILT=20°
- 50 km/h max speed of the vehicle in motion with external fixing

### ■ READING LAYOUTS

*TS1-25 front plate reading*

- reading distance= 21 m; Width= 4 m; PAN=15°; TILT= 7.1°; external fixing; reading rear vehicle license plates

*TS1-8 slide plate reading*

- reading distance = 4.5 m; Width = 4 m; PAN=15°; TILT= 15°; external fixing; reading rear vehicle license plates

### ■ INTEGRATION

Compatible camera with both the most popular license plate reading and video surveillance software platforms on the market and with open platform for standard third-party ANPR-OCR cameras Selea CPS software.

### ■ INTERNAL MEMORY

16GB internal solid-state storage (expandable upon request up to 256GB). When the memory space is full, the camera automatically deletes the oldest files to make room for new ones (Fi.Fo method)

### ■ IR ILLUMINATOR

The camera is fitted with an IR illuminator consisting of 12 high power 820 nm with conical opening of 47° for the TS1-8 model and 22° for the TS1-25 model. IR LEDs that are compliant with the EN62471: 2008 standard on photobiological safety. The multiple exposure pulsed lamp is able to regulate the output power according to the lighting in the environment and the reflectivity of the number plate. This avoids underexposed or overexposed images, which improves number plate reading and recognition accuracy. The recommended lighting distance for maximum reading accuracy:

- 21 mt for TS1-25 model
- 4,5 mt for TS1-8 model;

## TECHNICAL SPECIFICATIONS OF THE MOBILE DEVICE

### ■ DATA INTERFACE

The camera is a web-server device, i.e. a device that allows the images to be viewed, the memory to be accessed and the parameters to be configured via a browser. It is fitted with a 10/100 Mbps standard 802.3 Ethernet/IEEE port and uses well known standard communication protocols such as TCP/IP, UDP, HTTP, HTTPS, RTP/RTSP and DHC

### ■ DATA COMMUNICATIONS

- Multiple action alarm management.
- Alarm-triggered transmission of the image associated with the captured number plate to remote devices (such as MOTOROLA and HYTERA mobile radio communication equipment, PC, Tablet etc.) with **vocal reception** of the number plate.
- FTP and TCP/IP double server

### ■ INBUILT PROTECTION

The camera is protected against:

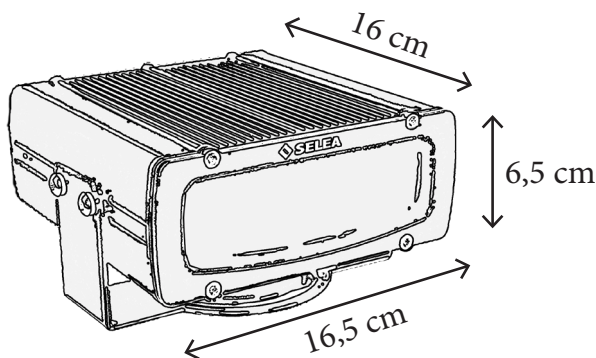
- reverse polarity
- voltage fluctuations greater than 17 Vdc

### ■ POWER SUPPLY

The camera is designed to operate using a 12 Vdc  $\pm 20\%$  with IP66 water-resistant connector. Absorbed power max. 18 Watt.

### ■ GENERAL

The camera is made of powder coated die-cast aluminium with an ABS weather-shield. It can operate in temperatures from  $-40^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$  without the need for fans or heaters. Protection rating IP66. Type of housing: extruded from anodized aluminium. Its dimensions are: L=165 H=65 D=160 mm. It weighs 3 kg..



## MODELS

**TS1-8** - Mobile license plate reading camera with 2Mpx OCR sensor and 2Mpx Sony Night Vision contextual sensor with 8mm fixed focus lens, for reading up to a distance of 4m. The camera comes with a 4m Ethernet cable, cigarette lighter power cable, magnetic mount (with protective steel cable), carrying case with adjustment allen wrench, and suction cup mount

**TS1-25** - Mobile license plate reading camera with 2Mpx OCR sensor and 2Mpx Sony Night Vision contextual sensor with 8mm fixed focus lens, for reading up to a distance of 4m. The camera comes with a 4m Ethernet cable, cigarette lighter power cable, magnetic mount (with protective steel cable), carrying case with adjustment allen wrench, and suction cup mount.

## ACCESSORIES

**X-ROUTER955** - KIT including: Wi-Fi router, cigarette lighter power cable, cigarette lighter socket splitter

**XAUINVERT** - Inverter for powering Targa Scanner, routers and Notebook

**XATTABLET** - 10" Tablet including configured CPS software (*Reverse charge*)

**XATNOTEBOOK** - 14" Notebook including configured software (*Reverse charge*)



## About us

SELEA is specialized in the manufacture of number plate reading solutions, both for vehicle access control and for territorial security and traffic control. All of our products are developed and manufactured entirely in Italy. This means that our customers benefit from continuous and comprehensive technical support.

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