

PAM Software solution





A software solution for those who need a valid tool to manage their customers' parking spaces, such as hotels, campsites, residences, car parks and also private homes, with management functions including:

- permits,
- · schedules,
- special types of customers (VIP),
- · calculating stay costs,
- entrance of vehicles of a family group, in order to manage the limited availability of parking spaces in residential complexes or campsites. Upon reaching the maximum number of parking spaces available, PAM inhibits entry to additional vehicles of the family group, enabling entry only when the assigned place has been freed.

PAM is capable of handling special categories of vehicles (ambulances, Law Enforcement, suppliers or special customers, which can automatically enter, regardless of the set time conditions. PAM is an access control and parking management module and can also be used as a video recording and surveillance system.

TARGA504 can be integrated into the most well-known parking and access control systems such as:

HUB FAAC Honeywell SIEMENS SKIDATA



ZOOM 10x

Camera equipped with Varifocal lenses with 10x zoom. For those who want a flexible solution that adapts to the various installation conditions



DUAL SENSOR

OCR camera for automatic license number plate reading with integrated camera for an overview view in colour of the context



FOG-FIGHTER NIGHT & DAY

Selea cameras are equipped with the special *FogFighter* function to read and recognize licence plates when there is dense fog, both day and night.



HARDWARE FEATURES OF THE CAMERA

Sensor						
OCR sensor	2 Megapixel, Global Shutter, CMOS B/N, frame rate of 54 Fps					
Context colour sensor	5 Megapixel, CMOS Rolling Shutter (optional)					
Lens						
OCR lens	$5 \sim 55 \text{ mm}$ (zoom 10x) varifocal lens with F1.4 aperture and C/CS mount					
Context lens	8 mm fixed focus lens with IR filter.					
Illuminator						
Pulsed light IR Illuminator	n.6 high power 820 nm/47° IR LEDs that are compliant with the EN62471:2008 standard on photobiological safety.					
Internal memory						
Туре	8 GB High Endurance (-40° \sim + 85°C) industrial microSD SLC memory card, useful for storing White/Black lists and the captured images.					
Input/Output						
Input	• n.2 digital inputs Image acquisition and processing can also be activated by a digital command or through a network connection.					
Output	 n.1 optional interface RS232 - RS485 (option W and O) n.1 10A - 250 Vac, o 5 A a 30 Vdc volt-free contact relays (0.3 A a 125 Vac o 1 A a 30 Vdc if the camera is fitted with the Wiegand interface) 					
Ports						
Ports	10/100 Mbps Ethernet LANn.4 USB ports					
Power supply						
Power supplies	230 Vac power supplyPOE+ power supply (optional)					
Absorbed power	10 Watt max					
Inbuilt protections						
The camera is protected against:	 reverse polarity. voltage fluctuations greater than 30 Vdc. overloads with thermal protection. overvoltages (TVS) on USB and Ethernet ports. 					



HARDWARE FEATURES OF THE CAMERA

Accuracy						
OCR accuracy	up to 99.9% on number plate reading with the vehicle stationary for a standard installation of up to PAN \leq 30°; TILT \leq 25°; H=1.5m max 50 Km/h maximum capture speed					
Standards						
Respected standards	 EN62471 EN55032 EN55035 EN61000 EN62368-1 EN60529 EN60068 EN60721 European standard RoHS2 - 2011/65/UE 					
General						
Operating temperature	From -30°C to +55 °C without the need of fans or heaters.					
Protection rating	IP66					
Dimension (mm)	L=83:H=130; D=410					
Weight	3 Kg					



SOFTWARE FEATURES OF THE CAMERA

Embedded Algorithms							
Standard built-in functions	 License plate reading (OCR) - reading characters of over 50 countries Fog-Fighter (reading license plates in the fog) Dirt elimination Predictive character analysis Angle compensation Magic spot 						
Data communications							
Integrated webserver	 Onvif communication protocol. Save data directly to local server or remote NAS. Integration with third party VMS software solutions. Synchronized recording of metadata and captured number plate image. Synchronized context images with the number plate images. Dynamic creation and updating of multiple lists (black/white). Integration and saving in memory of Jpg snapshot images in Http. Privacy management with automatic deletion of image data after a specified period of time. Internal memory management. When the memory is full, the cameras automatically delete the oldest files to make room for the new ones (Fi.Fo method). Multiple action alarm management. 						
Protocols	TCP/IP, UDP, HTTP, HTTPS, FTP, FTPS, RTP/RTSP, DHCP.						
Other integrated protocols	MODBUS (built-in)Wiegand, OSDP (optional)						
Data security							
Data protection	 HTTPS encryption. FTPS (FTP over TLS/SSL) encryption. Micro SD memory encryption. Automatic deletion of data and images after specified period of time (privacy management). AES256 Advanced Encryption Standard. SHA2 Secure Hash Algorithm 2. 						
Video output							
OCR sensor	2 Megapixel Jpeg images and RTP/RTSP video stream with MPEG4 e H264 encoding.						
Context sensor	5 Megapixel Jpeg images and RTP/RTSP or HTTP video stream with MPEG4 e H264 encoding.						



SOFTWARE FEATURES OF THE CAMERA

Functionality						
Operating system	Linux Embedded					
Standard built-in functions	 Embedded FPGA video signal processing. Double FTP server and double IP notification server. Dynamic FTP notification forwarding customization. IP notification customization. Multiple user management using HTTPS protocol protected access credentials for accessing the camera. List management (white/black list, no list) with independent actions for each list. Synchronized recording of metadata and captured code/number plate image. Integration and saving of context camera images. Privacy management with automatic deletion of image data after a specified period of time. Integration with third party VMS video surveillance software solutions. Save data on a local server or remote NAS. HTTPS security management. FTPS (FTP over TLS/SSL) security management. E-mail forwarding security using TLS/SSL protocol. Multiple action alarm management. Live and check control function for checking the operation of the entire system. Synchronization of date and time via NTP, IEEE1588 protocol. Possibility of updating firmware from the web page. 					

Compatibility and integration

The camera can be integrated into the access control systems of the most famous brands in the parking and access control market such as:







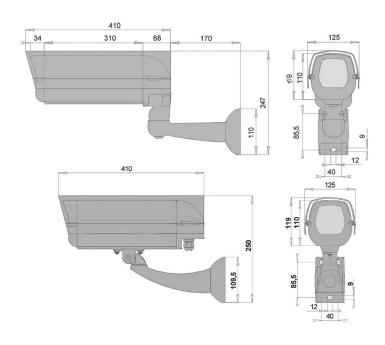




ACCESSORIES

D8	Colour sensor CMOS Rolling Shutter, 5 Megapixels resolution, fitted with an 8 mm fixed focus lens with an M12 mount
W	Wiegand serial interface for the integration within many access control systems.
0	RS485 interface with standard OSDP communication protocol for the integration with long distance access control solutions.
Т	Module for powering the camera with PoE+ (standard 802.3at) including high power injector.
Z	Natural white light, replacing the standard IR illuminator, for reading car plates with red characters.







COMPARISON TABLE OF SELEA ANPR CAMERAS								
Legend	iZero			TARGA	TARGA			
 = included (built-in) = optional (on request) empty space = unavailable 	BOX Full	COLUMN Entry/8	COLUMN Full/8	512	504			
Built-in OCR sensor	V	V	V	V	·			
Standard OCR lens Focus (FF=fixed focus; VF=varifocal) - Mount type	12 mm FF-CS	3,6/8 mm FF-CS	3,6/8 mm FF-CS	8/16 mm FF-CS	5~55 mm VF-CS			
Average reading distance (min - max) NB: distances vary considerably depending on both the size of the plates and the positioning of the camera (front or side)	1,2~3,5mt	1,2~3,5mt/ 1,5~4mt	1,2~3,5mt/ 1,5~4mt	1,5~4mt/ 3~8mt	3~10mt			
Additional context sensor					•			
MicroSD memory for backup and white list	V		V	V	V			
RS232-485 interface	V		V	V	V			
Wiegand interface	V		V					
OSDP interface (Siemens)								
POE+ 802.3at power supply	V		V					
230 Vac power supply			•		~			
12 Vdc power supply	V	V	V	V				

















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WHERE TO BUY

Selea has a network of authorised Distributors throughout the country with whom it establishes design and market.

SUPPORT

We provide both a pre-sales and an after-sales technical support service to customers.

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Abous 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.

The experience accumulated in over 10 years of collaboration with various law enforcement agencies on video surveillance and license plate reading systems, give us today the opportunity to offer solutions capable of guaranteeing excellent results, and advanced tools for the repression and prevention of crimes (search for accomplices, stolen vehicles, vehicles without insurance/roadworthiness certificate, traffic analysis, and much more). These products can be part of an integrated urban security system, allowing the sharing of information between law enforcement and smart cities.

- HARDWARE MANUFACTURING
- SOFTWARE DEVELOPMENT
- IN-HOUSE RESEARCH & DEVELOPMENT
- 100% MADE in ITALY by SELEA

