

ADAPTIVE RECOGNITION

PRODUCT CATALOG


analytics perfected



IDENTITY DOCUMENT RESULTS:

- BORN: ON 1984-06-07 IN MELBOURNE CITY
- NATIONALITY: AUSTRALIAN
- SEX: FEMALE
- DOCUMENT NUMBER: PW0900286
- VALID: FROM 01/03/2021 TO 01/03/2024
- PERSONAL NUMBER: 61047007L



NUMBER PLATE RESULTS:

- | | | CONFIDENCE |
|--------------------|---------|------------|
| PLATE TEXT: | AR30YRS | 99% |
| COUNTRY: | DENMARK | 98% |
| MAIN BACKG. COLOR: | LIGHT | 98% |
| MAIN FRONT COLOR: | DARK | 99% |

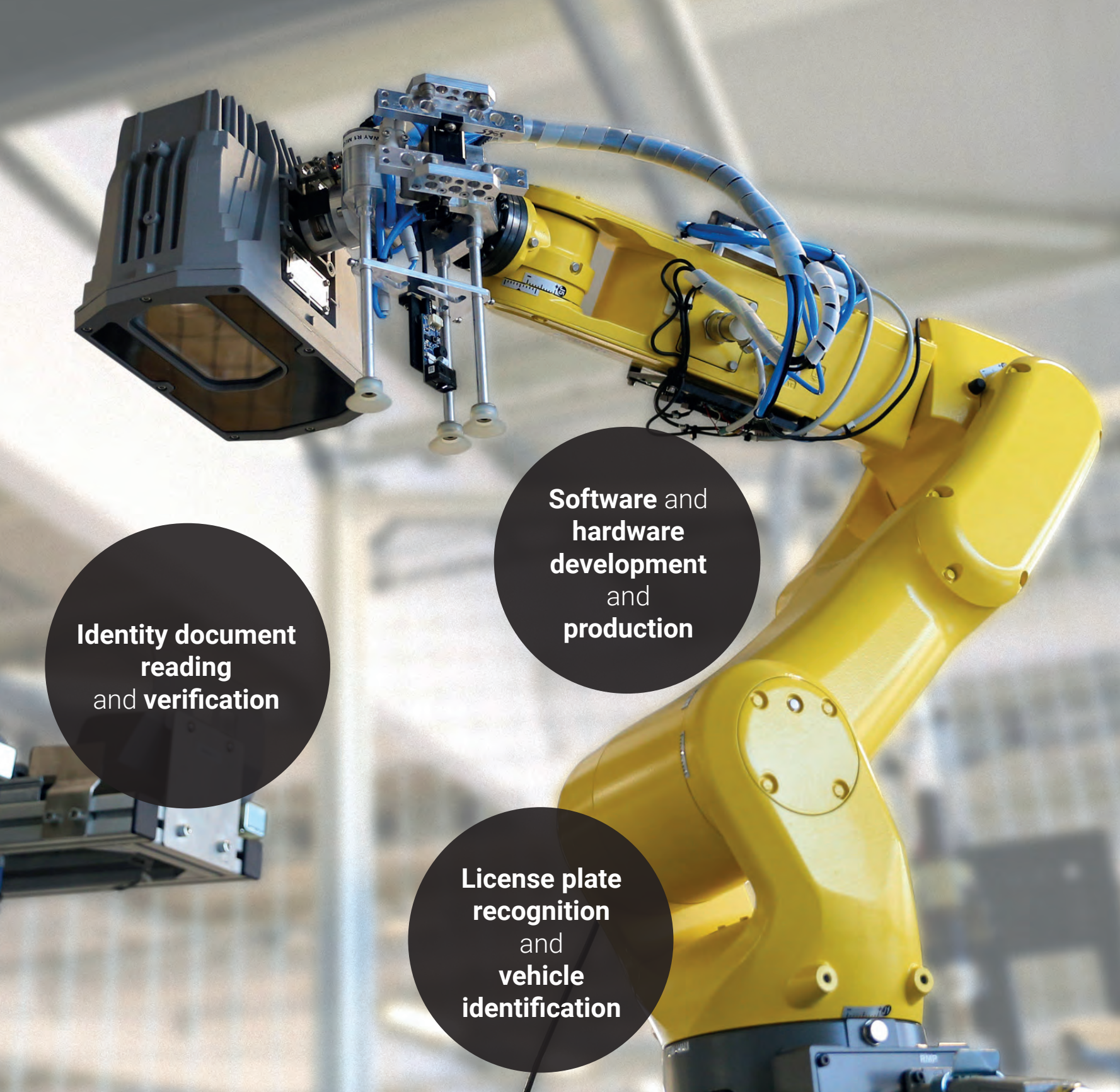


MAKE & MODEL RESULTS:

- | | | CONFIDENCE |
|-----------|---------|------------|
| MAKE: | TESLA | 100% |
| MODEL: | S P100D | 95% |
| COLOR: | WHITE | 96% |
| CATEGORY: | CAR | 99% |
| HEADING: | FRONTAL | 98% |



Safe traffic. Verified identity. Enhanced security.
Image analytics perfected - since 1991.



Identity document
reading
and verification

Software and
hardware
development
and
production

License plate
recognition
and
vehicle
identification

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for Access Control and Parking

Who We Are

Established in 1991, Adaptive Recognition (ARH) designs, develops, and produces software and hardware based on computer image processing technology. Our products are key components in traffic and security systems.

30+
years of
experience

Our Product Portfolio

The product we are best known for is Carmen®, a globally recognized, highly versatile automatic license plate recognition (ANPR/ALPR/LPR) software. Carmen® is available in multiple versions, as a software library, Plug & Play application, and cloud-based software as a service.

We also design and develop ANPR cameras and other hardware devices for access control, traffic monitoring, industrial code reading, and law enforcement. This allows our solution provider clients to source high-quality software and hardware components for their projects from a single vendor.

For the identity verification market, we develop and manufacture innovative document readers and scanners that help accelerate and improve authentication and data entry processes.



Application Areas

You may encounter our technology as you go on about your everyday life, for example, while driving and parking a car, crossing borders, traveling by air, taking a ferry ride, and going through identity checks in hotels, banks, retail and entertainment facilities, and many more.

In a broader context and in a less visible manner, our technology and solutions are also present as the backbone of complex systems, such as smart cities, logistics networks, and smart ports.

Our Clients

Our client base mainly consists of system integrators working on a wide range of private and governmental projects of all sizes. We are proud that many of our clients have become long-term strategic partners over the years, thanks to our client-focused approach and solution-based mindset.

Aside from system components, we also develop standalone products, such as user-friendly Plug & Play versions of some of our more sophisticated software products and cameras.

Here are just a few of the many organizations that use our products.

38 000+
plate types
recognized
... and counting



Our Corporate Policy & Mission

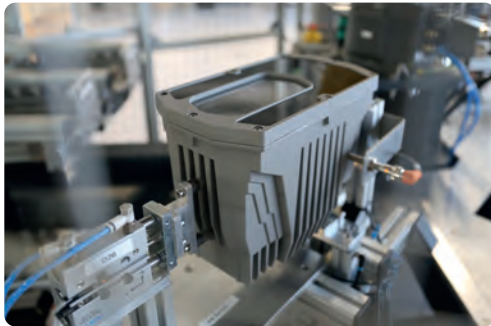
We leverage 30+ years of hands-on market and technology experience to answer our customers' needs and fulfill our mission of transforming the safety of the individual and society.

All our operations are conducted in-house, from research & development, through product design and manufacturing to support.

Our hardware is produced and assembled at our own manufacturing plant located in the EU through automatized, ISO-certified processes that ensure the highest quality with minimum impact on the environment.



200 000+
installations based on
our OCR products
worldwide



What Makes Us Different

A team of in-house developers and engineers is in charge of keeping our software products ahead of the constant evolution of the worldwide license plate and identity document landscape. We focus on constant innovation to keep our leader position in these highly specialized market segments.

Since we own the entire product lifecycle from vision through production to support, we can quickly and efficiently respond to special requests and provide knowledgeable and dependable support to our customers through a global partner and support network. The most important measure of our success is our partners' and clients' success.

300+
employees

Our plate recognition software stands out by providing unparalleled worldwide coverage of international license plates.

Carmen® is the only software on the global market that can reliably handle special plate types of specific geographies.

Moreover, we are proud to offer ID reader devices with an unprecedented set of features such as Adaptive Light Control for filtering out disturbing interferences, oblique light for displaying tactile elements, and face compare.

Our cameras boast incredible performance while offering high-tech features such as built-in laser-triggering and full remote control.

“ Swift adaptability to changes, common sense, and teamwork are the three pillars of success in an industry as fast-moving as image recognition. ”

Laszlo Kis
CEO

Find out more about our company and the milestones that have defined our story.



Passport Readers and ID Scanners with OCR & Authentication Software



Visit our website
for more information



Osmond L and R ID Scanners with USB Interface



Scanners for reading and verifying
optical and digital data from IDs

Minimize time spent on ID checking

Osmond L and R models read, authenticate, and analyze identity documents in a matter of seconds. They are ideal for mission-critical applications in security, border control, and commercial environments.

Both models feature hardware-accelerated automatic image enhancement with a maximum resolution of 700 PPI to provide complete analysis of optical security features. They inspect the MRZ (machine readable zone) and VIZ (visual inspection zone) parts of the document and perform 1D/2D barcode reading as well. In addition, R models read digital (RFID-chip) data of e-documents. Besides the standard visible white, infra-red and ultra-violet, a built-in white oblique (edge) light helps visualize the surface structure of documents.

The included software API allows easy integration into any system, supporting C/C++, C#, .NET, and Java.

Main benefits

- Speedy verification of both ICAO and non-ICAO ID documents
- Clear and immediate feedback
- Easy communication with databases and external systems
- Configurations to cover use cases from border control to hospitality
- Maintenance-free operation, no moving parts
- Industry-leading image quality for OCR and authentication

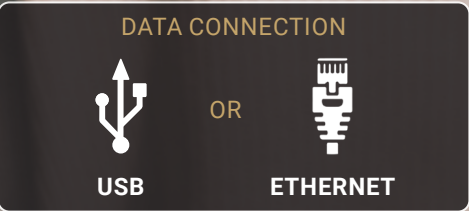
Key features

- Visible white, IR, UVA illumination, and oblique light
- Large scanning window, OLED display
- Adaptive Light Control (ALC) and Reflection Removal (RR) for filtering out interferences
- IP54 case, scratch-resistant glass
- High-resolution 700 PPI imaging
- Jura IPI and LetterScreen security visualization
- Reading and writing RFID-chip/smartcard

3 years manufacturer's warranty
for the device



Osmond N Standalone ID Scanner



Model enhanced with **dual interface**

Make the most out of network environments

The Osmond N model is equipped with the same features as the L and R models, with the addition of a dual interface to either function as standalone network or USB device. It can be integrated into systems with thin clients, virtualized operating systems, and any LAN and internet-based environment, with no local installation needed. Ideal for centrally managed networks, it can be used in pool mode, connecting to multiple clients in the network.

The model comes with a software API for easy integration, featuring automatic image processing, MRZ (machine readable zone) data reading, and authentication of standard and document-specific safety features.

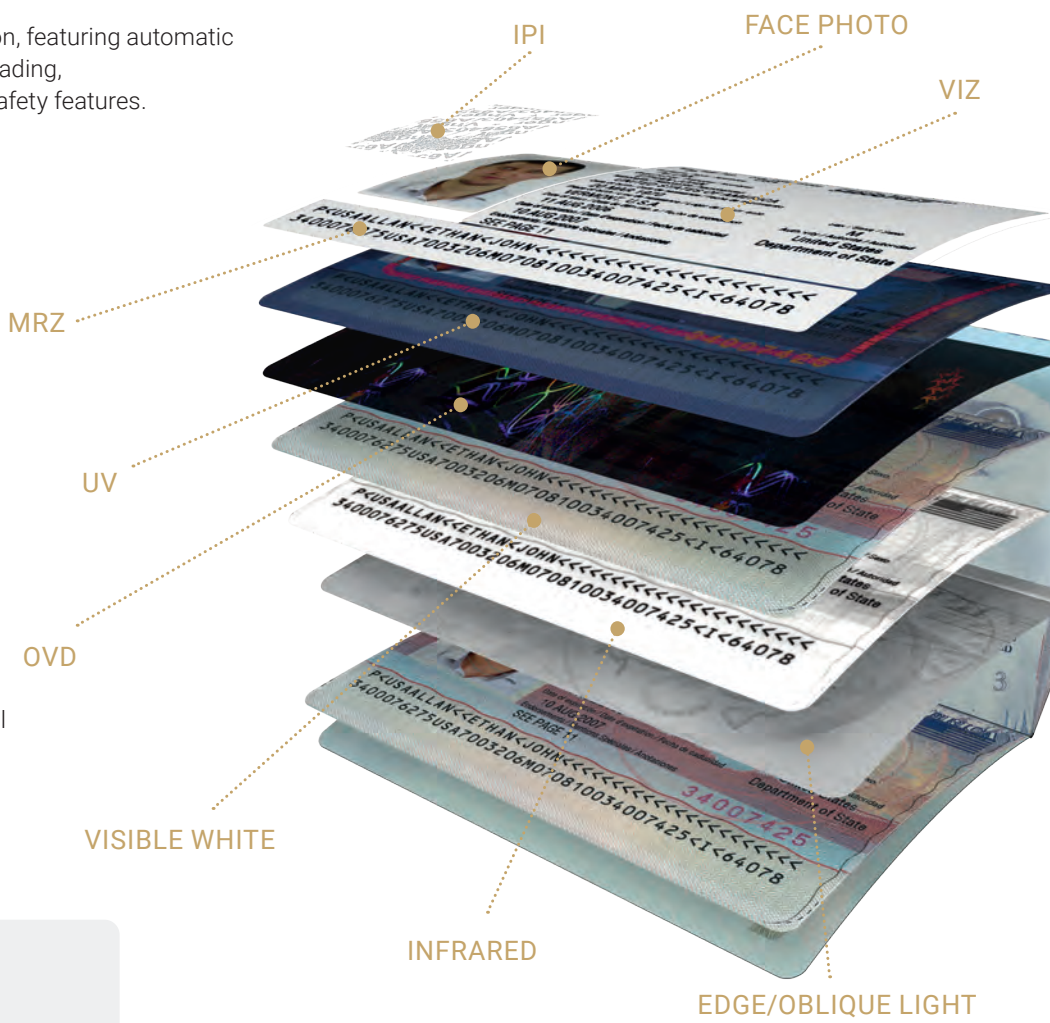
Main benefits

- Standalone operation with no installation needed
- Selectable network or USB operation mode
- Speedy verification of ID documents
- Ease of use, programmable OLED display

Key features

- Customizable WEB GUI interface
- Software library and network API included
- Powering via external supply or PoE+
- Visible white, IR, UV-A illumination, and oblique light
- OVD visualization
- Adaptive Light Control (ALC) and Reflection Removal (RR) for filtering out interferences
- IP54 case, scratch-resistant glass
- Jura IPI and LetterScreen security visualization
- Reading and writing RFID-chip/smartcard

3 years manufacturer's warranty
for the device



Osmond and Combo Smart Kiosk Scanners Designed for Built-in Use



Vending machines



E-gates



ID quality assurance



Liquor & tobacco shops



Border control & Immigration

Models available for **counter**, **e-gate**, and **kiosk integration**

Physical integration without compromises

The kiosk version of our scanners (Combo Smart Kiosk and Osmond Kiosk) are designed for flexible physical integration in kiosk applications such as border control e-gates, airline check-in, utility payment, ATM/VTM kiosks and other self-service stations.

Thanks to its reversible frame, the Combo Smart Kiosk can be integrated into a wide variety of enclosures from either side.

A range of models is available to suit the needs of projects of different sizes and complexity levels. Our products may be customized for particular sets of requirements.

The devices come with a free software library, allowing easy integration into any system. They feature automatic image processing, VIZ (visual inspection zone), MRZ (machine readable zone), and RFID chip data reading as well as authentication of standard safety features.

Main benefits

- Large scanning window for easier document placement
- Clear visual and audio feedback: LEDs, buzzers
- Reading and verification of ICAO and non-ICAO documents with optional authentication against identity fraud
- Digital and printed 1D/2D barcode recognition
- Single-step OCR and RFID reading and writing
- Entry/Exit System (EES) compliance

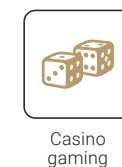
Key features

- Visible white, IR, UV-A illumination, and OVD visualization
- LED-indicated operation feedback for better user experience
- Adaptive Light Control (ALC) and Reflection Removal (RR) for filtering out interferences

3 years manufacturer's warranty
for the device



Combo Scan Full-Page ID-1 and MRZ Scanner



Casino
gaming



Visitor
management



Corporate
receptions



Car rental



Night clubs

A **USB-powered** universal scanner
that **fits into your palm**

Supercharge your data entry workflow

Combo Scan is a compact, fully automated ID and passport scanner designed for data entry. Forget typing: place the ID on the scanning window to automatically capture MRZ (machine readable zone) and VIZ (visual inspection zone) of ID documents and transfer data to reservation forms, contracts, customer files, and more.

Combo Scan captures high-resolution images and processes them for the best OCR results.

The no-moving parts design ensures maintenance-free operation. The scanner operates on a single USB, requiring no external power supply.

The device comes with a free software library, allowing easy integration into any system, and featuring automatic image processing, MRZ data reading and authentication of standard safety features. For VIZ field reading and authentication, optional software add-on is available.

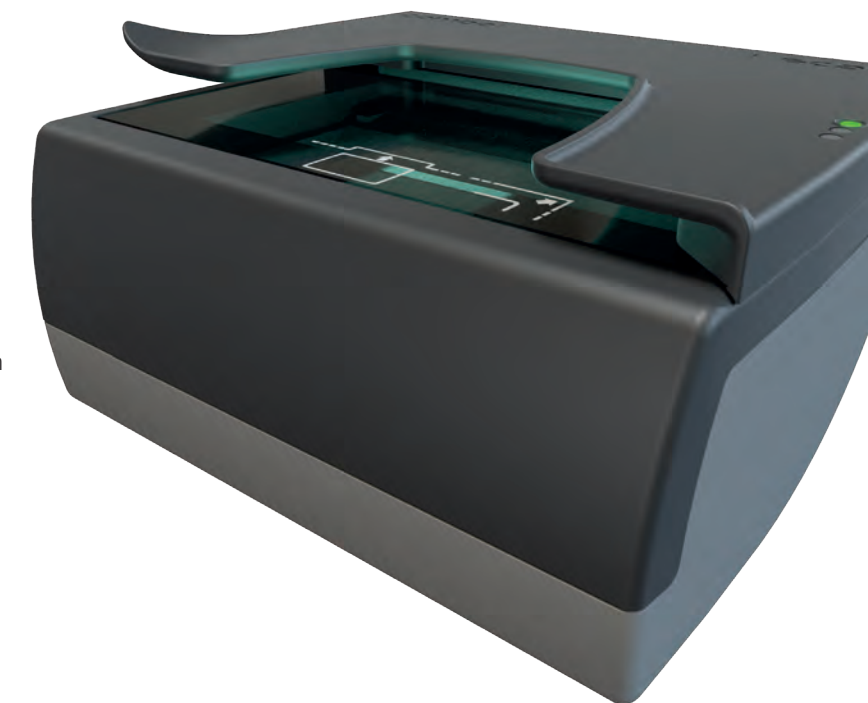
Main benefits

- MRZ reading and full-page ID-1 scanning in one device
- Suitable for portable use with a laptop
- High-quality reading in all light conditions
- Quick and accurate OCR and 1D/2D barcode reading

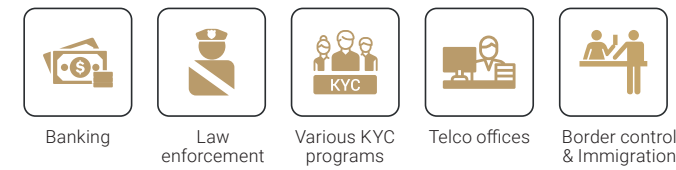
Key features

- Ultra compact size: 152 mm × 130 mm × 82 mm (5.98" × 5.12" × 3.23")
- High resolution 500 PPI imaging with visible white, IR, UV-A illumination
- Powered by a single USB connection
- LED-indicated operation feedback for better user experience
- Adaptive Light Control (ALC) and Reflection Removal (RR) for filtering out interferences

3 years manufacturer's warranty
for the device



Software Add-Ons for VIZ Reading and Authentication



VIZ reading and authentication with
geo-specific focus or global coverage

Tailor ID checking to your requirements

You can supplement the default software (provided as a complimentary software library) included in all of our ID scanner and passport reader devices with the VIZ (visual inspection zone) and authentication software modules for specific project needs.

Use the VIZ module to read and process all printed data outside the machine-readable zone (MRZ) and the authentication module to verify the authenticity of identity documents.

The software modules come in a software library and work with ICAO and non-ICAO compliant identity documents. Depending on your requirements, you can include all national identity documents of a single country or the internationally recognized documents of a geographical region or the world.

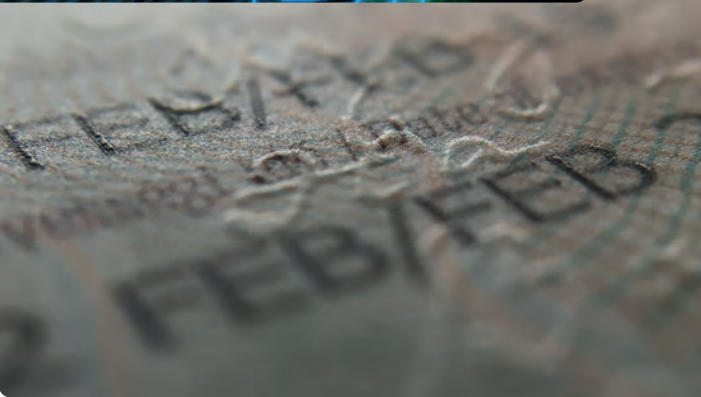
Main benefits

- Worldwide document support
- Advanced verification of document-specific security features
- Support of non-standard Latin characters
- Pattern and geometry analysis
- Optional inclusion of local documents
- Continuous updates with new document types
- Seamless integration through API
- Jura IPI and LetterScreen security visualization

Supported document types

- Internationally accepted travel documents (different types of passports, visas)
- Local identification documents such as ID cards, driver licenses
- Local residence permits, address cards, health insurance cards, etc.

1 year of free software updates included



Fixed & Portable ANPR Devices for Access Control and Parking



Visit our website
for more information



Einar ANPR Camera for Access Control & Parking



LIVEPLAYBACKEVENTSETTINGSADAPTIVERECOGNITIONEinar-5EN | admin

Preview

Event

2022.01.16 13:11:01

ANPR detector

CU 22 069

License plate read: (DNK) CU22069 (confidence: 96%)

AUTHORIZED

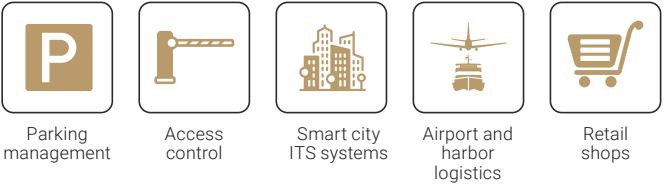
DK CU 22 069

Plate text: CU22069
Country: DENMARK
Main backg. color: LIGHT
Main font color: DARK
Timestamp: 2022.01.16 13:11:01

ANPR IMAGE:

VIDEO PREVIEW:

PLATE IMAGE:



Easy install PoE+ camera
with **onboard ANPR** and video results

Build a parking system with no loops

Einar is an easy-to-use yet powerful ANPR camera, an all-in-one tool designed for frictionless, no-gate parking access control and slow traffic monitoring.

Thanks to its Plug & Play design, single PoE+ cable operation, and simple settings, Einar easily fits into your existing system.

Other advanced features include an onboard ANPR engine, software and hardware triggers, built-in IR, auto-adjustment for the optics, and memory expandability. Einar also supports Carmen® ANPR Cloud with automatic access to the latest versions of all regional ANPR engines and make and model recognition (MMR).

Main benefits

- Camera, illumination, triggering, ANPR, list management, and gate control in one device
- Plug & Play design for easy installation and handling
- Single PoE+ cable operation
- Video included in the event package
- Expandable memory via external microSD card
- Secure data transfer via HTTP, HTTPS, FTP, SFTP
- Easy integration to VMS, parking, and ERP systems via ONVIF/API

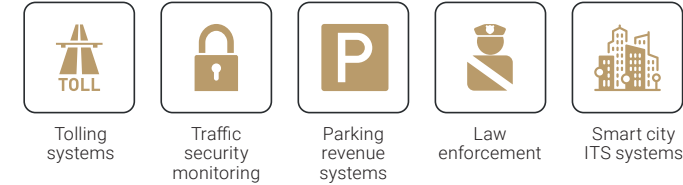
Key features

- Built-in PlateFinder trigger
- 120 dB Wide Dynamic Range (WDR)
- H.264 compression
- ANPR data and event displayed in same image
- Playback and search functions, allowlist support
- Plate recognition powered by onboard Carmen® ANPR Image or ANPR Cloud

3 years manufacturer's warranty
for the device



MicroCAM ANPR Camera for Mobile Vehicle Data Capturing



An all-in-one device
for dashboard or rooftop installation

Monitor traffic while on the go

MicroCAM is a portable ANPR camera designed to be mounted on the roof or the hood of a car. It is the perfect camera for police patrolling, remote tolling, or parking enforcement.

The camera captures the traffic environment of a moving vehicle and automatically detects surrounding vehicles on the move, reading their license plates.

MicroCAM's light and small design ensures easy portability, while the IP67-rated housing guarantees maximum protection from environmental impact. The camera uses a single cable for power and communication. Models with onboard ANPR utilize the Carmen® engine for plate recognition and return ready-made data packages, including images and ANPR data. The camera also supports the integration of signals coming from external GPS modules using NMEA standard protocol. In this case location data is also included in the ANPR results.

Main benefits

- Vehicle rooftop-, roadside-, barrier- and gate-mounting
- Quick and easy installation with single cable connection
- On-the-move plate reading with onboard software at up to 160 km/h (75 mph)
- Location included in data package with additional GPS-ready routers
- Perfect recognition day & night of angled, perpendicular, and parallel parked vehicles
- Lightweight design: 2.0 kg (4.4 lbs)

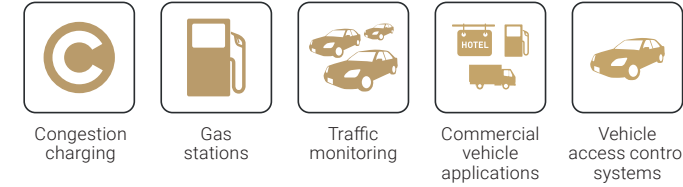
Key features

- Single-cable PoE+ powering
- 30 FPS frame rate
- Built-in infrared illumination
- IP67-rated impact resistance
- ONVIF compliance for integration into any VMS
- Two optic configurations (wide-angle or long-range lens)
- Support of NMEA-compatible GPS routers

3 years manufacturer's warranty
for the device



Carmen® BOX for Video Streams of Any Source



The renowned performance of Carmen®
in a **camera-independent device**

Add ANPR and MMR data to any video stream

Based on the NVIDIA® Jetson Nano™, Carmen® Box is a standalone device that allows you to enhance your IP camera with plate recognition function. Make and model recognition (MMR) is also available via Adaptive Recognition Cloud.

Connect it to your PoE-supported camera and your network to get license plate data and event-based video recordings. The easy-to-use interface helps with the proper settings. The IP video stream gets forwarded to your database, completed with ANPR and MMR data.

The device provides accurate vehicle and plate data for traffic analysis. You can create an access control system without reconstruction and downtime using the stream of an overview camera, or monitor traffic using an existing CCTV security system.

Carmen® BOX also natively supports GDS, our database middleware for event storage, analytics, and data visualization.

Main benefits

- Add on-premise plate recognition to any IP camera
- Video-based, highly accurate detection
- GPU-accelerated plate detection via NVIDIA Jetson
- Plug & Play for easy installation and handling
- Single interface to handle multiple cameras
- Video included in the event package
- Easy integration to VMS, parking, and ERP systems via Onvif/API

Key features

- Intuitive graphical user interface
- Easy streaming with direct link
- Onboard and cloud-based plate recognition powered by Carmen®
- ANPR data and event displayed in the same image
- Allowlist support for access control



1 year of free engine updates included

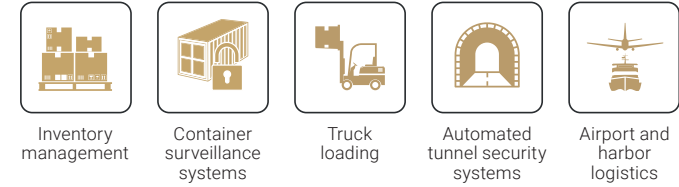
Carmen® Industrial Code Recognition Software Libraries



Visit our website
for more information



Carmen® OCR Software Library for Container Code Recognition



Recognition of **ISO6346**, **MOCO** and **ILU codes** from image **sequences**

Track container codes with utmost accuracy

The Carmen® OCR software supports shipment tracking by extracting and reading international ISO/ILU/MOCO and North American regional container codes. The extracted information can be saved to a database or transferred to an IT system, as the software integrates seamlessly with any end-user application through API.

Carmen® OCR processes image sequences from multiple sources to guarantee the best OCR results. We recommend a 3-camera setup for maximum accuracy.

The automatic reading of ISO 6346 (BIC code), ILU (European Loading Unites), and MOCO (Montan Container) codes of intermodal shipping containers simplify road, railway, and harbor operations significantly, in which BIC codes serve as the primary identification for containers.

Main benefits

- Accurate reading of ISO 6346 (BIC), MOCO, and ILU codes of 170 million shipping containers worldwide
- Camera-independence
- Easy integration via API
- Flexibility to suit independent project needs
- Compatibility with Adaptive Recognition Vidar for Containers cameras for building an entire container code reading system

Key features

- Support of horizontal and vertical codes
- Best images selected from a sequence for higher accuracy
- ASCII and Unicode output formats
- Confidence included in results, checksum validation
- Support of multiple operating systems

1 year of free engine updates included



Carmen® ADR Software Library for Dangerous Goods Code Recognition



Tolling
System



Gas
stations



Traffic
monitoring



Smart city
ITS systems



Automated
tunnel security
systems

Recognition of ADR and IMO (IMDG) codes of hazardous materials

Complement ANPR with hazmat recognition

The Carmen® ADR software recognizes ADR codes and Hazard Identification Numbers (HIN) of vehicles carrying hazardous materials with exceptional accuracy (near 0 false positive rates). It also recognizes IMDG codes issued by the International Maritime Organization (IMO), found on containers and trailers.

The software processes the top (Kemler code) and the bottom row (substance ID) of the orange ADR signs. It indicates primary and secondary hazards, enabling emergency responders to get critical information about potential dangers quickly. Empty codes standing for multiple dangerous goods are also recognized.

Recognition of such codes increases safety on roads, bridges, tunnels, and wherever hazardous materials are transported.

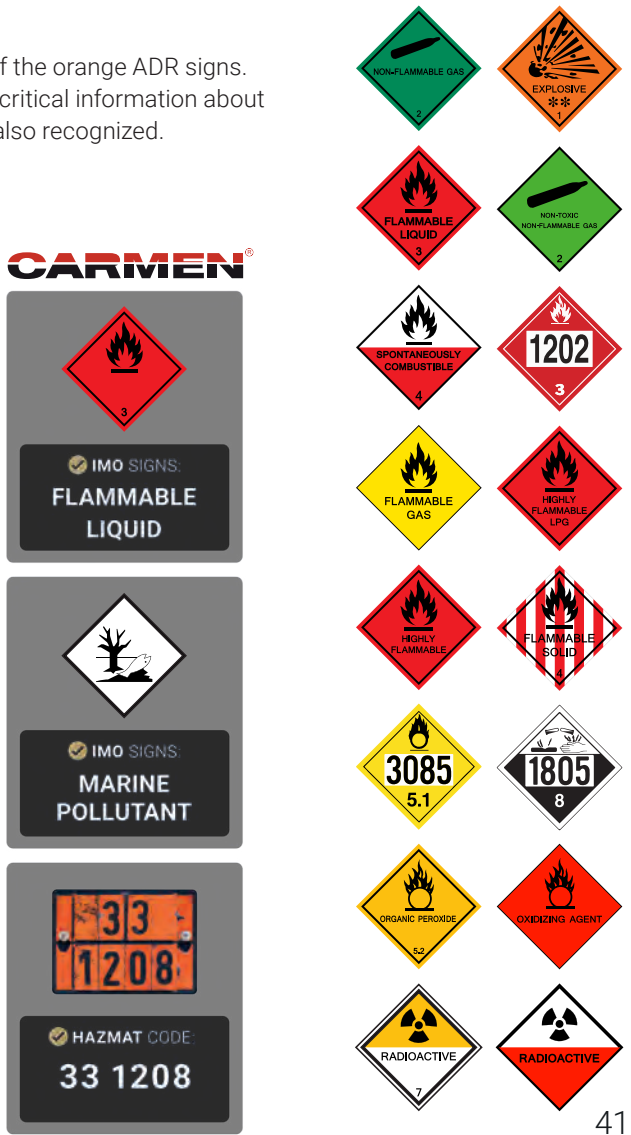
Main benefits

- Fast and reliable code reading
- Scalability to projects of any size
- Global coverage of hazmat symbols
- Camera-independence
- Easy integration via API

Key features

- Support of ADR, E-ADR, HIN, KEMLER, and IMO codes
- Confidence and code coordinates included in results
- Runtime code filtering to reduce false reading
- Best images selected from a sequence for higher accuracy
- ASCII and Unicode output formats
- Supports multiple operating systems

1 year of free engine updates included

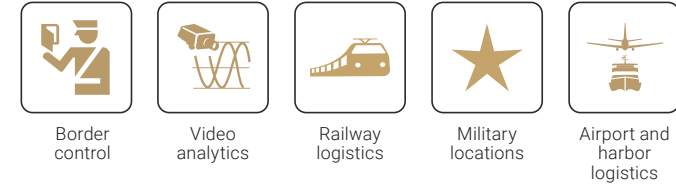


Carmen® OCR Software Library for Railway Code Recognition



33 RIV Zacens CFPM chez
87 E-ATRR ATIR-RAIL
7929 096-8 P TEL : 33 (0)1 43 87 80 98
22440kg wagons@atir-rail.com
Gare d'attache : VILLENEUVE LE ROI

CARMEN®
✓ OCR RESULT:
33 87 7929 096-8



**Recognition of railway codes
regardless of their placement**

Read international railway codes

The Carmen® OCR software automatically extracts and reads international railway codes (UIC) as well as regional codes used in Brazil (BRA), Russia (RUS), and North America (AAR). It also handles North American chassis numbers (CHASSIS).

UIC codes are unique and internationally standardized identification numbers found on both sides of the wagon, as laid down by the International Union of Railways. The placement and font type of these codes can vary, but the software is flexible enough to recognize them with great accuracy.

The gathered data may be processed for statistical, transport, and logistics purposes.

Main benefits

- Tolerance of variety in code placement and font types
- Camera-independence
- Easy integration via API
- Scalability to projects of any size

Key features

- Support of UIC, BRA, RUS, and AAR railway codes and chassis numbers
- CPU core-based licensing for multithreading
- Image sequence-based results for higher accuracy
- Confidence and code coordinates included in results
- Runtime code filtering to reduce false reading
- Best images selected from a sequence for higher accuracy
- ASCII and Unicode output formats
- Support of multiple operating systems

1 year of free engine updates included



Carmen® OCR Software Library for Commercial Vehicle Code Recognition



USDOT 654321

CARMEN®

✓ **USDOT RESULT:**
654321



Journey time measurement



Traffic monitoring



Commercial vehicle applications



Smart city ITS systems



Airport and harbor logistics

Identification of U.S. commercial vehicles

Read and process DOT numbers of vehicles

The Carmen® OCR software has been created to extract and read the DOT number of commercial motor vehicles (CMVs) in the United States. These are required by the U.S. Department of Transportation for businesses that transport passengers for a fee or haul cargo across state lines.

The software functions as a highly accurate tool for automatic identification of these numbers, required to be displayed on both sides of vehicles.

With its ability to collect and audit inspection and compliance information, the software offers the DOT number, date, time, and location for CMV systems to verify key information in state and federal databases in real-time.

Main benefits

- Camera-independence
- Easy integration via API
- Fast and reliable code reading
- Scalability to projects of any size

Key features

- CPU core-based licensing for multithreading
- Best images selected from a sequence for higher accuracy
- Image and ASCII output format
- Confidence included in results for characters and whole code
- Support of multiple operating systems

1 year of free engine updates included



USDOT 432165

✓ **USDOT RESULT:**
432165

Cameras for Any Type of Traffic Monitoring and Speed Enforcement



Visit our website
for more information



Vidar ANPR Cameras for Any Type of Traffic Monitoring



Tolling
systems



Access
control



Traffic
monitoring



Journey time
measurement



Smart city
ITS systems

**Software and laser triggers,
remote setup and control**

Reach 100% detection without external triggering

Vidar is a powerful ANPR camera developed for any type of traffic monitoring tasks. It is designed to solve common integrator problems like lengthy setup, missed events, and inaccurate recognition.

Vidar's unique features include a built-in laser for reliable vehicle detection, customizable triggering options, remote-control motorized zoom, focus, and iris, and advanced auto-brightness function. It provides perfect ANPR-ready images of reflective and non-reflective plates thanks to the frame parity flashing technology. A dual-core CPU is available for advanced image-based triggering and providing up to 8 streams continuously.

Main benefits

- No missed vehicles thanks to a combination of triggers
- Precise, white LED/IR-based imaging even under extreme outer conditions
- Handling of colored, reflective and non-reflective plates
- Suitable for surveillance purposes and ANPR
- Remote control and easy maintenance thanks to modular design
- Resistance to physical impact and weather

Key features

- Models with built-in laser trigger available
- PlateFinder software trigger
- 4-core CPU for outstanding performance
- Global shutter sensors, optical and digital zoom, focus & iris lenses
- Light sensor for automated illumination- and imaging settings
- Secure data transfer via HTTPS
- IK10 and IP67 certified, 100% aluminum cast design

3 years manufacturer's warranty
for the device



Vidar Smart ANPR Cameras with Embedded Processing



Plate text: ل ع م ٣٦٧
Country: SAUDI_ARABIA
Main backg. color: WHITE
Main font color: BLACK

Plate text: CU22069
Country: DENMARK
Main backg. color: LIGHT
Main font color: DARK

Plate text: 京 KP8928
Country: CHINA
Main backg. color: DARK
Main font color: LIGHT



Congestion charging



Traffic security monitoring



Video analytics



Law enforcement



Smart city ITS systems

Onboard ANPR with **industry-leading performance** and **dual optics**

Cover all functions with a single device

The Smart models of Vidar include all the features of Vidar cameras, with the addition of embedded ANPR powered by the Carmen® engine.

The dedicated quad-core 4x1.4GHz CPU runs the pre-installed ANPR engine, making the device one of the most powerful standalone ANPR cameras on the market. The camera provides speedy and accurate vehicle identification with unparalleled global coverage of Latin, Arabic, Cyrillic, Thai, etc. plate types. It can also perform image-based vehicle speed estimation with high accuracy. Moreover, it features a dual optic system with varifocal lenses.

Make and model recognition (MMR) and dangerous goods code recognition are optionally available.

Main benefits

- Accurate onboard ANPR with worldwide coverage
- Models available for multilane detection
- 100% vehicle detection rate with laser triggering
- Advanced data security through multi-layer encryption
- Image-based speed estimation available
- Clear imaging even under extreme outer conditions
- Suitable for surveillance purposes
- Full remote control and easy maintenance thanks to modular design
- Resistance to physical impact and weather

Key features

- Dedicated 4-core processing for ANPR
- Dual-optic system: ANPR+overview or ANPR+ANPR
- Models with built-in laser trigger available
- PlateFinder software trigger
- Global shutter sensors, optical and digital zoom, focus & iris lenses
- Secure data transfer via HTTPS
- Local storage with strong encryption
- Optional make and model recognition
- IK10 and IP67 certified, 100% aluminum cast design

3 years manufacturer's warranty
for the device



Vidar Speed Cameras for Speed Enforcement and ANPR



Speed
enforcement



Journey time
measurement



Traffic security
monitoring



Traffic
monitoring



Law
enforcement

**METAS-approved spot and average
speed measurement on multiple lanes**

Choose from multiple radar settings

Vidar Speed cameras display all the Vidar Smart models' features and are equipped with a multi-lane, multi-object tracking radar. They perform vehicle categorization and provide speed measurement certified by the Swiss Federal Institute of Metrology (METAS).

Thanks to the ultra-high definition radar, the sensor can separate objects based on their speed, distance, horizontal and vertical angles. Its sturdy design ensures resistance to adverse weather conditions.

The radar can detect up to 128, and simultaneously track up to 64 different objects. Vidar Speed also detects closely spaced vehicles in multi-lane traffic scenarios or in stop-and-go traffic at busy intersections.

Main benefits

- Certified speed measurement up to 320 km/h (200 mph)
- 99%+ vehicle detection rate in multi-lane scenarios with dense traffic
- Accurate onboard ANPR with worldwide coverage
- Clear imaging even under extreme outer conditions
- Suitable for surveillance purposes
- Resistance to physical impact and weather

Key features

- Multilane, multi-object 4D radar for triggering & speed detection
- Dual optics: one for vehicle close-up, one for overview
- 5 vehicle categories based on vehicle length
- Dedicated quad-core processing for outstanding ANPR performance
- Global shutter sensors, optical and digital zoom, focus & iris lenses
- Light sensor for automated illumination- and imaging settings
- Secure data transfer via HTTPS
- IK10 and IP67 certified, 100% aluminum cast design

3 years manufacturer's warranty
for the device



Vidar Axle Camera for Vehicle Axle Counting



Tolling
systems



Video
analytics



Commercial
vehicle
applications



Automated
tunnel security
systems



Airport and
harbor
logistics

Image-based axle counting with a
single, **intelligent camera**

Capture complete line scan images of vehicles

Vidar Axle Count is a compact yet robust camera designed for axle identification and counting in road tolling, ferry access control, logistics, and other operations. The camera provides line-scan type reconstructed images with metadata containing axle count and vehicle category, which can be further processed by any kind of traffic-related business intelligence.

The camera handles challenging conditions such as darkness and inclement weather with ease. Detection of vehicles is highly accurate thanks to the industry-first built-in laser trigger technology complemented by an image-based vehicle detection algorithm. You can optionally connect the camera to external triggers.

Main benefits

- Standalone operation without external equipment
- Vehicle categorization based on axle count via image recognition
- Accurate detection and image capturing of slow and fast moving vehicles
- Local storage with strong encryption for standalone operation, when connection is not available
- Lift & retractable axle detection for accurate tolling
- Extra close-up installation possible (2.5-3m [8.2 ft - 9.8 ft])
- Resistance to physical impact and weather

Key features

- Dual optics: one for line scan images, one for overview
- 3x optical zoom
- IR Bypass filter
- 760 nm built-in LED light
- Line scan images in results displaying entire vehicle

3 years manufacturer's warranty
for the device



Vidar PAX Camera for Passenger Counting & Identification



Border control



Traffic security monitoring



Congestion charging



Commercial vehicle applications



Automated tunnel security systems

Perfect images of passengers through all types of windscreens

Add passenger counting to your ANPR system

Vidar PAX cameras are designed to capture high-resolution images suitable for accurate recognition and facial identification of vehicle occupants. The camera handles challenges such as high speed, tinted windscreens, darkness, high-glare sunlight, bad weather, and more.

Vidar PAX allows police and authorities to determine who is inside vehicles with accuracy and speed. This is enabled by extra-wide lenses and synchronized, built-in and optional external high-performance LED illuminators. For a complete passenger counting system, we suggest a multiple camera setup.

Main benefits

- 24/7 recognition of vehicle occupants with high accuracy
- Strong encryption for data security
- No disturbance to drivers, EU-standard IR
- No missed vehicles thanks to the built-in laser trigger
- Easy maintenance thanks to modular design
- Resistance to physical impact and weather

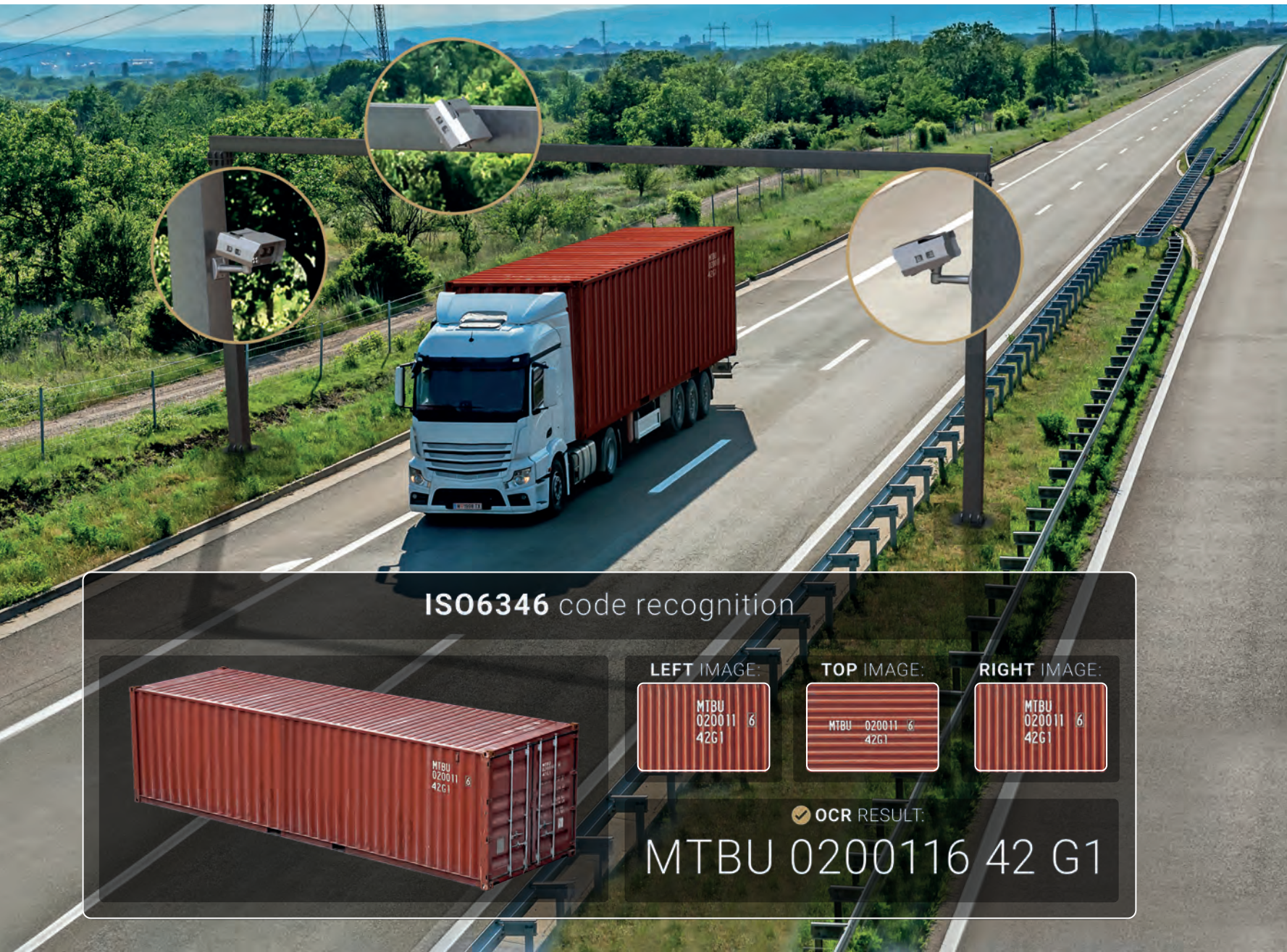
Key features

- Dual optics: one grayscale for face and one color for overview
- 3x optical zoom and IR Bypass filter
- 760 nm LED light for accurate recognition through any windscreen types and light conditions
- Dedicated software module for image pairing
- Continuous image capturing of passing vehicles at city traffic speed

3 years manufacturer's warranty
for the device



Vidar Container Camera for Container Code Capturing

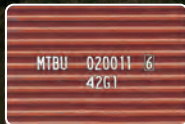


ISO6346 code recognition

LEFT IMAGE:



TOP IMAGE:



RIGHT IMAGE:



✓ OCR RESULT:

MTBU 0200116 42 G1



Commercial
vehicle
applications



Traffic security
monitoring



Smart city
ITS systems



Automated
tunnel security
systems



Airport and
harbor
logistics

**Laser trigger-assisted recognition of
ISO, MOCO, and ILU codes**

Get line scan images along with container code metadata

The Vidar Container Camera is specially developed for container code reading. It supports the tracking of intermodal shipping containers through fast data processing. The camera takes ideal images for reading ISO, MOCO, and ILU codes, regardless of container size and surface. The built-in software processes the codes and transforms them into ready-to-use event packages.

The cameras are protected by IK10 & IP67 shock- and weatherproof housing. With a minimum amount of moving parts, they are vandal-proof, and work in all light and weather conditions.

Thanks to its dual-lens (one for overview and one for close-up image) design, this camera can also perform general CCTV surveillance aside from capturing the codes of passing containers.

Main benefits

- Precise container code reading by a camera-only system
- Accurate container detection, line scan image output
- Support of EU and global standard containers
- Images containing entire object regardless of length
- On-board recognition for standalone systems
- Extra close-up installation possible (2.5-3m [8.2 ft - 9.8 ft])
- Resistance to physical impact and weather

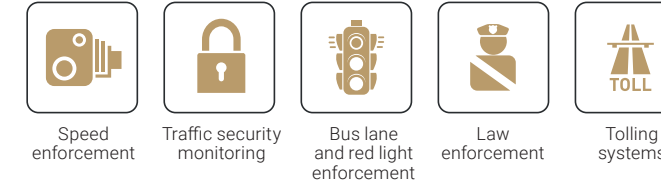
Key features

- Built-in laser for non-intrusive triggering
- 3-9mm wide lens
- 760nm built-in LED illumination
- IR+White LED illumination for red characters and/or containers
- Contrasted images of both flat and knurled container surfaces

3 years manufacturer's warranty
for the device



S1 ANPR Camera for Portable Speed & Traffic Enforcement



2-minute setup, **onboard traffic analytics, wireless communication**

Detect traffic violators from far away

S1 is a portable, all-in-one ANPR camera specially developed for traffic enforcement authorities. It provides certified speed measurement and identifies speeders from a 1.2km (0.75 mi) distance. The onboard wanted list enables the camera to identify searched vehicles. S1 also detects red light and solid line crossing, wrong-way driving, and other traffic violations.

As soon as evidence of the violation is captured, the file gets encrypted and instantly transmitted to a central server through a secure channel.

You can get the device ready for operation in less than 2 minutes. There is no need for any add-ons: ANPR engine, illumination, laser tracker, GPS, Wi-Fi, and 4G modem are included inside the camera's protective casing.

Main benefits

- All-in-one device with no need for add-ons
- Easy, 2-minute setup and portability
- Autonomous roadside/in-vehicle operation
- Certified speed measurement
- Complete, court-admissible event data packages
- Traffic law violation detection
- Live data transfer through 4G/Wi-Fi
- Weatherproof design

Key features

- Speed detection up to 320 km/h (200 mph)
- Video-based built-in triggers with AI image analytics
- Secure data transfer via HTTPS and encrypted data packages
- Dual sensor: one ANPR, one overview
- Automatic brightness control
- Motorized iris and zoom & focus
- IP54-compliant, fiberglass-reinforced plastic shell

3 years manufacturer's warranty
for the device



CARMEN

Carmen® ANPR Software Family for On-Premise or Cloud Applications





Visit our website
for more information



Carmen® FreeFlow ANPR Engine with Software Development Kit





IMO SIGNS:

HAZMAT CODE:

MARINE POLLUTANT

33 1208




Plate text: 20 30234

Country, State: ARE, ABU_DHABI

Category: COMMON

Dedicated Area Color: RED

Main Background Color: WHITE

Main font color: BLACK




Plate text: 7MD2405

Country, State: USA

Main backg. color: LIGHT

Main font color: DARK


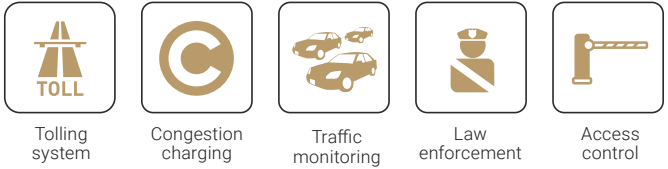


Plate text: ۶۱ب۵۷۳۱۱

Country: IRAN

Main backg. color: LIGHT

Main font color: DARK



Maximum accuracy with flexible licensing and multithreading

Go for top recognition rates and coverage

The Carmen® FreeFlow software library is designed to read and process license plates fast, with outstanding accuracy and low false-positive rates even for far-from-ideal images. Used by OEM partners and integrators in 160+ countries in 120 000+ installations, Carmen® is the reference name for quality ANPR from Brazil to Japan, from the Middle-East and Africa to North America, from Asia-Pacific to Europe.

Carmen® offers country-independent recognition and familiarity with a wide range of alphabets, including Latin, Arabic, Cyrillic, Thai, and more. It is hardware-independent and runs on Windows and Linux. Applications that can benefit from the fast and accurate on-premise automatic recognition capabilities of Carmen® include traffic monitoring, security, highway tolling, speed and journey time measurement, access control, and more.

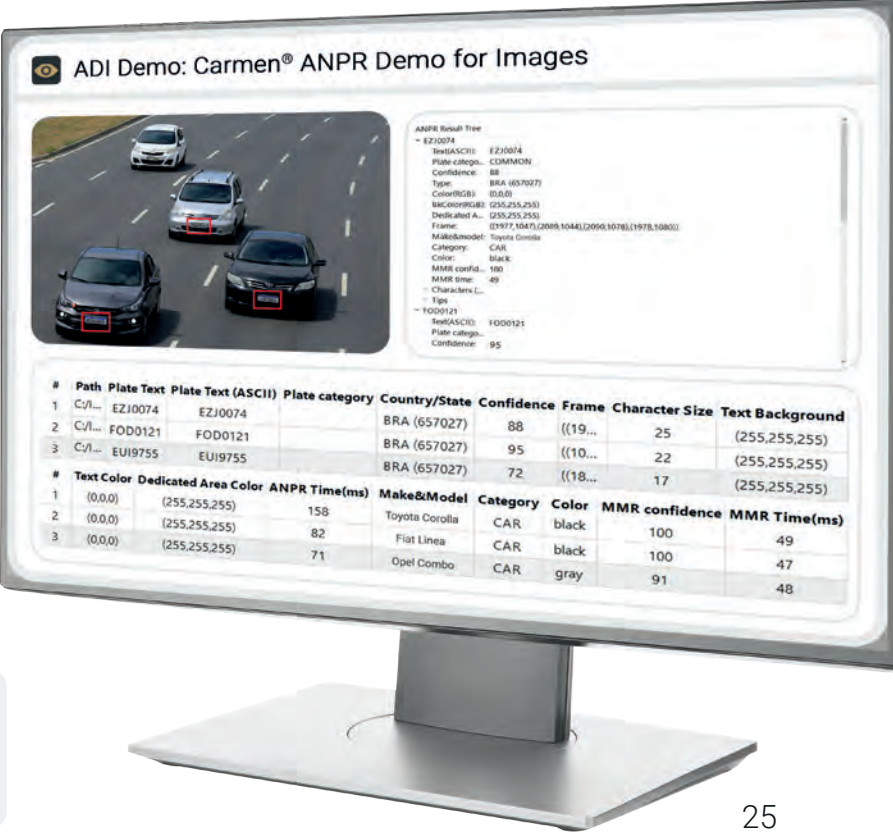
Main benefits

- Flexible licensing for scalability to any project size
- Reliable ANPR even for subpar images
- 95%-99% real-life accuracy for all plates
- Low false-positive rates suitable for second verification in toll enforcement
- Sample programs and quick support response
- Global coverage with local customization options
- Integrate once and use anywhere in the world
- Camera-independent software

Key features

- 38,000+ plate types recognized from 160+ countries and 20 regions
- CPU core-based licensing for multithreading
- Country, state or province, and plate type recognition
- Optional make and model recognition
- Plate color recognition
- Optional dangerous goods and IMO codes recognition

1 year of free engine updates included



Carmen® GO ANPR & MMR from Camera Streams



Windows application
compatible with any IP camera

Get ANPR and MMR data from video files and streams

Carmen® GO is our Plug & Play ANPR solution that works with any camera. Installation and setup take less than 3 minutes: link your camera stream(s) to get ANPR and MMR results directly. An easy-to-use, intuitive GUI ensures that anyone can quickly set up and learn to operate the system without special training.

Carmen® GO identifies vehicles by smart video triggering and returns ANPR and MMR data with country-specific details. The application can handle up to 8 incoming streams simultaneously.

The output data provided by the app includes plate number, country code, image IDs, date, time, and, optionally, vehicle make, model, and color.

Main benefits

- Easy integration via REST API
- Worldwide coverage via Carmen® FreeFlow engine
- No need for triggers and external vehicle detection
- Scalable solution handling up to 8 streams simultaneously
- Flexible licensing options to fit your needs
- Handles stream from fixed installation or from moving vehicle

Key features

- 38,000+ plate types recognized from 160+ countries and 20 regions
- Licensing based on number of streams and CPU cores
- Built-in advanced detection algorithm
- Various output formats: CSV datafile, FTP upload and/or internal database (available through JSON REST API)

1 year of free engine updates included



Adaptive Recognition Cloud Software as a Service



Video analytics



Traffic monitoring



Parking systems



Gas stations



Tolling system

Instant ANPR results from
any image, anywhere in the world

Create an ANPR system within 1 hour

Adaptive Recognition Cloud is a cloud-based software as a service that lets you add a pay-per-use plate recognition function to your system without having to invest in a dedicated server. To aid your decision, you can test the service through 200 free readings per month.

It is the perfect solution for those looking for a robust, secure, scalable, and easy-to-manage solution with zero capital expenditures (CapEx) involved. Working with any programming language on any operating system through REST API, it analyzes images sent from a local machine, server, or any web-based URL.

You can use Adaptive Recognition Cloud with Adaptive Recognition's or 3rd-party ANPR cameras. Alternatively, turn your mobile phone into a plate recognition device with the Carmen® Mobile application, which is powered by Adaptive Recognition Cloud.

Main benefits

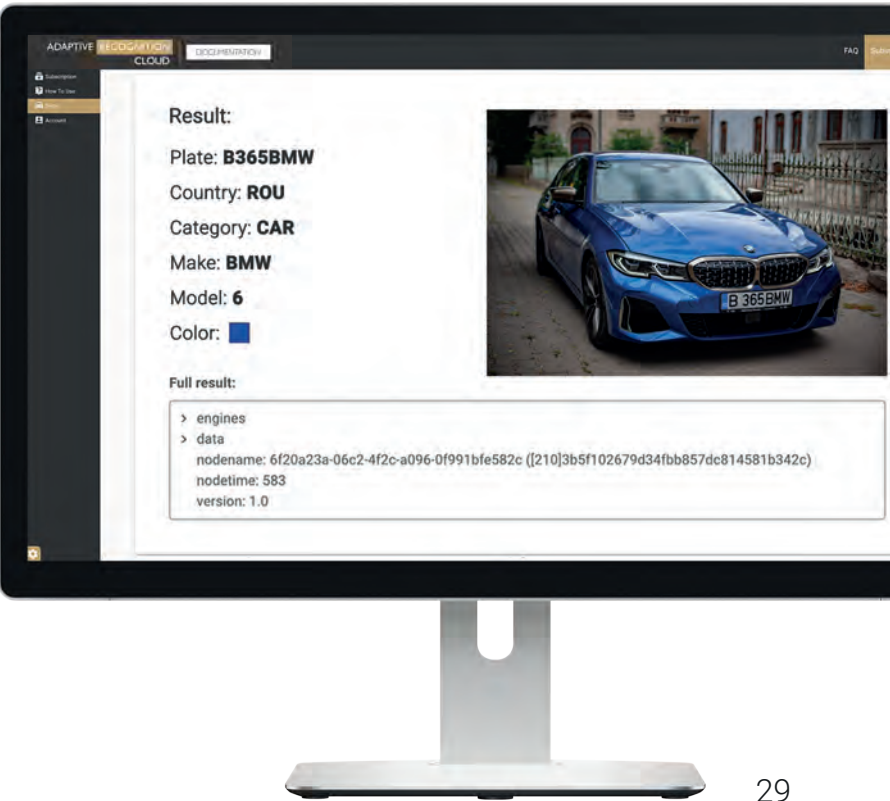
- Easy integration through REST API
- No need for a dedicated server and other capital expenditures
- Only pay for what you need through a wide range of credit packages
- Access to all regional ANPR engines with a single subscription
- Automatic access to latest engine updates
- Free trial restarting every month available
- Data security (no data is stored) and GDPR compliance
- Worldwide coverage

Key features

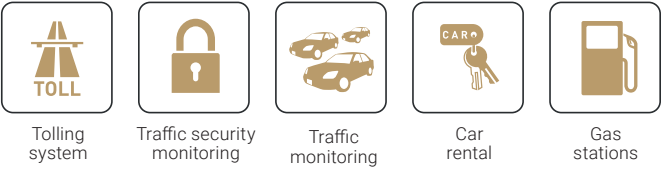
- 38,000+ plate types recognized from 160+ countries and 20 regions
- MMR data included in returned ANPR event packages
- Data retrieval in JSON
- Camera-independent software

Always up-to-date

CARMEN®



Carmen® MMR Software Add-On



Make, model, and color recognition
for any version of Carmen® ANPR

Get geo-specific brand and model data

Carmen® MMR is an add-on software developed for the Carmen® ANPR Image, ANPR Stream, or ANPR Cloud plate recognition software. It is also available for all Adaptive Recognition traffic monitoring cameras that feature onboard or cloud-based ANPR.

The optional add-on enables the software to recognize the brand, model, color, and category of vehicles based on front or rear images. It brings value in many application areas, from tolling through identifying stolen vehicles to creating statistics for marketing in retail parking lots.

Carmen® MMR is available with region-specific engines. 230+ vehicle makes, 1700+ models from 7 geographical regions worldwide are recognized with high accuracy. Brand and model names are returned in a geo-specific manner.

Main benefits

- Accurate make, model, color, and category recognition
- Vehicle data for access control, marketing, and other purposes
- Worldwide coverage through regional engines
- Regularly updated database
- Results delivered 4 times faster compared to other MMR engines on the market

Key features

- 230+ vehicle makes (brands) recognized
- 1700+ vehicle models recognized
- Vehicle category recognized
- Colors recognized even in low light conditions
- Cloud or on-premise solution

1 year of free engine updates included

CARMEN®



Carmen® Mobile Android App for ANPR & MMR



Traffic security monitoring



Video analytics



Law enforcement



Access control



Smart city ITS systems

Data collection for ANPR Cloud
even from fast-moving vehicles

Turn your mobile phone into an ANPR device

Carmen® Mobile is a free, ready-to-use application for collecting ANPR data with an Android phone. The app works with any Carmen® ANPR Cloud subscription, including the free trial. It either collects data from the phone camera or retrieves images/videos from 3rd-party applications.

Uniquely on the market, Carmen® Mobile can collect ANPR-ready data even from fast-moving vehicles. Returned events include license plate and, optionally, MMR, GPS data, and timestamp.

Potential use cases include on-the-go traffic monitoring and parking control, wanted car detection, and visitor management.

Main benefits

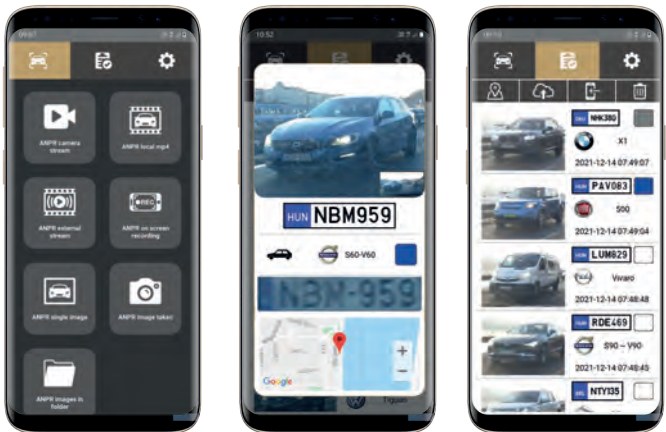
- Accurate ANPR even with a speed difference of 180 km/h (120 mph)
- 38,000+ plate types, 230+ vehicle models, and 1700+ types recognized
- Free trial available of Carmen® ANPR Cloud
- Can be integrated into existing apps
- Processing of live feeds, images, and video recordings
- Offline data collection, recognition can be done later
- Reliable recognition even on images taken at nighttime

Key features

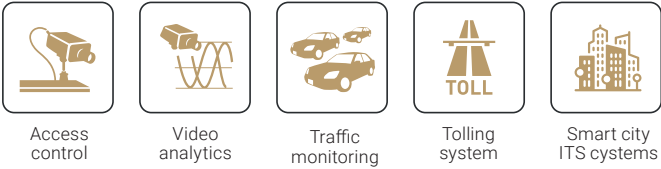
- Automatic or manual capturing
- Smartphone camera or screen as input source
- Customizable event packages and alert hotlists
- Digital signature to validate and protect sensitive data
- Easy upload of events to chosen server
- Ready-made presets for different use case scenarios

Always up-to-date
via Carmen® ANPR Cloud

CARMEN®



Carmen® Nano ANPR for NVIDIA Jetson-Based Computers



On-premise software for ANPR and MMR with **video-based triggering**

Upgrade any IP camera with ANPR

Carmen® Nano ANPR is a software module especially developed for NVIDIA® Jetson™-based computers.

Leveraging the deep learning capacity and processing power of NVIDIA Jetson Nano's graphics processing units, it performs video-based triggering and provides ultra-fast, accurate ANPR. Its highly developed AI and analytics capabilities represent great potential in a wide range of applications.

Carmen® Nano is ideal for those who wish to build their own futureproof traffic analytics system based on an NVIDIA Jetson board and handle video streams from any IP camera with an on-premise ANPR software.

Main benefits

- On-premise plate recognition for building an ANPR system
- No need for triggers: video-based, highly accurate detection
- Rich set of features including search, statistics, allowlists and more
- Easy integration via API
- Camera-independent software
- GPU-accelerated plate detection

Key features

- 38,000+ plate types recognized from 160+ countries and 20 regions
- Triggering via hardware-accelerated PlateFinder module
- Adjustable detection area, various factory presets
- Event filtering based on confidence
- Videos included in recorded events



1 year of free engine updates included

Contact

For general and product inquiries, the simplest way to get in touch with us is by filling in the form on our homepage [adaptiverecognition.com](https://www.adaptiverecognition.com). Alternatively, contact us through one of our regional offices.



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AR Product Information Center

Find all product-related information from technical datasheets, through installation guides to user manuals, how-to videos, and more.



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Twitter



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Digital Product Catalog



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ADAPTIVE RECOGNITION