Product Catalog

analytics perfected
Image analytics perfected - since 1991.
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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.

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.
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 leading 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.

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
Osmond L and R
ID Scanners with USB Interface

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
- IPS4 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 and F
Standalone ID Scanners

Make the most out of network environments

Osmond network models are 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 devices. They 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, they can be used in pool mode, connecting to multiple clients in the network.

Osmond N models connect to networks via Ethernet, while F models connect through Ethernet, Wi-Fi, or 4G.

Models come 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.

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
- DVD 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

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

3 years manufacturer’s warranty for the device

Models enhanced with dual interface and Wi-Fi/4G connection

Osmond N and F
Standalone ID Scanners
Osmond and Combo Smart Kiosk Scanners Designed for Built-in Use

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 DVD visualization
- LED-indicated operation feedback for better user experience
- Adaptive Light Control (ALC) and Reflection Removal (RR) for filtering out interferences

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

3 years manufacturer’s warranty for the device
Combo Scan
Full-Page ID-1 and MRZ Scanner

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
Passport Readers and ID Scanners With OCR & Authentication Software

Software Add-Ons for VIZ Reading and Authentication

21 year of free software updates included

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.

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

Tailor ID checking to your requirements

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Supported document types

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

Visit our website for more information
Carmen® ANPR Image Software Library

Go for top recognition rates and coverage

The Carmen® ANPR image 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

Maximum accuracy with flexible licensing and multithreading
Carmen® ANPR Stream
Video Processing Software

Get ANPR and MMR data from video files and streams
Carmen® ANPR Stream (formerly known as 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.

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)

Main benefits
- Easy integration via REST API
- Worldwide coverage via Carmen® ANPR Image 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

ANPR + MMR EVENTS
Plate text:
Country: ITALY
Make: FERRARI
Model: CALIFORNIA
Vehicle color:
Main body color:
Main front color:
Time stamp: 2022-03-15 13:00:55 GMT

Event:
Country:
Make:
Model:
Vehicle color:
Main backg. color:
Main font color:
Time stamp:

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

Windows application compatible with any IP camera

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1 year of free engine updates included

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

Windows application compatible with any IP camera
Carmen® ANPR Cloud Software as a Service

Create an ANPR system within 1 hour
Carmen® ANPR 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 ANPR 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 ANPR 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
- MRR data included in returned ANPR event packages
- Data retrieval in JSON
- Camera-independent software

Always up-to-date

Instant ANPR results from any image, anywhere in the world

[QR Code]

Video analytics
Traffic monitoring
Parking systems
Gas stations
Parking systems
Tolling systems
Carmen® MMR Software Add-On

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

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
Carmen® Mobile
Android App for ANPR & MMR

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® Nano ANPR for NVIDIA Jetson-Based Computers

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

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.

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- Videos included in recorded events

1 year of free engine updates included
Carmen® Industrial Code Recognition Software Libraries

Visit our website for more information
Carmen® Container Codes Software Library

Track container codes with utmost accuracy

The Carmen® Container Codes 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® Container Codes 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 Units), 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

Recognition of ISO6346, MOCO and ILU codes from image sequences
Carmen® Dangerous Goods Signs Software Library

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

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

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

Complement ANPR with hazmat recognition

The Carmen® Dangerous Goods Signs 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.

1 year of free engine updates included
The Carmen® Railway Code 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® Commercial Vehicle Codes Software Library

Read and process DOT numbers of vehicles

The Carmen® Commercial Vehicle Code recognition 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.

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

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

USDOT 654321
CARMEN
USDOT RESULT: 654321

1 year of free engine updates included
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

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% aluminium cast design

3 years manufacturer’s warranty for the device
Vidar Smart ANPR Cameras with Embedded Processing

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.

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

Onboard ANPR with industry-leading performance and dual optics
Vidar Speed Cameras for Speed Enforcement and ANPR

**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

**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

**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.

**3 years manufacturer’s warranty** for the device
Vidar Axle Camera for Vehicle Axle Counting

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
Cameras for Any Type of Traffic Monitoring and Speed Enforcement

Vidar PAX Camera for Passenger Counting & Identification

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 windscreens 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

Perfect images of passengers through all types of windscreens
Vidar Container Camera for Container Code Capturing

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

Cameras for Any Type of Traffic Monitoring and Speed Enforcement

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

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Main benefits

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Key features

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- IP54-compliant, fiberglass-reinforced plastic shell

3 years manufacturer’s warranty for the device
Fixed & Portable ANPR Devices for Access Control and Parking

Visit our website for more information
Einar ANPR Camera for Access Control & Parking

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

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. MicroCAM 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.

Monitor traffic while on the go

- 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

Main benefits

- Tolling systems
- Traffic security monitoring
- Parking revenue systems
- Law enforcement
- Smart city ITS systems

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

3 years manufacturer’s warranty for the device
**Carmen® ANPR BOX**

for Video Streams of Any Source

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**Add ANPR and MMR data to any video stream**

Based on the NVIDIA® Jetson Nano™, Carmen® ANPR 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 Carmen® ANPR 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
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. Alternatively, contact us through one of our regional offices.

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