

RECOGNITION CAMERAS & SENSORS

RECOGNITION
SOFTWARE

IDENTITY
DOCUMENT
READERS &
BIOMETRICS



TYPICAL APPLICATIONS

ARH ANPR/LPR technology: CARMEN® and ARH imaging devices help you fight against unlawful activities, provide access, organize data in real time and make everyday life easier and safer through any traffic related application. Some typical utilizations and benefits are described below.

INTELLIGENT TRAFFIC SYSTEMS

Toll collection

Integrating CARMEN® into open road systems allows automated toll collection in free flowing traffic.

Journey time measurement

CARMEN® can easily identify the same vehicle at two or more points on the road, which the system can use for calculating travel time and average travel speed.

Congestion charging

CARMEN® allows automated identification and charging of city drivers as they enter or leave a payment area.

PARKING AND ACCESS CONTROL

Parking revenue systems

Integration of CARMEN® into any parking revenue system allows the setup of ticket-free systems with fully automated operation.

Access control

CARMEN® can be used to identify and verify whether a certain vehicle is authorized to access a restricted area.

Airport and harbour logistics

All vehicle plates and container codes can be identified by using CARMEN® to improve security and to reduce waiting time at the gates.

LAW ENFORCEMENT

Speed enforcement

By using instant speed measurement or section speed calculation between two or more points, CARMEN® and SpeedCAM can efficiently help identify speeding violations.

Bus lane – red light enforcement

CARMEN® is a highly efficient tool to help police stop violators driving in bus lanes or driving through red lights.

Traffic security monitoring

Fixed and mobile systems powered by CARMEN® ensure continuous monitoring of high traffic areas.

HOMELAND SECURITY AND COMMERCIAL VEHICLE MONITORING

Border control

Used at numerous border control points, CARMEN® provides an efficient solution in the fight against terrorism. By monitoring and registering traffic in diverse applications, CARMEN® and ARH cameras can be valuable tools helping to protect your country and to preserve national security.

Commercial vehicle applications

CARMEN® can effectively help commercial organizations in a large number of applications such as gas station payments, hotel check-ins, and weigh station systems. It can also serve as a great marketing tool that logs frequent customers or users.

THE ANPR/LPR PROCESS

WHAT IS ANPR/LPR?

Automatic Number Plate Recognition/License Plate Recognition (ANPR/LPR) is also known as Car Plate Recognition (CPR) or Automatic Vehicle Identification (AVI). ARH's flagship ANPR/LPR technology is CARMEN®.

ANPR/LPR is a traffic surveillance method based on optical character recognition (OCR). A specific OCR algorithm processes captured images or video footage to recognize the plate characters. ANPR/LPR can be implemented in any traffic related application using either an existing CCTV/IP camera system or dedicated ANPR/LPR cameras, which ensure high recognition rates and true 24/7 operation.

HOW DOES ANPR/LPR WORK IN PRACTICE?

The operation of any ANPR/LPR system can be divided into three main steps. It is important to highlight that CARMEN® ANPR/LPR technology provides a fully adaptable solution that can be seamlessly integrated with any existing workflow.

1. Detection & image capturing

At the front end of any ANPR/LPR system there is a camera that captures images of the plates. The camera plays an important role in the ANPR/LPR process as the quality of the captured images highly determines the overall performance of the system. The best results are achieved by using specialized cameras designed for ANPR/LPR.

ARH offers a wide range of dedicated ANPR/LPR cameras that offers seamless compatibility to any ANPR/LPR system while boosting its capability to withstand every adverse environmental condition that may be encountered in the field.

that recognizes the individual characters.

The CARMEN® ANPR/LPR is the world leader in ANPR software, and it's a result of over 22 years of continuous development. It facilitates country-independent recognition, reading of multiple plates from one image, color recognition, state or country identification, accomplishing all of this at an extremely fast processing speed.

3. Data processing

Besides the characters of the vehicle plate, CARMEN® also returns plenty of additional information, such as an image with the recognized plate(s), the confidence level assigned to each character as well as the whole plate, the identified country or state code, along with plate colors and position. With all this information in hand, cars can be quickly allowed or denied entry to restricted parking areas based on a predetermined list. Law enforcement can also run the recognized plate against various national or international databases within seconds.

2. Plate recognition

The main software aspect of an ANPR/LPR system is reading the plate text from the captured images.

This automated recognition is made of several steps, including image normalization and enhancement, detection of the vehicle plate and distinguishing of plate characters. The final step is taken by the OCR algorithm



ARH ANPR/LPR CAMERAS

There are several possible difficulties that an ANPR/LPR system must be able to cope with. While most of the problems can be resolved by using advanced ANPR/LPR software, it is the primary task of the camera to solve some common challenges related to image capturing. Typical factors that pose difficulty for cameras in vehicle plate capturing are:

- high speed of vehicles may result in motion blur
- varying ambient light conditions (total darkness, direct sunlight or shadows)
- overexposure (due to sunlight or headlight glare)

ARH has always been a pioneer in designing advanced camera solutions that are specially developed for ANPR/LPR applications that significantly reduce these difficulties.

Easy installation, auto setup

The latest ARH cameras include auto setup functions making the proper adjustment very easy, even for users with no technical background. The built-in setup software is accessible via web browsers, through which adjustments can be made remotely at any time.

Day & night operation 24/7

High performance infrared (IR) LED illumination ensures capturing high quality images day and night. High MTBF LEDs deliver an exceptionally long service period before any maintenance is required.

All weather conditions

The cameras are up to IP67 rated, feature vandalism proof housing, and are manufactured using industrial components to ensure that the cameras hold up even in extreme weather conditions.

IP connectivity, built-in processing unit

ARH offers a wide range of IP camera models for all types of ANPR/LPR applications. Some camera models have a built-in processing unit running the ANPR/LPR inside the camera. The recognized information can be easily transmitted over an Ethernet network.

Still images or MJPEG stream

The latest ARH cameras not only provide still images but also an MJPEG video stream to ensure easy integration with any DVR system.

Low power requirement

Low energy consumption helps to reduce system operating costs and protect the environment.



FreewayCAM

IP, ALL PURPOSE ANPR/LPR CAMERA
DESIGNED FOR VEHICLE PLATE RECOGNITION

ANPR/LPR CAMERA DEVELOPED FOR HIGH SPEED TRAFFIC APPLICATIONS

FreewayCAM is a family of modular IP cameras that are specifically designed for ANPR/LPR (vehicle plate recognition) in high speed traffic. FreewayCAM consistently captures high quality images in various environments; in glare from sunlight and reflections or in nighttime darkness; in temperatures ranging from freezing cold to direct sun in desert heat; in precipitation from rain, fog or snow and from measuring distances of 3 to 20 meters (9 to 60 feet). The unique optical module with auto-adjustable shutter time and real-time motion detection-based self-triggering ensures appropriate image capturing at virtually any speed – even up to 255 km/h (158 mph). Thanks to the solid-state internal components of FreewayCAMs, they flawlessly operate even in the most hostile environments. Due to cameras' modular design and various auxiliary components, they can perform a wide variety of specialized functions in complex ITS data point applications.

MAIN BENEFITS

- Capturing high quality images day or night, even vehicles at high speeds
- Increased recognition accuracy rates
- Saving time by simplifying setup and providing unlimited remote access to control settings
- Decreasing network loads with adjustable image compression
- Easy installation, plug & play, auto-setup wizard for easy configuration

KEY FEATURES

- Built-in motion detection, accelerating hardware
- Auto day & night switch; adaptive settings to environmental conditions
- Automatic time synchronization (NTP)
 - Adjustable image compression for maximum ANPR/LPR performance
 - Still images (JPEG) and compressed live video streams (MJPEG)
- Powerful IR illumination with low power consumption



ONVIF



TOLLING
SYSTEMS



JOURNEY TIME
MEASUREMENT



CONGESTION
CHARGING



ACCESS
CONTROL



AIRPORT AND
HARBOR
LOGISTICS



TRAFFIC
SECURITY
MONITORING



BUS LANE
AND RED LIGHT
ENFORCEMENT



BORDER
CONTROL

SmartCAM

INTELLIGENT ALL-IN-ONE CAMERA WITH BUILT-IN ANPR/LPR SOFTWARE & SDK

ALL-IN-ONE CAMERA WITH INTEGRATED ANPR/LPR FOR ANY TRAFFIC SYSTEM

SmartCAM is an all-in-one IP camera, illuminator and integrated computer. The built-in computer within the camera makes this a standalone product. The camera itself is able to perform vehicle plate, container code, or USDOT code recognition and other applications or database checks.

The device contains a built-in industrial PC with Windows or Linux operating system. In addition, the unit also has an embedded server that allows access via web browsers. With their integrated (Windows or Linux) computer, SmartCAMs can perform image acquisitions with digital signal processor (DSP), image compressions – with field-programmable gate array processor (FPGA) – and real-time image correction or enhancement tasks.

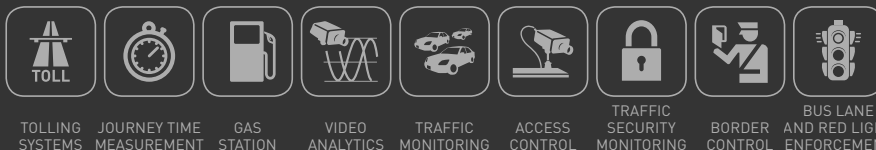
The solid-state internal components of SmartCAMs permit the devices to operate even in the most hostile environments. The cameras' modular design and various auxiliary components open the possibilities for autonomous operation and various specialized functions.

MAIN BENEFITS

- Simplifies applications, no need for complex external operating systems, appropriate even for low infrastructure systems
- Captures images of every vehicle, even at high speeds
- Frees personnel by automating a wide range of traffic monitoring functions
- Saves time; with large storage, only periodic downloading is necessary
- Constantly operates around the clock, switching automatically between day and night modes
- Simple installation that requires only power supply and standard IP connection

KEY FEATURES

- Combination of an ANPR/LPR camera, IR illumination, 3G modem, GPS, processor, communication in one unit and optional Doppler speed radar
- Proven ANPR/LPR results with included CARMEN® FreeFlow engine
- Accelerated image capturing with automatic time synchronization (NTP)
- Auto adaptation modifies camera settings as environmental conditions change
- Embedded web server, accessible via web browsers
- Traffic counting capabilities
- Traffic analysis with business intelligence option
- Industrial-grade vandalism proof housing that also withstands all weather conditions, with IP67 rating
- Ability to upload custom camera applications



SpeedCAM

SPEED ENFORCEMENT CAMERA WITH BUILT-IN ANPR/LPR SOFTWARE & SDK

SMART SOLUTION WITH INTEGRATED ANPR/LPR FOR SPEED ENFORCEMENT

SpeedCAM combines intelligent vehicle plate recognition and speed measuring radar to form a smart traffic sensor in a robust, single-sealed waterproof housing. The built-in smart camera provides all-in-one solution for intelligent traffic monitoring and plate recognition. SpeedCAM performs high quality image capturing (with the help of integrated illumination), vehicle plate recognition, automatic self-management and also allows remote access. All processing is done inside the unit: images, plate texts, time, vehicle moving direction and speeds are database-stored in SpeedCAM's memory for easy access through web servers.



MAIN BENEFITS

- Capturing high quality images of every vehicle
- Detecting and capturing speeders, even at high speeds of up to 250 km/h (155 mph)
- Reducing the need for time-consuming manual data entry through automated vehicle monitoring applications
- The new FPGA (field-programmable gate array processor) and the H.264 compression can provide up to ten times smaller video stream, needing less network traffic and storage space
- Simple installation that requires only power supply and standard IP connection

KEY FEATURES

- Combination of an ANPR/LPR camera, IR illumination, 3G modem, GPS, processor, communication in one unit and Doppler speed radar
- Continuous and accurate speed detection and image capturing in real time, up to 30 frames per second
 - Highly accurate results with the CARMEN® FreeFlow engine installed
 - Auto-adjusting for different weather conditions
 - Optional business intelligence providing traffic analysis
 - Embedded web server, accessible via web browsers
 - Auto switch between day and night modes for 24/7 operation
- Industrial-grade vandalism proof housing that also withstands all weather conditions, with IP67 rating



SPEED
ENFORCEMENT



TOLLING
SYSTEMS



JOURNEY TIME
MEASUREMENT



VIDEO
ANALYTICS



TRAFFIC
MONITORING



TRAFFIC
SECURITY
MONITORING



BUS LANE
AND RED LIGHT
ENFORCEMENT

Portable SpeedCAM

PORTABLE SPEED ENFORCEMENT CAMERA WITH BUILT-IN ANPR/LPR SOFTWARE & SDK

SMART SOLUTION WITH INTEGRATED ANPR/LPR FOR PORTABLE SPEED ENFORCEMENT

Portable SpeedCAM combines intelligent vehicle plate recognition with speed measurement radar to form a smart traffic sensor in a single sealed, robust, and waterproof camera. The built-in smart camera provides an all-in-one solution for intelligent traffic monitoring and vehicle plate recognition. It includes high quality image capturing, built-in integrated illumination, processing unit for vehicle plate recognition, automatic self-control and remote access. All processing is done inside the unit: images, plate texts, time and vehicle speeds are stored in a database within the Portable SpeedCAM's memory with easy access through a web-server.

MAIN BENEFITS

- Appropriate even for low infrastructure systems; no need for lane controller PC for ANPR/LPR or even communication (if 3G option is in use)
- Traffic counting, traffic analysis
- Simple installation; operates up to 16 hours on single charge
- Offering higher OCR accuracy

KEY FEATURES

- Built-in doppler radar and ANPR/LPR processing unit
- Continuous speed measurement and image capturing, max 30 FPS
- Vehicle classification and traffic counting capabilities
- World leading CARMEN® ANPR/LPR engine included (country-independent)



SPEED
ENFORCEMENT



TOLLING
SYSTEMS



JOURNEY
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TRAFFIC
MONITORING



TRAFFIC
SECURITY
MONITORING



BUS LANE
AND RED LIGHT
ENFORCEMENT

M202/402

DAY AND NIGHT MOBILE CAMERA
FOR TRAFFIC, PARKING AND LAW ENFORCEMENT

EFFICIENT MOBILE ANPR SURVEILLANCE

The newly developed ARH CAM-M mobile camera series offers fast and reliable mobile ANPR/LPR performance with its low profile and small size that is ideal for discreet rooftop installation. Mounted on a patrol vehicle, the cameras are perfect for day and night all-weather operations. The devices' durable housing may be manually adjusted for solid performance in roaming parking and toll enforcement, or ANPR-based crime fighting from a stationary position or traveling at regular traffic speed.

MAIN BENEFITS

- Patrol car- (optional lightbar-), roadside-, barrier- and gate-mounting
- Quick and easy installation with single cable (POE+) connection
- Manual pan/tilt and external mounting on any vehicle
- Sideway image capturing of parking vehicle plates at regular traffic speed
- Free-flow traffic image capturing
- Adjustable image compression
- Optimized for MobilSpot®

KEY FEATURES

- Intelligent IP camera with ANPR preselection (M202) and embedded ANPR (M402)
- IR illumination and automatic brightness control optimized for ANPR/LPR
- IP 67 rated weather-proof housing
- ONVIF certified video; JPEG still image / MJPEG output

ONVIF

TOLL
COLLECTIONPARKING
SYSTEMSTRAFFIC
MONITORINGLAW
ENFORCEMENTTRAFFIC
SECURITYVIDEO
ANALYTICS

ARH S1

READY-TO-USE ROADSIDE ENFORCEMENT CAMERA WITH ONBOARD ANPR/LPR AND COMMUNICATION

MORE THAN A STREET SMART SPEED CAMERA

A speed camera measures speed – in addition to that, ARH's S1 reads license plates, stores and transmits video and full-color still images of passing vehicles, recognizes traffic violation events, monitors several lanes at the same time and does all this on its own. Autonomous operation is possible from a patrol car or on a tripod, thanks to S1's battery and data storage and transmission technology.

S1 has a wide range of day and night vision, which is guaranteed by dual wavelength infrared illuminators, a dual camera and ARH's very own state-of-the-art CARMEN® number plate recognition engine. S1 is fast, reliable and detects vehicles from a distance equivalent to the length of 6 football fields. S1 can be safely transported in its rugged outdoor carrying case. Ready for service – wherever you need it.

MAIN BENEFITS

- Highly reliable real-time identification of each passing vehicle
- Data package of each passing event available online or offline, including full-color vehicle image and license plate
- Works on a tripod or from inside vehicle
- Laser allows pinpoint targeting: to effectively distinguish the speed and direction of vehicle in multi-lane traffic
- Laser beam trigger unseen by radar detectors
- Registers traffic violation events like speeding, illegal lane use or jumping a red light
- Fast and easy deployment: installed on location under 3 mins
- Anti-fraud / anti-corruption / no tamper design

KEY FEATURES

- Integrated ANPR/LPR engine
- 30x optical zoom camera with IR illumination
- Certified laser speed detection
- Built-in motion detection
- Communication, GPS, data processing inside the unit
- JPEG image/MJPEG and H.264 stream output, internal image buffer



TOLL
COLLECTION



BUS LANE
AND RED LIGHT
ENFORCEMENT



TRAFFIC
MONITORING



LAW
ENFORCEMENT



TRAFFIC
SECURITY



VIDEO
ANALYTICS

ParkIT Camera

IP CAMERA FOR ACCESS CONTROL DESIGNED FOR VEHICLE PLATE RECOGNITION

CAMERA FOR AUTOMATED ANPR-BASED ACCESS MANAGEMENT



ParkIT is a digital purpose made ANPR/LPR camera, optimized for slow speed or parking applications.

As a compact camera, the ParkIT is comprised of a resistant, single sealed waterproof enclosure with a single sealed IP65 (ingress protection) rated waterproof enclosure. The camera includes a synchronized infra red (IR) LED illumination unit providing clear and sharp images during day and night. Its technical features include pan, tilt, wall mounted brackets with hidden cabling, auto day & night switching, barrier control functions (trigger in/out), and much more.

Access control (entry & exit) to restricted car park or vehicle storage areas, maximum stay car park management, pay-on-exit (POE) car park management, pay-on-foot (POF) car park management and security control or monitoring application areas can all benefit from the progressive capabilities of the ParkIT camera.

MAIN BENEFITS

- Capturing clearer day and night images to raise the accuracy rate of vehicle plate recognition
- Automating exits/entries in parking applications with barrier control capabilities (trigger in/out)
- Speeding up entry and exit times at parking areas
- Accelerating the image capturing with built-in motion detection
- Offering a simplified and user-friendly system for parking customers
- Facilitating easy integration with auto set-up wizard and simple configuration

KEY FEATURES

- Accessibility via web browsers, with embedded web server
- Automated adaptive settings, tracking environmental changes
- Auto day & night switch
- Optional megapixel resolution and color image capturing
- JPEG and MJPEG stream output, for live and buffered images
- Multiple simultaneous image display
- Remote control and setup of camera settings

ONVIF



PARKING
REVENUE
SYSTEMS



ACCESS
CONTROL



AIRPORT AND
HARBOR
LOGISTICS



TRAFFIC
SECURITY
MONITORING



BUS LANE
AND RED LIGHT
ENFORCEMENT



BORDER
CONTROL



COMMERCIAL
VEHICLE
APPLICATIONS

FreewayCAM^{RT} ANPR/LPR CAMERA AND RADAR COMBO DEVELOPED FOR TRAFFIC SOLUTION

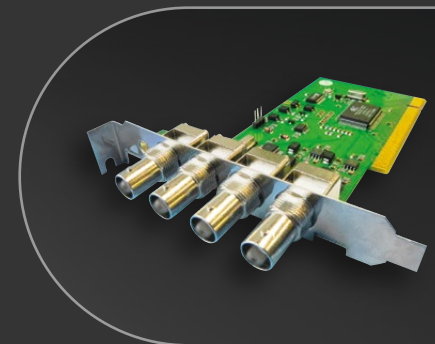
The radar-equipped FreewayCAM^{RT}, as a hardware-triggered IP camera, is ideal for zone-targeted traffic surveillance and automatic number plate recognition (ANPR). It is uniquely designed and built for motion-activated identification and superbly functions under various environmental conditions where other cameras fail to provide similarly positive results.

The attached Doppler radar, which can be configured through the camera's IP connection, is able to measure not just the target vehicle's speed but also its moving direction, dimensions, and works specifically as a trigger toward the camera and its built-in processing unit (PU).



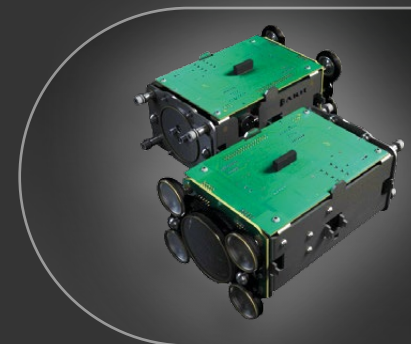
FXVD4 VIDEO CAPTURE CARDS

A 4-channel video capture card specifically developed for the CARMEN[®] systems. Apart from its primary function of digitising video signals, the chip communicates with the NNC (Neural Network Controller). This co-processor functions as integrated hardware protection for CARMEN[®] software. A watchdog function is another key feature of FXVD4. With its help the card can reboot computers in case of system crashes, which considerably improves the stability and reliability of stand-alone systems. The card is developed to handle both PAL and NTSC analog composite video signals, received through any of the four BNC input connectors. The switching times among the input channels of the card are 30 milliseconds, thus enabling the user to build high-speed sequential systems handling the signals of four video channels simultaneously.



OEM CAMERAS CUSTOMIZED SOLUTIONS

ARH is well known for its high quality OEM services, which go beyond simple relabeling. ARH is dedicated to meet all customer needs and ready to design modified product versions, as ARH has always done it in the past. Some examples for customisation include color or B&W sensors, IR or white light, wide range of LED selection (15-60 degrees), shield color modification for special environments or where the camera needs to be camouflaged. Our company has many years of experience and in-house knowledge, which delivers you the benefits from our highly innovative, cutting-edge technologies, product compliance with standards, best-in-class quality, high-level cost efficiency and long-term support. ARH can turn ideas into final products within a short time.



COMPARISON CHART

MODELL	ParkIT Camera		FreewayCAM				SmartCAM				
	WVGA	1.3C	WVGA	HD, HD760	HD W	FHD Dual, FHD Dual 760	HD	HD Dual	HD Dual Plus, HD Dual 760 Plus	FHD Dual	FHD Dual Plus
Generation	second		second			third	third				
Resolution (primary+secondary)	WVGA	1.3M	WVGA	HD		3M + 1.3M	HD	HD + FHD		3M + 1.3M	
Day / Night mode	BW / BW	Color / BW	BW / BW	Color / BW	Color / Color	Color / BW + BW	Color / BW	Color / BW + Color / BW		Color / BW + BW	
Typically frame rate	60	45	60	30		30	30				
Optical zoom (primary camera)	11x		11x			3.3x	11x			3.3x	
Image Buffer/Event Storage (approx.)	1 K / -	500 / -	1 K / -			500 / -	1 K / 60 K	1 K / 40 K	1 K / 40 K	500 / 50 K	500 / 30 K
Optimal ANPR range at ambient light	4 m – 20 m		4 m – 20 m			10 m – 25 m	4 m – 20 m			10 m – 25 m	
Optimal ANPR range at "0" LUX	4 m – 12 m		4 m – 20 m			10 m – 20 m	4 m – 20 m			10 m – 20 m	
Built in Vehicle Detection	-		-			YES	YES				
Built in RADAR / LASER	-		optional			optional	optional				
Built in ANPR	-		-			-	ANPR	ANPR+	ANPR	ANPR	ANPR+
Operating temperature range	-40 °C – 55 °C (-40 °F – 130 °F)	-40 °C – 40 °C (-40 °F – 104 °F)	-45 °C – 70 °C* (-49 °F – 158 °F)*			-40 °C – 70 °C* (-40 °F – 158 °F)*	-40 °C – 70 °C* (-40 °F – 158 °F)*				
IP Rating	IP 65		IP 67			IP 67	IP 67				
Weight (without bracket)	1.2 kg (2.7 lbs)		4.5 kg (9.9 lbs)			4.6 kg (10.1 lbs)	4.6 kg (10.1 lbs)				
Remote control	YES		YES			YES	YES				
Built in Brightness Control	YES		YES			YES	YES				
In the box	Camera, console, data cable, power cable, user cable, install guide		Camera, console, data cable, power cable, user cable, install guide			Camera, console, data cable, power cable, install guide	Camera, console, data cable, power cable, install guide				
Optional accesories	-		External RAD-AR Trigger, Illuminator 2			IO cables, external RAD-AR Trigger, Illuminator 3	IO cables, external RAD-AR Trigger, Illuminator 3				

RECOGNITION CAMERAS & SENSORS

MODELL	SpeedCAM		ContainerCAM	MicroCAM M202		MicroCAM M402		ARH S1
	HD Dual Plus	FHD Dual Plus	HD Dual	HD Wide	HD	HD Wide, HD760 Wide	HD, HD760	S1
Generation	third		third	third		third		first
Resolution (primary+secondary)	HD + FHD	3M + 1.3M	1.3M + FHD	HD		HD		HD + 3M
Day / Night mode	Color / BW + Color / BW	Color / BW + BW	Color / BW + Color / BW	Color / BW		Color / BW		Color / BW + Color / BW
Typically frame rate	30		54	30		30		30
Optical zoom (primary camera)	11x	3.3x	3x	-		-		30x
Image Buffer/Event Storage (approx.)	1 K / 50 K	500 / 30 K	500 / -	800 / -	800 / 60 K	800 / -	800 / 60 K	no / 15 K
Optimal ANPR range at ambient light	4 m – 20 m	10 m – 25 m	2 m – 8 m	2 m – 5 m	10 m – 16 m	2 m – 5 m	10 m – 16 m	20 m – 150 m
Optimal ANPR range at "0" LUX	4 m – 20 m	10 m – 20 m	2 m – 4 m	2 m – 5 m	10 m – 16 m	2 m – 5 m	10 m – 16 m	20 m – 100 m
Built in Vehicle Detection	-		-	YES		-		-
Built in RADAR / LASER	RADAR		-	-		-		LASER
Built in ANPR	ANPR+		-	-	ANPR		-	ANPR+
Operating temperature range	-40 °C – 70 °C* (-40 °F – 158 °F)*		-40 °C – 70 °C* (-40 °F – 158 °F)*	-30 °C – 70 °C* (-22 °F – 158 °F)*		-30 °C – 70 °C* (-22 °F – 158 °F)*		-20 °C – 50 °C (-4 °F – 122 °F)
IP Rating	IP 67		IP 67	IP 67		IP 67		IP 54
Weight (without bracket)	6.4 kg (14.1 lbs)		4.5 kg (9.9 lbs)	1.6 kg (3.5 lbs)		1.6 kg (3.5 lbs)		10.2 kg (22.5 lbs)
Remote control	YES		YES	YES		YES		YES
Built in Brightness Control	YES		YES	YES		YES		YES
In the box	Camera, console, data cable, power cable, install guide		Camera, console, data cable, power cable, install guide	Camera, console + 5 m cable		Camera, console + 5 m cable		Camera, carrying case, GPS with USB cable, touchscreen stylus, external battery cable, cigarette lighter adapter, ethernet cable, special mounting screw, user guide
Optional accesories	IO cables, Illuminator 3		IO cable, external RAD-AR Trigger, Illuminator 3	Tripod mounting console, 5/10 m spare data cable		Tripod mounting console, 5/10 m spare data cable		Tripod, battery charger, external battery, seat adapter, soft case

*internal temperature / ambient 55 °C (130 °F)

ABOUT ARH

COMMITTED TO INNOVATION QUALITY AND CUSTOMER SERVICE

ARH INC.

As an essentially innovation-driven company, the success of ARH lies in its strong focus on continuous research and development to create new technologies and in its ability to apply these achievements to meet continuously changing customer demands.

When you collaborate with ARH, your project is backed by two decades of expertise and hands-on experience in optical character recognition (OCR) and imaging technologies. The know-how of ARH is manifested in two main product lines:

- Automatic number plate / license plate recognition (ANPR/LPR) software and purpose-built cameras optimized for such applications
- Identity document readers and biometrics: advanced ID document scanners and fingerprint live scanner

The name ARH stands for Adaptive Recognition Hungary that reflects to the state-of-the-art OCR know-how of the company and its Hungarian origin.

ARH'S FACTS & FIGURES

- Established in 1991 as a privately held corporation
- HQ: Budapest, Hungary (EU), Innovation Center: Perbal, Hungary (EU), USA office: Clearwater, FL
- Number of ANPR/LPR installations: over 50,000 worldwide
- Number of ID document scanner installations: over 30,000 worldwide
- In total, more than 2500 system integrators companies deployed ARH technology
- Five times awarded the "Technology Fast 50 Central Europe" prize by Deloitte

ARH VALUES

- Dedication to customers' success, understanding customer needs
- Innovation that matters – continuous in-house development
- Trust and personal responsibility – excellent pre- and after sales service



Headquarters, Europe

CERTIFICATIONS

ARH is committed to provide uncompromising quality in all of its products at all times. ARH is certified by three ISO standards, ensuring that the company's operation conforms to the highest international standards.

ISO 9001:2008



Quality management system

that embraces the entire operation workflow: manufacturing, sales, marketing and customer support.

ISO 14001:2004



Environmental management system

that helps ARH to minimize the negative environmental effect of its operations. ARH is committed to be a green company.

ISO 27001:2005



Information security management system

that ensures the protection of confidentiality, integrity and availability of sensitive data at ARH.



Innovation Center, Europe

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