FREEWAYCAM

DIGITAL(IP) ANPR/LPR CAMERA
DESIGNED FOR NUMBER PLATE RECOGNITION

ARH 001

• NUMBER PLATE: ARH 001

ANPR / LPR CAMERA DESIGNED FOR HIGH-SPEED TRAFFIC APPLICATIONS

FreewayCAM is ARH's workhorse camera, purpose-built for ANPR. The camera has been designed to capture images of vehicles – even if they travel at high speed (up to 255 km/h or 158.5 mph) – with the purpose of recognizing the vehicle's license plate. FreewayCAM is optimized for the CARMEN® ANPR engine, the World's No. 1 plate recognition engine, developed by ARH. The available dual lens dual sensor design of FreewayCAM serves as part of an Advanced Vision technology, which, together with an image-based Vehicle Detection (VehDet) and the camera's built in parity flashing smart illumination, mean unparalleled plate recognition rates and exceptionally fast operation for any ANPR solution. The camera is encased in an IK10 & IP 67 vandal proof housing. Optional plug and play components such as FreewayCAM RAD-AR and illuminator are available to build your own system. We believe in what we create, that's why FreewayCAM is covered by an extended 3-year warranty.

TOLL TOLL COLLECTION	**C** CONGESTION CHARGING	ACCESS CONTROL
TRAFFIC MONITORING	BORDER CONTROL	**P** PARKING SYSTEMS

MAIN BENEFITS

- Unparalleled image capturing performance for LPR
- Glare-free / shadow-free image with the Advance Vision second camera module
- No lost events – thanks to the camera's integrated, image-based Vehicle Detection (VehDet) technology
- Auto-setup function
- IK-10 & IP 67

TOWARD THE FUTURE IN SAFETY – SINCE 1991

SPECIFICATIONS

• Optimized for Carmen® • Image-based VehDet algorithm • Advanced Vision • Glare-free and Shadow-free ANPR images • Auto brightness control • HTTPs remote web access • 8 parallel output streams with variable compression, FPS and resolution • NTP for precise time stamps • ONVIF compliant

Production Code	FREEWAYCAM HDx	FREEWAYCAM FHD DUAL
	FreewayCAM-03-6350 (IR850) FreewayCAM-03-6354 (white)	FreewayCAM-03-4362 (IR850)

DISTANCE RANGE

Optimal ANPR range at ambient light	4 m – 20 m (13 feet – 65 feet)	10 m – 20 m (33 feet – 65 feet)
Maximum ANPR range at optimal conditions	50 m (164 feet)	

IMAGING

Resolution (H × V pixels): framerate	Main sensor: 1440 × 1080: 30FPS 1280 × 720: 60FPS	Main sensor: 2048 × 1536: 20FPS 1920 × 1080: 30FPS Second sensor: 1280 × 960: 54FPS
Function of the second sensor	–	Advanced Vision
Day mode / night mode	Light sensor configurable auto-switching day/night mode, automatic brightness control	
High Dynamic Range mode (HDR)	–	
Lens	11× variable zoom, motorized, programmable presets	Camera 1: 3.3× variable zoom, motorized, programmable presets Camera 2: fixed 16 mm

ILLUMINATION

Wavelength	760 nm** or 850 nm (infrared) or white	850 nm (infrared)
Illumination modes	Synchronized flash or continuous	

PROCESSING & I/O

CPU for ANPR	–
Communication protocols	ARP, ICMP, TCP/IP, DHCP, NTP, FTP, HTTP, SMTP, RTP
4G / GPS	–

ELECTRICAL DATA

Power requirement	24-28 V AC
Power consumption typical	11 W
Connectivity	Binder M12 circular: Ethernet (8–pin), Power (4–pin), User (8–pin), User (12–pin)

ON-BOARD INTELLIGENCE

CARMEN® ANPR	–
Video Analytics (Vehicle Detection, Motion Detection, Private Zones)	Included
Trigger sources	GPIO / UART / Software trigger (controlled via HTTP or HTTPs request)

MECHANICAL DATA

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Operating temperature*	-45 °C – 70 °C (-49 °F – 158 °F)*
IP & IK rating	IP67 & IK10
Dimensions (without bracket) length × width × height	390 mm × 167 mm × 155 mm (15.4" × 6.6" × 6.1")
Weight (without bracket)	4.6 kg / 10.1 lbs
In the box	Camera with data cable, power cable, bracket, shield (equipped).

RADAR (OPTIONAL)

Measurement Principle	Doppler-Radar
Measurement Frequency	24.165 GHz

OPTIONAL ACCESSORIES

I/O cables, FreewayCAM RAD-AR Trigger, FreewayCAM IR-LIGHT 3, Junction box

** available as an OEM product, *internal temperature / ambient temperature: max. 50 °C / 55 °C (122 °F / 131 °F)
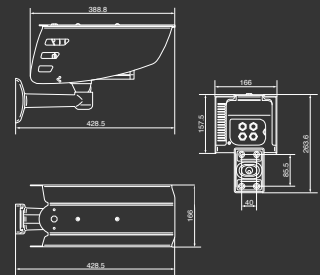
Technical specifications are subject to change without prior notice. This document does not constitute an offer.