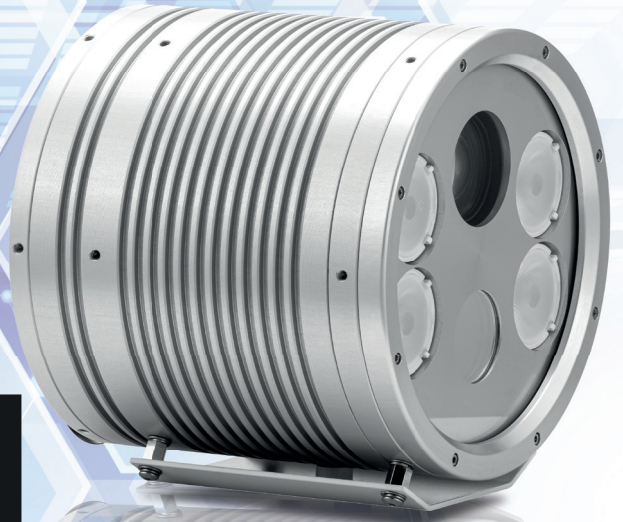# Rapier 50HDZ

Zoomed Based HD ANPR Camera and Overview Camera with Pulsed IR LED Illumination

The Rapier 50HDZ incorporates 1.3MP HD Zoom ANPR with 1.3MP Colour Overview, GigE camera modules with our innovative InfraRed (IR) pulsed LED designs to provide a formidable ANPR/LPR camera solution for use in fixed site applications with multi-lane coverage and high speed traffic capabilities.

Multi-Lane
High resolution images providing excellent recognition

Zoom
Remotely adjustable varifocal lens

Performance
Best-in-class with fifty HD images per second

Illumination
Pulsed illumination with control capabilities over network

Economical
Low power consumption but high light output

Rugged
High grade metal enclosure with simple installation options

Sealed
Hermetically sealed to IP68 for demanding physical environments

Control
Full control and feedback of cameras and IR settings

Slave Illumination
Optional units for improved overview images at night

HD IP
GigE Ethernet connectivity for fully digital raw images

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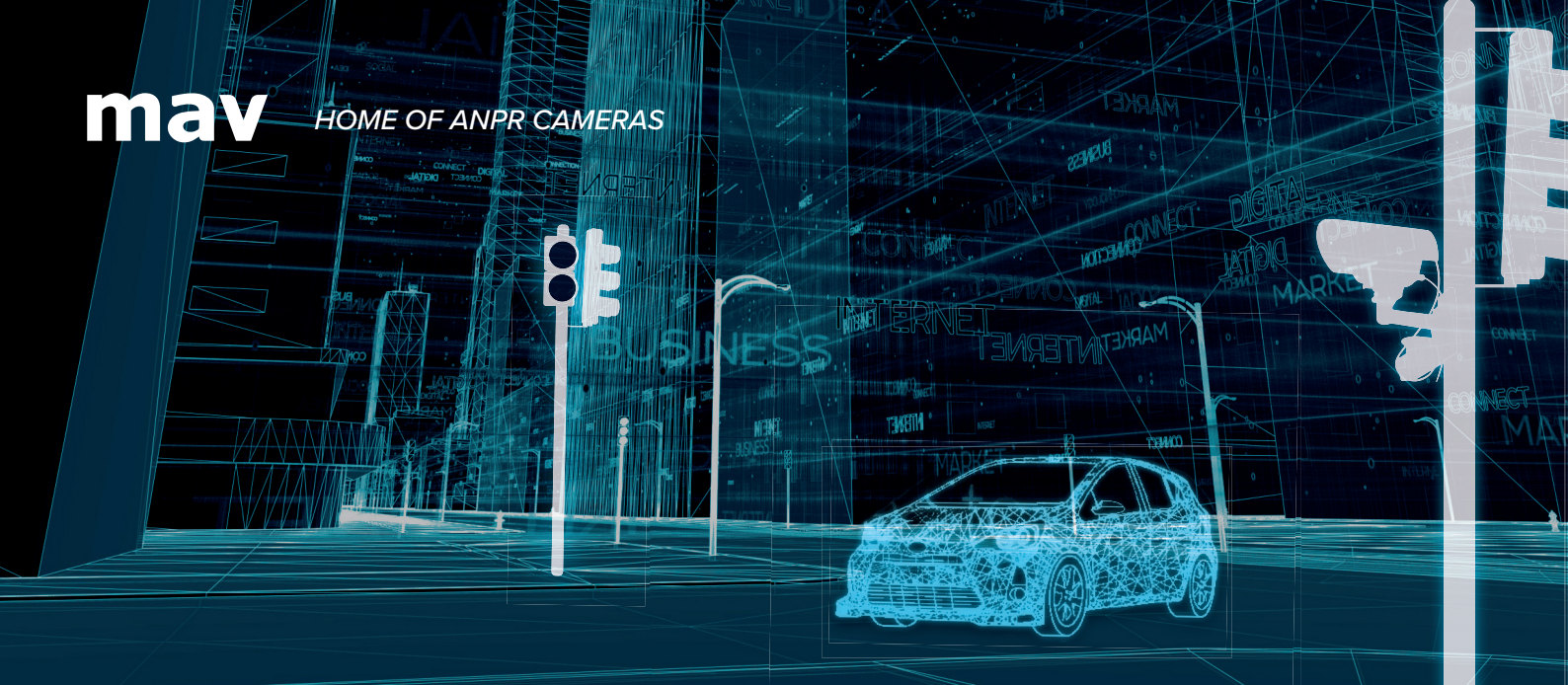
Winning HD ANPR Performance

The Rapier 50HDZ has the flexibility of a 10-40mm motorised lens that can be remotely controlled for zoom, iris and focus. It can provide up to 50 digital images per second at 1280 x 1024 pixel resolution without any compression of the video data or effects of analog cabling. This means around 8 times more accurate information and therefore improved recognition over a far wider field of view than SD cameras.

Rapier 50HDZ is available as a mono ANPR only camera or dual with HD Overview module for evidential image capture.

Rapier 50HDZ has been designed to work in conjunction with our optional Rapier 50LX illumination unit that can be added to provide improved night time overview images.

Rapier 50HDZ has been designed for ease of use in fixed applications with standard CCTV installation options for use on gantries, lamp posts and bridges. The camera's housing is fully sealed to IP68 and purged for long life performance. Connectivity is provided via CAT5e cabling to networks and RS232 control for camera and illuminator functions.

MAV Rapier 50HDZ Specification

Rapier 50HDZ High Definition ANPR cameras combines zoom enabled 1.3MP ANPR and 1.3MP overview camera in a single IP68 enclosure.

Specifications

ANPR Recognition Range and Field of View	Typically 5 to 45 metres determined by 10-40mm lens. Field of view typically 6-8m (2 lanes of traffic with EU style plates) at high speed with very high accuracy
Illumination	High power pulsed LED arrays (White Light, 740nm, 850nm or 940nm) with lens beam pattern options. Wide angle for 10-20mm (5-20m recognition); Narrow angle for 20-40mm (20-45m recognition)
ANPR Image	1/1.8" sensor with 1280(H) x 1024(V) effective picture elements providing raw 1.3 Megapixel images
Image manipulation	Camera based Area of Interest (AoI) facilities and scaling possible via SDK or control application
Frame rate	Up to 50 images per second (ips). Snap mode also allows triggered single or sequential capture
Exposure Time / Equivalent Shutter (based on 50 ips)	Global exposure time 50μs - 20ms / Equivalent shutter speed 1/20,000th to 1/50th second
Motorised Lens	Focal Length: 10mm to 40mm (37.5° to 9.75° HFoV); Focus: 1m to infinity; Iris:F1.8 – F16. No presets.
Illumination period/power	Illumination pulse width, offset and power variable under software control including tracking of exposure
Overview Image	Colour 1/1.8" sensor with 1280(H) x 1024(V) effective picture elements providing raw 1.3 Megapixel images
Connectivity and Cabling	Waterproof RJ45 x 2 and Binder 720/12 power connectors Maximum CAT6 cable length 100m without GigE network relay; CAT5e on shorter connections (4 pairs)
Camera Control Protocols	GigE SDK and AVML for motorised lens, IR and overview via serial over IP connection (single cable)
Operating Voltage	10.5-15VDC protected
Power Consumption	Nominally 30W
Physical (WxHxD)	163 x 163 x 114 mm (cylindrical) - excluding brackets/sunshield
Enclosure	IP68 hermetically sealed hard anodised aluminium in natural aluminium with rugged mount options
Weight	Camera only 2.45 Kg – Camera with Sunshield and bracket 3.00 Kg
Temperature	-20°C to 50°C operating

Options and Accessories

Cable harness sets	The camera is fitted with high-grade locking connectors. Connection from the Rapier to the ANPR equipment is available through CAT5e cabling. The unit is powered by12VDC power and has I/O connectivity for triggering multiple units.
Brackets	A range of metal cradles, brackets and sunshields are available for fixed installations. Modified and bespoke metalwork can be designed and supplied to meet specific demands. Standard ranges include rapid fixing brackets/adaptors to standard CCTV (4" / 102.5mm PCD) and tripod connectors in pole/wall mount configurations with tilting/panning and yaw capabilities for better alignment. The sunshields are available in a variety of construction techniques and sizes.
Pan and Tilt	MAV Systems provide pan and tilt heads, and interface units, to enable remote movement of the camera position. Pan and Tilt units have jog and preset capabilities that can be combined with presets to create integrated fixed platforms. Pan and Tilt interfaces support industry standard protocols, with enhanced features through the MAV AVML protocol.

Service

Customer Service	Friendly, helpful service for product ordering and repair returns
Technical Support	Comprehensive pre and post-sale technical support for full life of the product
Warranty	12 month warranty, extended warranties and factory repair/replacement
Long Term Supply	Complete support for the life of the product
Training	Comprehensive product training programmes for customers

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