



Setting a new benchmark in cost-effective high-performance ANPR, Evo8 is an evolutionary leap in smart ANPR camera technology. Evo8 provides a completely self-contained ANPR solution with a wide range of on-board communication options.

ANPR Capabilities

- Fully integrated solution incorporating camera, image processing and communications in a single unit
- High-resolution infra-red (IR) ANPR camera with ultra-bright IR LED illuminator for 24x7 covert operation
- Internationally proven highly-accurate ANPR software recognises plates from all European countries and many other countries world-wide
- Optional high-resolution overview camera (synchronised to the IR camera) providing detailed context images - colour and covert (IR) options available
- Single lane (3.3m horizontal field of view) and two lane (6.1m HFOV) versions
- Recognition of plates in two lanes simultaneously (two lane version) for both one-way and two-way carriageways
- Automatic vehicle detection without the need for loops or beams. An external vehicle presence input is available where required for tolling and access control applications. A control output is also available to enable the connection of an external pulsed illuminator synchronised to either the ANPR or Overview camera

Data Communications

- Optional GPRS/Edge/3G/HSDPA modem for IP-based wide area network (WAN) host communications
- Push or pull data and image transfer via xml web services (UTMC Compliant), or via FTP (ascii data and jpeg images)
- Data packages can include compressed full-frame colour or IR images and/or regions of interest (plate patches)
- 54 Mbps wireless LAN (Wifi) communications as standard for ease of set-up and configuration, including wireless transmission of live video
- Master/Slave operation requires only one camera in a cluster to be fitted with the optional WAN modem for transmission of data to/from all cameras within Wifi range
- Gigabit Ethernet connection for delivery of live high-resolution digital video (IR or colour) for example when connected to a fibre CCTV network
- “Web cam” function - reduced frame rate compressed video stream available over the optional WAN connection for remote scene observation
- Remote software upgrades (firmware and applications) via GPRS, Edge, 3G or Wifi networks

Additional Features

- Sophisticated diagnostics and per-plate statistics (including speed and trajectory) for performance monitoring and data validation
- Local buffering of data and images for batched deliveries or to preserve data in the event of communications outages
- Optional blacklisting and whitelisting functions with automatic delivery of images of detected blacklisted or non-whitelisted vehicles

Construction

- “Memory” mounting bracket for camera replacement without the need for re-alignment. The camera may be inverted to allow either top or bottom mounting
- No moving parts (disks or fans), fully sealed to IP68 and nitrogen-purged for high reliability
- All connections via robust IP68 connectors suitable for termination in the field. In wireless applications only a single power cable is required

Whether for journey time, enforcement, intelligence, tolling or access control, Evo8 has all the required capabilities. CA Traffic provides a wide range of mounting options and a full installation and maintenance service – and of course seamless integration with the unique Evolution journey time system.

Specifications

Infra-red sensor resolution (single lane version)	800 x 600 pixels (progressive scan)
Infra-red sensor field of view (single lane)	3.3 metres (road width)
Typical range (single lane)	8 to 27 metres (dependent on lens)
Frame rate (single Lane)	44 frames/sec
Infra-red sensor resolution (two lane version)	1280 x 960 pixels (progressive scan)
Infra-red sensor field of view (two lane)	6.1 metres (road width)
Typical range (two lane)	15 to 31 metres (dependent on Lens)
Frame rate (two Lane)	30 frames/sec
Optional colour sensor resolution	1280 x 960 pixels (progressive scan)
Colour sensor field of view (width)	Dependent on lens specified
Lenses focal lengths	C-mount; 8, 12, 16, 25 or 35mm
Standard illumination wavelength	880 nm (other options available)
Maximum vehicle capture speed (single lane)	140 mph (225 kph)
Maximum mounting angle (azimuth/elevation)	35°
Local non-volatile memory	Industrial flash drive – up to 16GB
Optional Cellular Communications	GPRS (Class 12), Edge, 3G (7.2Mb HSDPA)
Wireless LAN	802.11 a/b/g 54 Mbps
Local clock/calendar (battery backed)	Synchronised to host, e.g. via SNTP
Ethernet	IEEE802.3ab 1000BASE-T
Wired serial communications	2-wire RS232, optional RS485
Power supply	48V dc (200m cable length)
Maximum power dissipation	20W
External inputs	2 (volt-free contact closures)
External outputs	2 (relay coil drivers)
Connecting cable (power + two I/O lines)	8-core with overall shield
Optional connecting cable (Ethernet)	Cat6 (4 twisted pair with overall shield)
Optional connecting cable (external in/out, serial)	4 twisted pair with overall shield
Ingress protection rating	IP68
Operating temperature range (ambient)	-20° to +60° C
Weight	3.5kg including sunshield
Dimensions (including sunshield)	H: 185mm W: 224mm D:250mm
Construction (Body)	Cast aluminium
Construction (Sunshield)	Moulded polyethylene

Compliance

- European Standard EN60825: Eye Safety
- European Standard EN50293: Electromagnetic compatibility
- European Standard EN60068: Environmental (temperature, ingress protection, shock & vibration)
- UK Highways Agency TR1100D: General Specification for Motorway Signs, Signalling and Communications Equipment
- UK Highways Agency Highways Agency TR2130C: Environmental Tests for Motorway Communications Equipment and Portable and Permanent Road Traffic Control Equipment