

WISeNET

TRAFFIC MANAGEMENT SOLUTIONS

From roadway to city

WISeNET

Hanwha Techwin Europe
Heriot House, Heriot Road, Chertsey, Surrey, KT16 9DT, United Kingdom
Tel: +44.1932.57.8100 Fax: +44.1932.57.8101
www.hanwha-security.eu

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Intelligent traffic management solutions

Video surveillance specialists Hanwha Techwin and analytics experts FF Group have combined to offer a suite of ANPR solutions ranging from car park access control for business applications, through to large scale city wide based systems, which enable local authorities and police to keep people safe, as well as detect illegally parked vehicles and other traffic infringements.

Wisenet ANPR Camera for single use

The ANPR application developed with the FF Group, which provides a highly accurate licence plate recognition solution effective with all European number plate formats, has been integrated with two high definition Wisenet cameras: SNO-6095RH/FNP and XNO-6120R/FNP. The application uses license plate recognition software to allow the user to monitor traffic (2 lines per one camera) and prevent crime and record its results.

Events recorded include:

- Entry/exit logs
- Alerts
- Black/white list management
- Direction detection



- **Outstanding recognition accuracy**
More than 95% recognition accuracy in any environment or condition.
- **High vehicle speed**
Guaranteed for vehicles at a maximum speed of up to 80kmph on two lanes or at night-time and up to 150 kmph on a single lane during daylight hours.
- **Easy setup**
Simple, clear and user-friendly installation, setup and adjusting.
- **Black and white list support**
User can define up to 2000 number plates in black and white list.

Wisenet Group ANPR Cameras for small site management

Taking advantage of the powerful chipset, the Wisenet Group ANPR Cameras are ideal for small sites with multiple entrances/exits or roadways. Camera-to-camera IP communication technology enables up to 4 cameras (1 master camera and 3 slaves) to work together. The cameras recognise vehicle number plates and simultaneously transmit data to a single web based display.

Sharing many of the features and attributes of the Wisenet ANPR single use solution, Wisenet Group ANPR provides the opportunity to automatically control the movement of white listed cars through barriers via camera relay outputs, as well as provide valuable car park management information, such as 'time spent' and occupancy rates.

The SNO-6095RH/FNP, which has a varifocal lens, is suitable for long range ANPR applications, whilst the compact XNO-6120R/FNP bullet camera is targeted at medium range projects. The feature set of the 2 megapixel cameras makes them the ideal choice for the demanding environments in which they may have to operate. Both have built-in IR illumination to enable vehicle license plates to be read in total darkness. Other key features include Defog and WDR to ensure clear, sharp images can be captured in locations where there may be strong contrasting lighting conditions.

An SD/SDHC/SDXC memory slot ensures images of any activity are automatically recorded in the event of network disruption.

SNO-6095RH/FNP

2M Network IR LPR Camera

Specifications

- Max. 2megapixel (1920 x 1080) resolution
- 0.015Lux@F1.2 (Colour), 0Lux@F1.2 (B/W: IR LED on)
- 8 ~ 50mm (6.3x) varifocal lens
- H.264, MJPEG dual codec, Multiple streaming
- WDR (120dB), Defog
- Audio / Face / Motion detection
- SD/SDHC/SDXC memory slot
- License plate capture: 20m (Max. 80km/h)
- IR viewable length 100m, IP66



STB-400 (needs to be purchased separately)

SNO-6095RH/FNP	
IR LED Viewable Length	1) 20m (Licence plate capture, Max. 80km/h) 2) 100m (Normal use)
Operating Temperature / Humidity	-20°C ~ +50°C / Less than 90% RH

XNO-6120R/FNP

2M Network IR Bullet Camera

Specifications

- Max. 2Megapixel (1920 x 1080) resolution
- 5.2 ~ 62.4mm (Optical 12X) Optical Lens
- Max. 60fps@all resolutions (H.265 / H.264)
- H.265, H.264, MJPEG Codec Supported, Multiple streaming
- Day & Night (ICR), WDR (150dB), Defog
- DIS with built-in Gyro sensor
- Loitering, Directional detection, Fog Detection, Audio detection, Sound Classification, Tampering
- Motion Detection, Handover
- SD / SDHC / SDXC 2 Slot (Max. 512GB)
- Hallway View, WiseStreamII Support
- IR Viewable Length 70m (229.66ft), IP67 / IP66, NEMA 4X, IK10
- LDC Support (Lens Distortion Correction)
- PoE, 24V AC, 12V DC, Bi-directional audio Support



XNO-6120R/FNP	
IR LED Viewable Length	1) 20m (Licence plate capture) 2) Max. 50km/h
Operating Temperature / Humidity	-20°C ~ +50°C / Less than 90% RH

Number Plate Server Solution for larger site management

If you have a large site requiring up to 32 cameras, such as a large shopping centre, municipal or commercial sites, the introduction of a server based management system makes it easier to scale your operation.

Additional features include:

- Online alerting
- Duration of stay
- Analysis of utilisation



Cloud Solution for multiple sites and cameras

Cloud solutions make a valuable contribution to roadway, car park and city surveillance management.

Cloud-based analytics provide operators with accurate real time data captured by Wisenet cameras. Hosted by Microsoft's highly secure and reliable Azure cloud service, it is able to generate easy to understand reports via customised dashboards deployed in three different packages - Number Plate control, Car Park and City Traffic. Advanced reporting features include traffic density, traffic speed and average travel time. In addition, it is possible to request tailor-made dashboards and additional features in order to obtain better business insights.

Number Plate cloud

With the ability to define up to 2000 number plates in a 'black and white' list, the Number Plate Control solution can assist with the identification of banned number plates to reduce the incidents of non-payment in places like petrol stations, car washes and customer collection points.

Reports include a photo of a number plate and automatic transcribed data.

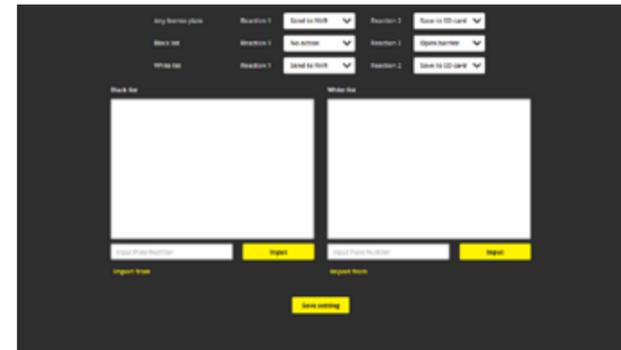
Additional features include:

- Entry/exit timing
- Push notifications and alerts
- Time spent

Live ANPR reporting



Separate black and white list reports



Car Park cloud

The Car Park cloud solution allow security personnel to have strict control over which vehicles have access to a site's sensitive areas, such as loading bays.

Other reports include car park occupancy and the number of free spaces, as well as a vehicle's duration of stay and frequency of visits. It can even synchronise data between a number of different sites.

Clients

Frequent visitors estimation



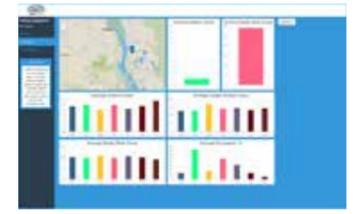
Statistics

Per parking site



Weekly statistics

- Visitors count
- Length of stay
- Vacant slots count
- Occupancy



Event register

- Number plates
- Photos at entry/exit

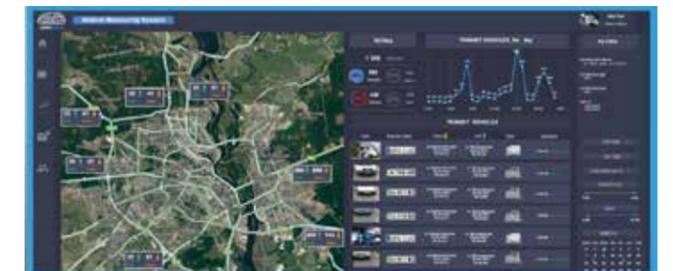


City Traffic cloud

Located at key city centre intersections and main roads, local authorities and police are provided with the licence plate numbers of vehicles involved in traffic lane or parking infringements and have access to real-time traffic flow data, such as the average speed and the number of vehicles on the roads. More in-depth analysis for longer term planning comes from data that is recorded on everyday drivers who travel into specific areas.

Additional features include:

- Traffic density
- Average travel time
- Traffic speed



Integration with Wisenet SSM

Wisenet SSM is a one-stop management software solution which maximises the efficiency of Wisenet network cameras and provides the option to perfectly integrate them with third party systems such as intruder alarms and access control.

Wisenet SSM's modular architecture empowers operators to configure, manage and monitor large numbers of cameras. It is equipped with a powerful search engine and offers a wide range of options.

Wisenet SSM - clear and simple reports for events



	Edge	Server	Cloud		
Feature	Wisenet ANPR camera	Number Plate server	Number Plate Control cloud	Car Park cloud	City Traffic cloud
Entry/exit timing	Yes	Yes	Yes	Yes	
Evidential storage		Yes	Yes	Yes	Yes
Relay control	Yes	Yes			
List management (Black, White, other)	Yes	Single site / spot	Global / multiple sites / spots	Global / multiple sites	Global / multiple spots
Push notification		Yes	Yes	Yes	Yes
List alerts	Yes	Yes	Yes	Yes	Yes
Active monitoring / online alerting		Yes	Yes	Yes	Yes
Time spent		Yes	Yes	Yes	Yes
Analysis - utilisation		Yes		Yes	
Analysis - frequent visitors				Yes	
<ul style="list-style-type: none"> Traffic density reports Average travel time Traffic speed analysis Traffic heat map Local / visitor / country analysis Never in / never out report Bus lane control Parking violations (street) Suspicious vehicle patterns Speeding (average speed) 					Yes
Excel/csv export	Yes	Yes	Yes	Yes	Yes
Integration via HTTP(s) over FF Protocol	Yes	Yes	Yes	Yes	Yes
HTTPS	Yes	Sending data outside LAN / yes	Yes	Yes	Yes
Stored data protection	By means of camera OS	By means of OS	Industrial grade access control	Industrial grade access control	Industrial grade access control

Part Code	Product
XNO-6120R/FNP	Wisenet ANPR camera
SNO-6095RH/FNP	Wisenet ANPR camera
NPS-4	Number Plate server 4 channel
NPS-8	Number Plate server 8 channel
NPS-16	Number Plate server 16 channel
NPS-32	Number Plate server 32 channel
NPC-PC	Number Plate Control cloud
NPC-CP	Car Park cloud
NPC-CT	City Traffic cloud