



# Transport Solutions



## A new level of passenger and staff security

Public transport operators constantly face challenges as they strive to create positive passenger experience through safe and clean stations/vehicles, and as they ensure the systems continue to run safely, efficiently, and on-time during the usual commute or in extreme conditions.

Most often, these challenges arise from “blind spots” with limited or inadequate visibility. For proactive, budget-conscious transport operators and security leaders, visibility is critical to identify what is working, and what is not. To secure a sound level of visibility, they look to the world-class features of **Hanwha Techwin**'s video surveillance solutions: cost-effective, high performance, and efficient infrastructure that provides the necessary visibility for any operations or areas including passengers and even trackside.

To deliver satisfactory user experience, all equipment must be built to last – and so must the company that provides them.

**Hanwha Techwin**, a manufacturer of lifecycle-ready solutions, stands behind a full lifecycle of the equipment, and promises to serve in all future phases.

## Highlights

- Transportation-specific standards acquired.
- EN 50155 and EN 50121-x compliant.
- i-STORE Certificate of Acceptance issued by Network Rail.
- Face Mask Detection solution, to help you comply with COVID-19 related safety measures.
- End-to-end solution of cameras, storage devices, and VMS.
- Object detection and classification with AI cameras for suspicious activity on rail tracks and to alert authorities.

## Onboard Solutions

- Many of our network cameras and video recorders are EN 50155 and EN 50121-x compliant, and with the ability to withstand vibrations and meet EMC requirements, are specially designed for onboard security.
- PoE switches are embedded in our network video recorders make your onboard security system installations simpler, whilst a M12 camera connector will make the system more stable against vibrations.

High visibility of passengers inside the carriage under various lighting conditions

- High performance WDR and multi-megapixel image resolution ensure clear images will be captured inside trains, even when there is intense sunlight or artificial light backlighting.
- High resolution fisheye cameras eliminate blind spots and normally reduce the number of cameras required for each train carriage.

## Face Mask Detection

Wearing a face covering has become compulsory in many public places to help prevent the spread of COVID-19. Our Face Mask Detection Applications uses innovative video analytics to detect if a person entering an area is not wearing a mask. This will trigger the playing of a customisable audio message such as 'please wear a face mask'.



## Social Distancing

Our Social Distance Measuring Application is able to accurately measure the distance between people in a camera's field of view and will generate an alarm if social distancing rules are not being complied with. Compatible with all Wisenet cameras, the application offers a highly effective social distancing implementation tool for public transport environments where crowds need to be monitored and managed.

## Station areas and platforms: monitor passenger safety

The ability to monitor passengers and identify abnormal behaviour is enhanced by capturing the faces of offenders which can be used as evidence in cases of violence, gate jumping and theft at ticketing areas and barriers.

- With up to 150dB outstanding WDR performance and true day/night capabilities, our cameras are able to capture images of suspicious activity in great detail even under the most challenging light conditions.
- High resolution cameras provide stream clear images of station platforms under various light conditions.
- Gain important situational awareness even in low light with fewer cameras by using the 5MP 360° camera.



Monitoring passenger safety at all hours and detecting unauthorised access to restricted areas.

- Camera view for operator to monitor platform area for safety when loading and unloading passengers.
- Call boxes, help points, or sensors trigger live alert for a timely response.
- Embedded video analytics can detect when a person enters a restricted zone within a station and generate an alert to a central control room, as well as trigger a PTZ camera to move to a pre-defined position.
- Virtual Line analytics offer the potential to save lives by detecting people crossing train tracks
- Embedded video analytics can be used for detecting unexpected and dangerous situations such as overcrowding or objects left behind.
- Cameras can be positioned at level crossings to improve safety and catch motorists jumping the red light.
- Intelligent video analytics can help monitor public spaces in a COVID-19 affected world, ensuring safety measures are being followed from social distancing to the requirement to wear a mask.



## Related offerings

- Fisheye cameras
- Multi-directional cameras
- Dome cameras
- IR Bullet cameras
- Thermal cameras
- Video wall decoder for control rooms
- Occupancy monitoring
- Face mask detection
- Fall detection
- Abandoned/removed objects detection
- Pedestrian Detection
- Loitering Detection
- Social distancing measurement solution
- **Coming soon!** Network Audio solution for PA at stations



## Depots: property protection and management

Vandalism and theft of plant, machinery and tools are unfortunately a regular costly occurrence. All assets and areas can be secured with the help of 24/7 remote monitoring, with long-range IR PTZs used to efficiently cover large areas.

- 55x zoom IR outdoor PTZ cameras will help you to clearly identify a suspicious person from 350m away even at night, tracking the person automatically.
- IR correction technology provides clear images even when both IR and visible light are present.
- 5 megapixel IR vandal dome and IR bullet cameras will help provide 24/7 security by capturing superb quality of monitored areas.
- In addition to embedded IR illumination on cameras, a high performing WDR function enables you to observe your depot and yards under the most challenging and changing lighting conditions.
- The cutting edge H.265 codec reduces video bandwidth significantly compared to traditional technology used to minimise bandwidth and storage requirements.