

## Hanwha Techwin Wisenet Cameras Go Mobile on Hull Trains



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### Challenge

The Wisenet video monitoring systems have been installed as part of a phased upgrade of the train fleet with engineering work having been carried out with the assistance of Atkins Rail, one of the UK's leading rail design and engineering consultancies, who were commissioned by Angels Trains, the owners of the Class 180 Adelante fleet operated by Hull Trains.

### Solution

Following on from a successful trial on one of Hull Train's Class 180's and its five carriages, Wisenet 2MP SNV-6012M compact flat cameras and 5MP SNF-8010VM 360 degree cameras will now be installed in up to 70 train carriages. A forward facing SNV-6012M, which utilizes Wisenet's Motion Artifact Reduction technology to ensure there is no motion blur, will be installed at the front of each DMU. Images from the cameras are being recorded onto Wisenet SRM-872 network video recorders. Developed in response to a demand from the transport sector for robust IP network based solutions, the SRM-872 network video recorders enable Hull Trains' safety and security personnel to review latency free, high definition images of fast moving objects when an emergency or incident needs to be investigated. It achieves this by recording the images captured by the cameras at 60 frames per second through a recording

bandwidth of 64Mbps, which ensures image edges are kept sharp and clear.

Built-in GPS allows for location data to be recorded and the SRM-872s are also equipped with hot-swappable 2.5" HDDs that can easily be removed for the purposes of backing-up video evidence.

### Result

Passengers on Hull Trains will now be able to feel even safer following the decision to install video monitoring systems on the train operators' locomotives and carriages.

“Following on from the successful completion of the installation of the cameras and recorders, we will be looking in the near future to conduct trials of iCam 4G technology with a view to be able to transmit live images from each of the SNV-6012M cameras located at the front of the locomotives to our central control room,” said Paul Wood, Fleet Manager at Hull Trains. “The objective will be to allow our operators to take advantage of the high quality images captured by the Hanwha Wisenet cameras, to gain an immediate understanding of what may be occurring and take appropriate action, such as calling on the relevant emergency services.”

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### European Standards

Both the Wisenet SNF-8010VM and SNV-6012M are vandal resistant and are conformant to the EN-50121-3-2, EN-50121-4, EN-50155, EN-61373 and EN-609050-1 European standards. As such, they have been certificated as electromagnetically safe for use on trains and, with a rugged M12 connector, are able to withstand vibrations, making them ideal for use on trains where they can be used internally to monitor passenger activity or externally, to monitor the track ahead to provide video evidence of any incident.

Both models are mobile cameras which offer an enhanced Digital Image Stabilization (DIS) feature which negates the effects of vibration. This can greatly reduce the rolling shutter effects such as image wobbling or skew that can be seen in high quality images. The SNV-6012M also features a Defog feature which improves the clarity of images captured in poor weather conditions, such as rain, smoke or fog.



### Full HD Cameras

“Railway related accidents are extremely rare, but we have worked very closely with Angel Trains, Atkins Rail and Hanwha Techwin Europe, to ensure that the mobile video monitoring systems are able to help us keep our passengers safe and that anyone tempted to get involved with anti-social behaviour will be deterred from doing so,” said Paul Wood, “We will certainly be putting the cameras to good use. The HD SNV-6012Ms installed at the front of the Class 180 units will help us to investigate any signaling irregularities as well as safety of the line incidents such as trespass etc,” and said.

“We have an absolute zero tolerance towards any abuse of our staff. The images captured by the cameras installed in the carriages will allow us to gather evidence that can be used in prosecuting anyone committing any acts of violence or vandalism.”