

WISeNET

# NETWORK VIDEO SOLUTIONS

For unique applications

WISeNET T series



[hanwha-security.com](http://hanwha-security.com)

 Hanwha  
Techwin

## ATEX cameras for hazardous environments

Heavy industrial facilities such as gas pipelines, petrochemical plants or oil refineries are potentially explosive because of flammable gases and dusts emitted. Therefore, it is important that a video surveillance system used in heavy industrial facilities is safe and does not cause an explosion, whilst still delivering high quality images. Wisenet T series ATEX cameras satisfy both requirements thanks to the powerful network camera and stainless steel housing enclosure surrounding it.



### Stainless steel 316L enclosure to prevent explosions

T series ATEX cameras are designed to be safely operated in hazardous areas with a special enclosure made of stainless steel 316L housing. The ATEX certified enclosure has the ability to contain any internal explosions or prevent sparks from escaping the device which may lead to a disaster.



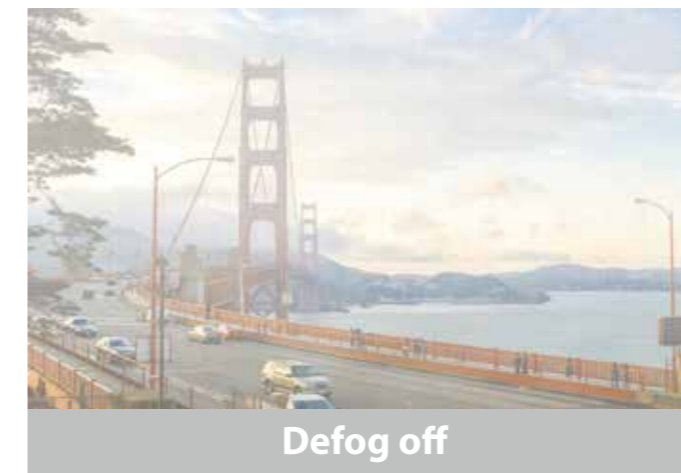
## Capture details with 2MP 32x optical zoom

The powerful 2MP optical zoom 32x (4.44~142.6mm) camera SNZ-6320 is housed within the explosion proof enclosure. The 32x Optical zoom and 16x digital zoom help users see clearly at a greater distance, capturing everything with sharpness and without any image loss.



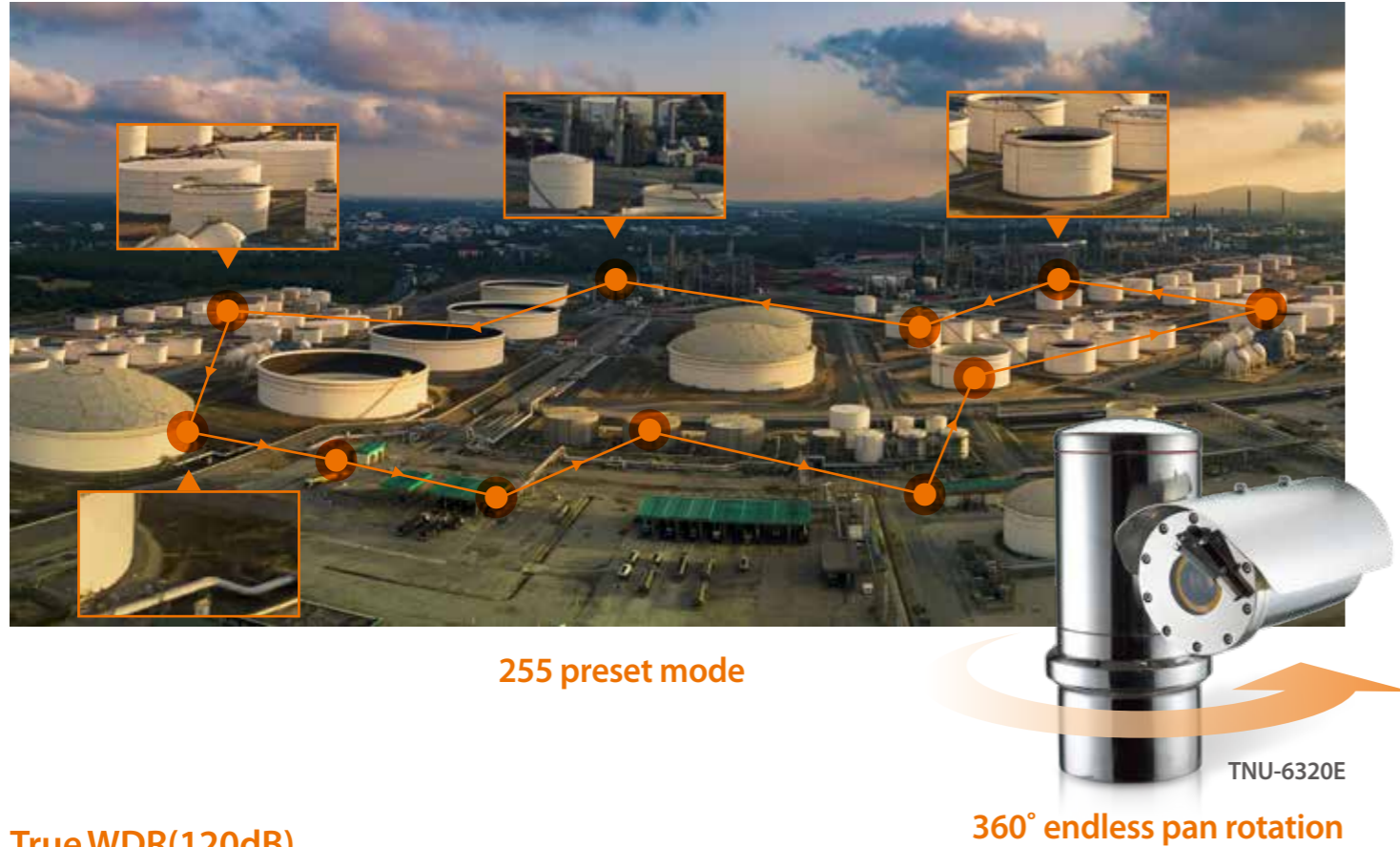
### Defog technology to improve image clarity

The Defog function is an image processing technology which helps improve image clarity in poor weather conditions such as fog or yellow dust. The visibility of the cameras can be enhanced in any weather condition so that users can monitor images around the clock.



### 360° endless pan rotation and 255 preset mode

TNU-6320E is capable of monitoring a broad range, with its 360° endless pan and 180° tilt feature moving a 1~50° /sec preset speed. In addition, the camera's flexibility is increased by 255 preset positions, allowing users to save settings for pan/tilt functions and automatically view the location desired.



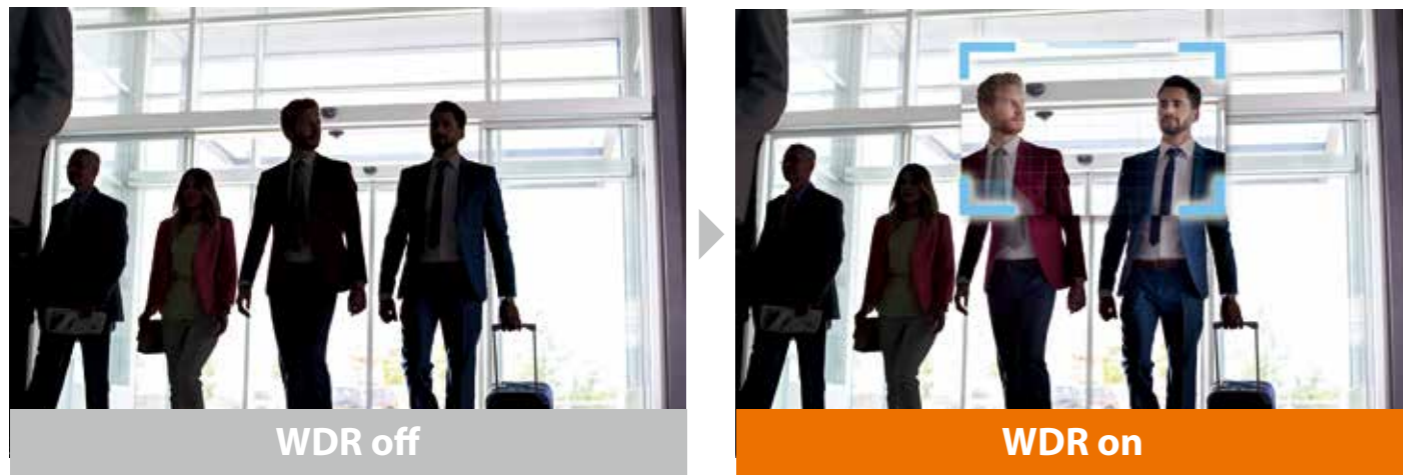
255 preset mode

TNU-6320E

360° endless pan rotation

### True WDR(120dB)

The true WDR function built into the ATEX camera provides enhanced picture quality, by balancing the brightness in a scene.



WDR off

WDR on

### See the unseen with thermal cameras

In challenging weather (fog, smoke, rain) or lighting conditions (complete darkness, backlight), it can be difficult to distinguish people or objects in a complex background by a visible camera or the human eye.

For accurate monitoring purposes, a professional surveillance system is required. Wisenet thermal cameras are the excellent choice : they provide high contrast images based on temperature differences between the object and background, so that users can detect incidents more easily. The advanced thermal imaging technology provides high contrast to make the unseen details visible without additional lighting.



Fog

Snow

Darkness

Camouflage

### Multiple colour palettes

Wisenet thermal cameras provide seven different types of colour palette for users to select the best image in various situations. Each colour palette has a specific set of colours which change according to the temperature range of the scene.



White hot

Black hot

Rainbow

Custom

Sepia

Red

Iron

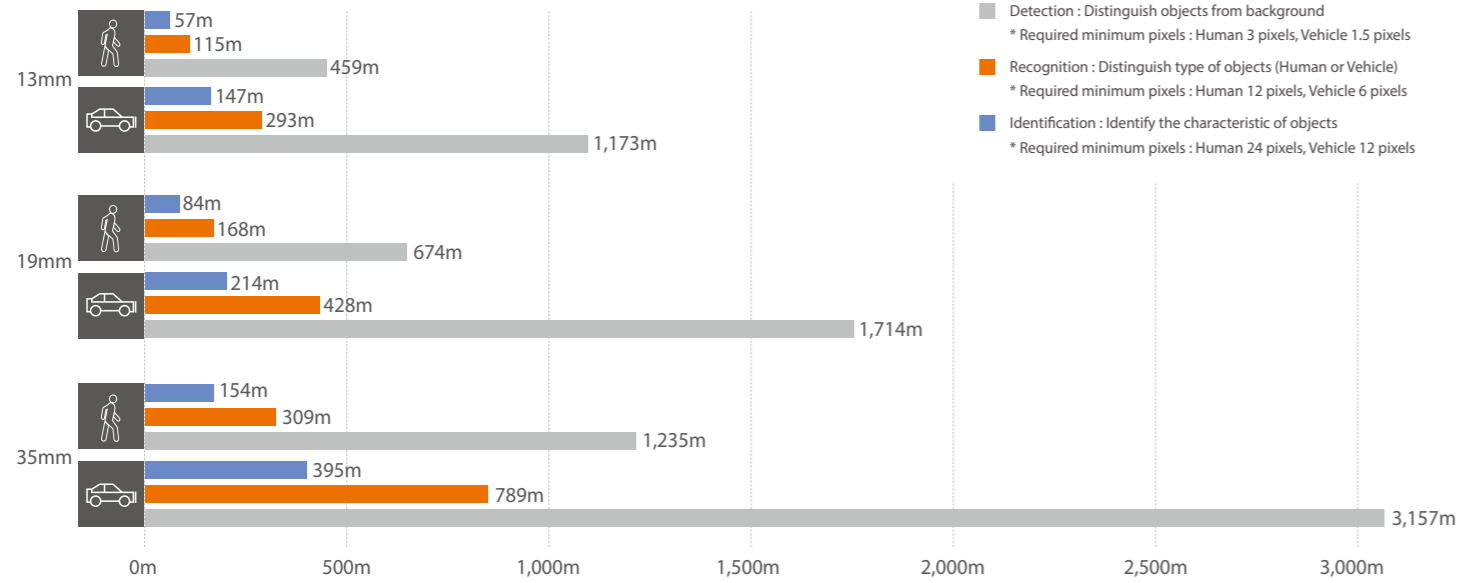


TNO-4051T/4041T

TNO-4050T/4040T/4030T

## Long detection range up to 3,157m

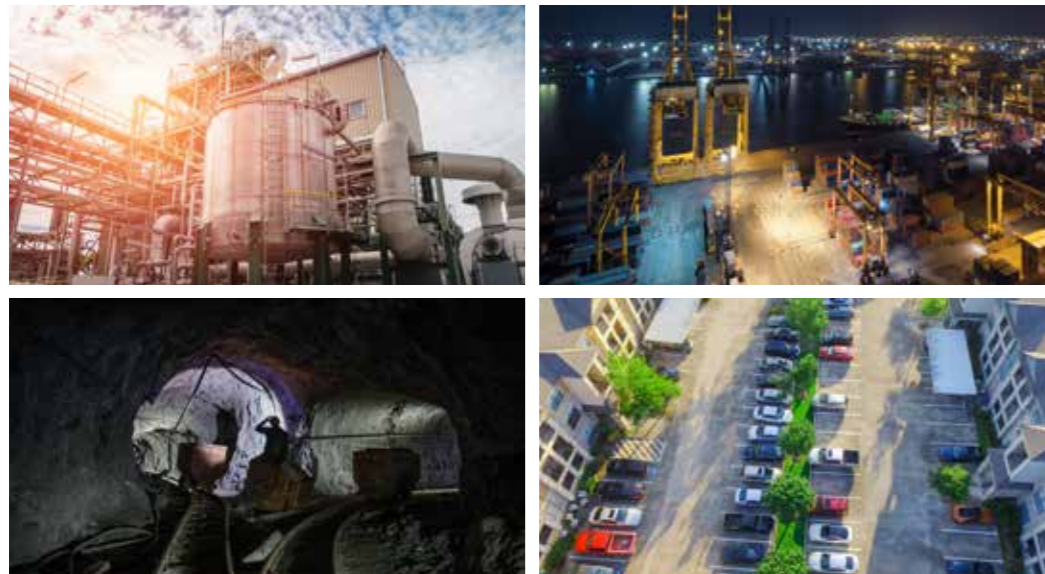
The main task of the thermal camera is to detect events that occur at long distances. Wisenet thermal cameras are equipped with a 35/19/13mm lens (Horizontal FoV 17°/32°/49°) to detect vehicles up to 3,157m away. The camera provides an image with high colour contrast according to the temperature, so it can easily distinguish objects and background from a long distance. At closer range it can recognise the type of object or identify the characteristic by capturing details.



\* The height of the human is 1.8m(5.9ft) and vehicle is 2.3m(7.5ft)

## Secure a wide variety of applications

Wisenet thermal cameras can be a powerful tool when monitoring applications where there is very little light, due to their ability to create images based on heat. Thermal cameras are especially applicable in manufacturing and industrial facilities, air and seaports, and mining areas.



- Industrial facilities
- Sea port
- Mining areas
- City surveillance
- Power plants
- Bridges
- Dams
- Pipelines
- Border security
- Warehouse

## Enhanced video & audio analytics

Wisenet T thermal cameras offer reliable video and audio analytics for efficient monitoring. The featured analytics improve the overall security system's efficiency by automatically notifying users when abnormal behaviour is detected.

### Temperature change detection

Drastic temperature changes can be detected in advance to prevent incidents occurring.  
(20/40/60/80/100°C difference from current temperature)



\* An alarm will be sent when a drastic temperature change is detected for a duration of 2 minutes.

### Motion Detection

An alarm is triggered when movement is detected within the defined user area.



### Sound classification

Audio analytics can help users respond immediately in dangerous situations, by classifying sounds such as gunshots, breaking glass, screams and explosions.



Gunshot



Glass breakage



Scream



Explosion

### Virtual line

Alarm events are automatically triggered when the camera detects the moving object crossing the virtual line.



### Shock detection

Shock detection protects the camera when events such as vibrations, quivers and shocks occur.



## Improve bandwidth by up to 99% using WiseStream II

When Hanwha Techwin's unique video compression technology WiseStreamII is combined with H.265 compression, the bitrate data is reduced by up to 99% compared to current H.264 technology. The costs of configuring and maintaining the system are also greatly reduced, while still maintaining the same pixels and high quality.



WiseStream II OFF : 7160kbps **WiseStream II ON : 74kbps**

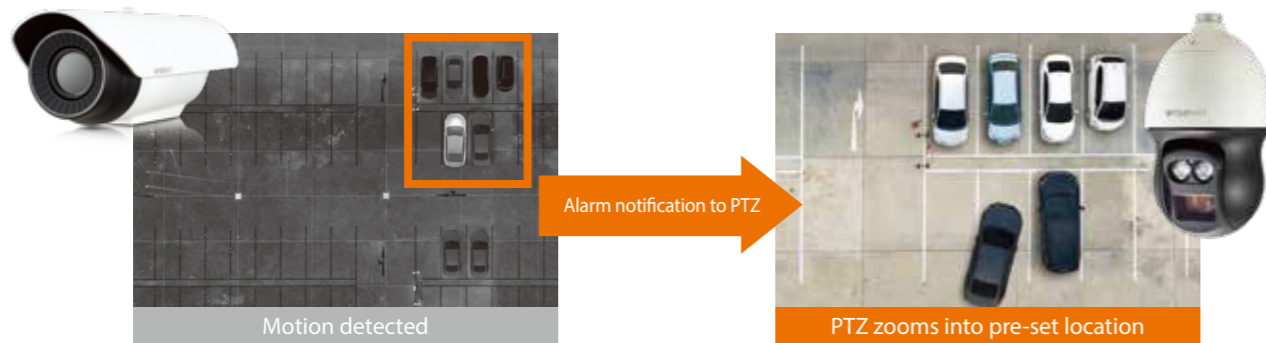


WiseStream II OFF : 7260kbps **WiseStream II ON : 1817kbps**

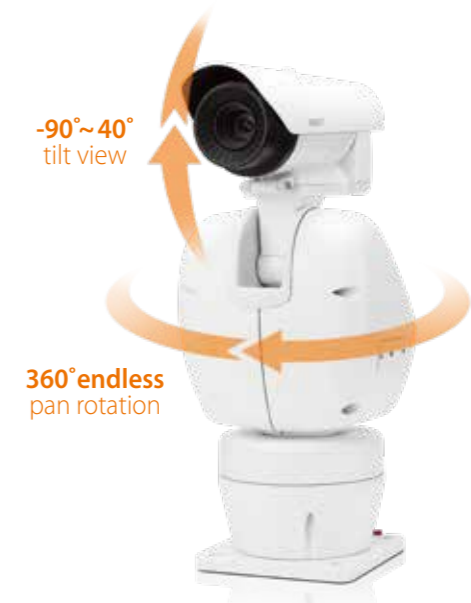
## Handover to PTZ

The handover feature allows a PTZ camera\* to receive an alarm from a thermal camera operating on the same IP video surveillance system. Once the notification is received, the PTZ camera zooms into the assigned camera pre-set location. With this feature, PTZ cameras support the thermal camera by providing high resolution images whenever a specific detail is required.

※ XNP-6370RH/6320H/6320, PNP-9200RH



## VGA Thermal Positioning Camera (TNU-4051T/4041T)



## Broad thermal monitoring with positioning

The TNU-4051T/4041T combines a thermal imaging camera and a positioning unit capable of monitoring a broad range, with its 360° endless pan and -90° to +40° tilt. In addition, the camera's flexibility is increased by 300 preset positions, allowing users to save the settings for pan/tilt functions and automatically view the location desired.



300 preset mode

## TNO-6320E

2M 32x Network Explosion-proof Camera



### Key Features

- Max. 2Megapixel (1920 x 1080) resolution
- Max. 60fps@2M all resolutions
- 4.44 ~ 142.6mm (32x) optical zoom, 16x digital zoom
- 0.15 Lux@F1.6 (Color), 0.015 Lux@F1.6 (B/W)
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Face detection, Tampering, Virtual line support
- Explosion-proof certificate (ATEX) : II 2 GD Ex d IIC T6 Gb, Ex tb IIIC T85°C Db
- Stainless 316L, Built-in wiper
- IP67, IK10

## TNU-6320E

2M 32x Network Explosion-proof PTZ Camera



### Key Features

- Max. 2Megapixel (1920 x 1080) resolution
- Max. 60fps@2M all resolutions
- 4.44 ~ 142.6mm (32x) optical zoom, 16x digital zoom
- 0.15 Lux@F1.6 (Color), 0.015 Lux@F1.6 (B/W)
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Pan/Tilt : 50°/sec (Preset), Endless rotation, 255 preset
- Face detection, Tampering, Virtual line support
- Explosion-proof certificate (ATEX) : II 2 GD Ex d IIC T6 Gb, Ex tb IIIC T80°C Db
- Stainless 316L, Built-in wiper
- IP67, IK10

## TNO-4051T

VGA Thermal Camera



### Key Features

- Max. 640 x 480 resolution support
- Built-in 35mm fixed lens
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Motion detection, Handover
- Tampering, Loitering, Directional detection, Audio detection, Sound classification, Shock detection, Temperature change detection
- SD / SDHC / SDXC memory slot (Max. 256GB)
- WiseStreamII support
- PoE, 24V AC, 12V DC
- IP66, NEMA4X

## TNO-4050T

VGA Thermal Camera



### Key Features

- Max. 640 x 480 resolution support
- Built-in 35mm fixed lens
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Motion detection, Handover
- Tampering, Loitering, Directional detection, Audio detection, Sound classification, Shock detection, Temperature change detection
- SD / SDHC / SDXC memory slot (Max. 256GB)
- Hallway View, WiseStreamII support
- PoE, 24V AC, 12V DC
- IP66, NEMA4X

## TNO-4041T

VGA Thermal Camera



### Key Features

- Max. 640 x 480 resolution support
- Built-in 19mm fixed lens
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Motion detection, Handover
- Tampering, Loitering, Directional detection, Audio detection, Sound classification, Shock detection, Temperature change detection
- SD / SDHC / SDXC memory slot (Max. 256GB)
- WiseStreamII support
- PoE, 24V AC, 12V DC
- IP66, NEMA4X, IK10

## TNO-4040T

VGA Thermal Camera



### Key Features

- Max. 640 x 480 resolution support
- Built-in 19mm fixed lens
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Motion detection, Handover
- Tampering, Loitering, Directional detection, Audio detection, Sound classification, Shock detection, Temperature change detection
- SD / SDHC / SDXC memory slot (Max. 256GB)
- Hallway View, WiseStreamII support
- PoE, 24V AC, 12V DC
- IP66, NEMA4X, IK10

## TNO-4030T

VGA Thermal Camera



### Key Features

- Max. 640 x 480 resolution support
- Built-in 13mm fixed lens
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Motion detection, Handover
- Tampering, Loitering, Directional detection, Audio detection, Sound classification, Shock detection, Temperature change detection
- SD / SDHC / SDXC memory slot (Max. 256GB)
- Hallway View, WiseStreamII support
- PoE, 24V AC, 12V DC
- IP66, NEMA4X, IK10

## TNU-4041T/4051T

VGA NW Thermal Positioning Camera



### Key Features

- Max. 640 x 480 resolution support
- Built-in 19mm (TNU-4041T), 35mm (TNU-4051T) fixed lens
- H.265, H.264, MJPEG codec, WiseStreamII support
- Max. 30fps@all resolutions (H.265, H.264)
- Tampering, Loitering, Directional detection, Audio detection, Sound classification, Shock detection, Temperature change detection
- Micro SD/SDHC/SDXC memory slot (Max. 256GB)
- 24V AC, NEMA 4X, IK10 (TNU-4041T)

## TNU-6320

2M Positioning Camera



### Key Features

- Max. 2megapixel (1920 x 1080) resolution
- 4.44 ~ 142.6mm (32x) varifocal lens
- Max. 60fps@2M (H.264), Max. 15fps@2M (MJPEG)
- H.264, MJPEG codec support
- Day & Night (ICR), WDR (120dB), Defog
- Tampering, Virtual line, Enter / Exit, (Dis)Appear, Face detection, Motion detection
- SD / SDHC / SDXC slot

## SPI-50

IR Illuminator



### Key Features

- Compatible IR Illuminator for TNU-6320
- Wavelength : 850nm
- Angle : 25°

## TNB-6030

Public View Monitor Camera



### Key Features

- 2Megapixel (1920 x 1080) resolution
- HDMI Output (1080p Full HD)
- True WDR (150dB)
- Face detection overlay
- Text overlay and blinking "Recording in progress"
- Discreet design for public view monitoring
- 60fps@all resolutions, 0.06 Lux@F2.5 (Color)
- 265, H.264, MJPEG codec supported, Multiple streaming
- SD/SDHC/SDXC memory slot (256GB)
- Hallway view, WiseStreamII, LDC support
- Bi-directional audio support, Alarm I/O (1)
- PoE, 12V DC

## TNV-7010RC

3M H.265 NW Corner Mount Camera



### Key Features

- Max. 3Megapixel (2048 x 1536) resolution
- Max. 30fps @ all resolutions (H.265/H.264/MJPEG)
- 0.3 lux @ F2.0 (Color), 0 lux @ F2.0 (B/W)
- Built-in 2.8mm fixed lens
- H.265, H.264, MJPEG codec support, Multiple streaming
- Day & Night, WDR (120dB)
- Video & audio analytics, Shock detection
- microSD/SDHC/SDXC memory slot (Max. 256GB)
- Hallway view, WiseStream II support
- PoE, DC 12V, IK10+

Notes

Lined area for notes on page 14.

Notes

Lined area for notes on page 15.



**WISENET T** series

**Hanwha Techwin Europe**

Heriot House, Heriot Road, Chertsey, Surrey, KT16 9DT., United Kingdom

Tel : +44.1932.578.100

[www.hanwha-security.eu](http://www.hanwha-security.eu)

© 2019 Hanwha Techwin Europe Co., Ltd. All rights reserved.

DESIGN AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE  
Under no circumstances, this document shall be reproduced, distributed or changed,  
partially or wholly, without formal authorization of Hanwha Techwin Europe Co., Ltd.

M.H-1712