

WISeNET

NETWORK VIDEO SOLUTIONS

For unique applications

WISeNET T series



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.



1x Zoom



32x Zoom



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.



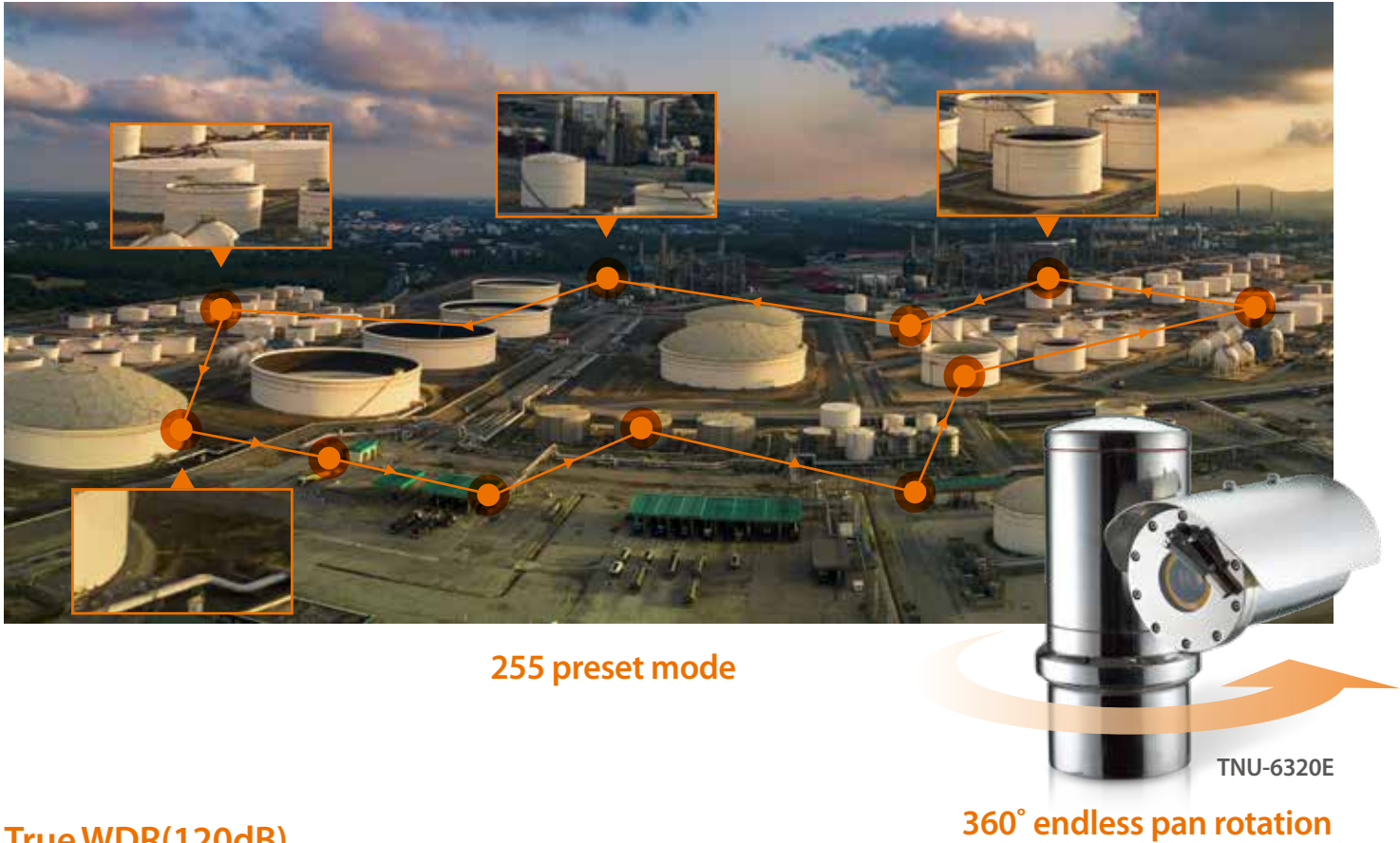
Defog off



Defog on

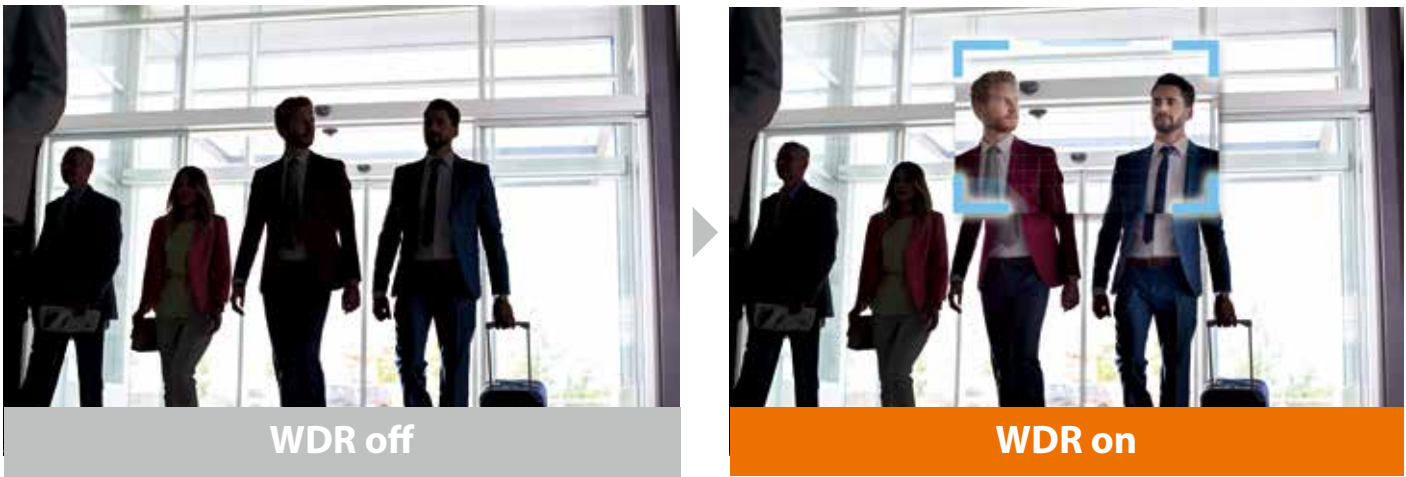
360° endless pan rotation and 255 preset mode

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.



True WDR(120dB)

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



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.



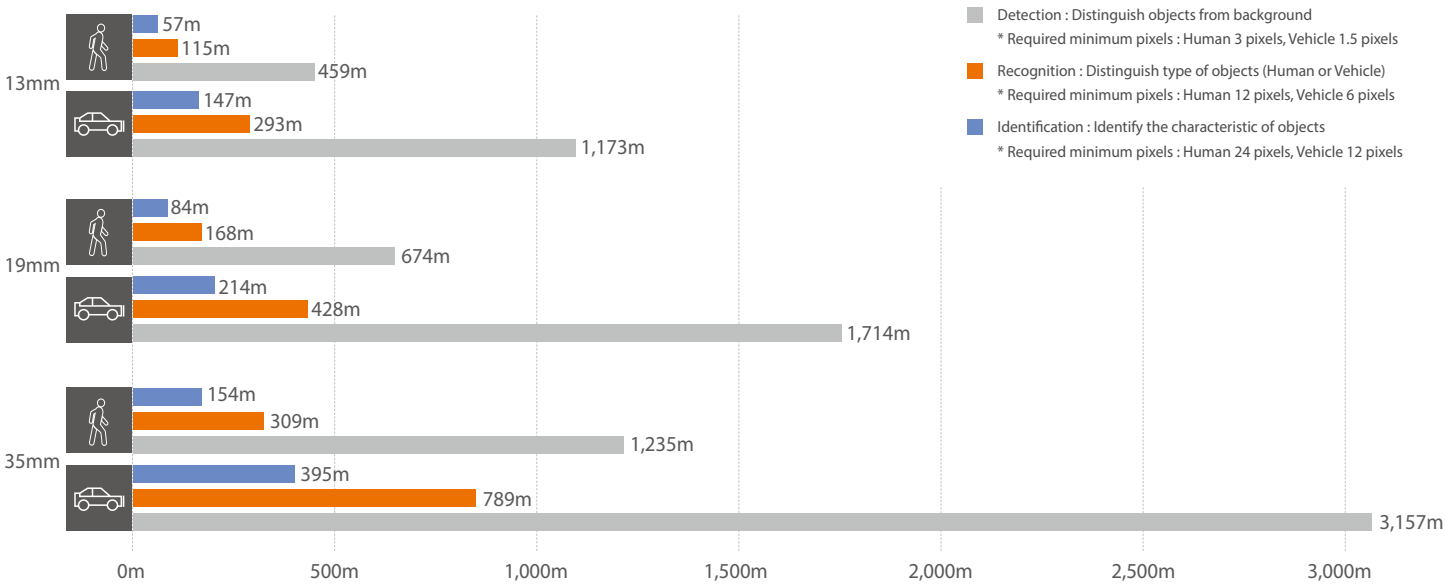
Multiple colour palettes

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.



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.

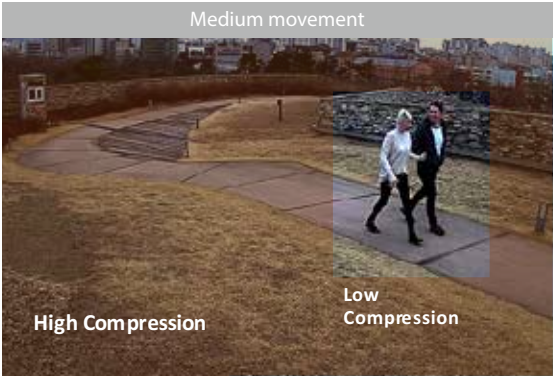


Improve bandwidth by up to 99% using WiseStream II

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**

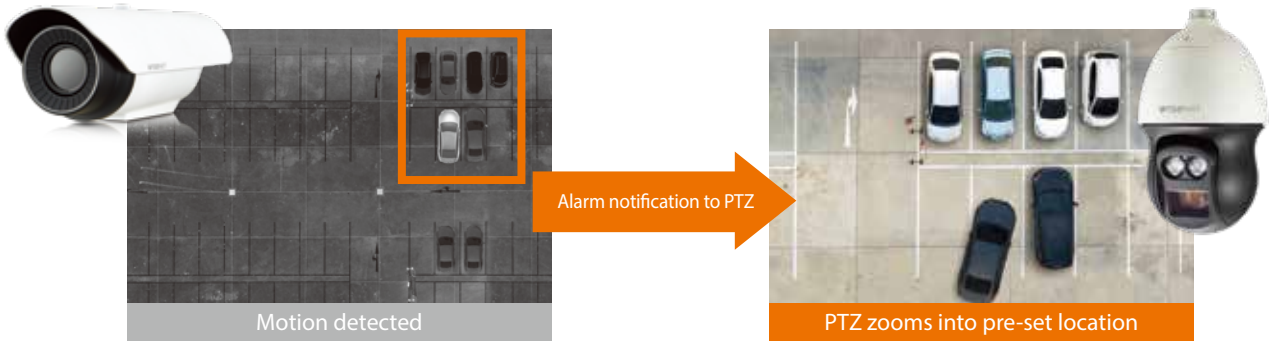


WiseStream II OFF : 7260kbps **WiseStream II ON : 1817kbps**

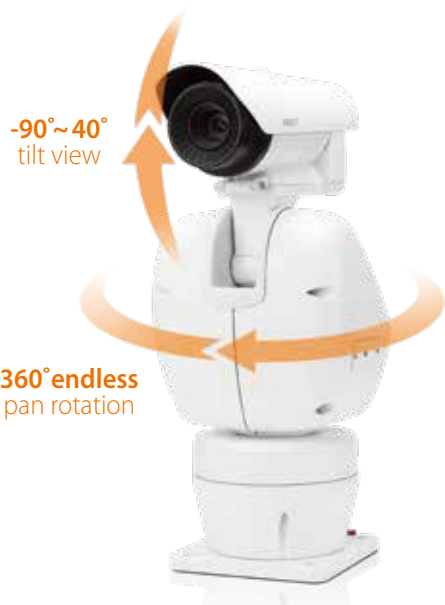
Handover to PTZ

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

VGA Thermal Radiometric Camera

(TNO-4041TR/4040TR/4030TR)



Temperature measurement to monitor incidents

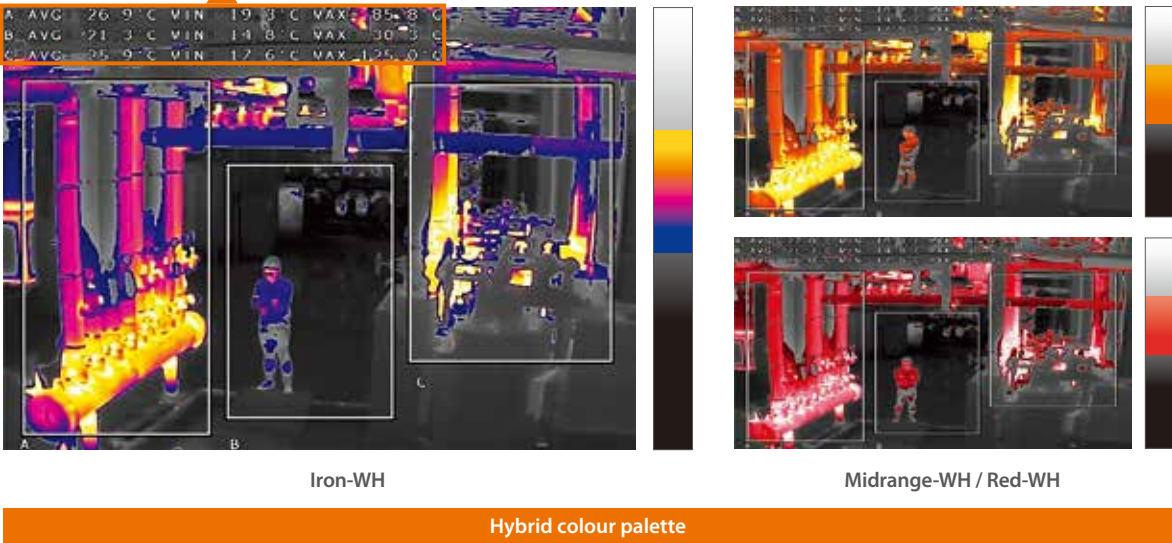
The Wisenet thermal radiometric camera has added a feature to detect the temperature range of -20°C to +130°C. Alarms are generated and sent to users whenever the temperature of three areas in the monitoring screen is above or below a defined value or the temperature increases or decreases beyond the preset range.

In addition, the screen displays average/minimum/maximum temperature of the three areas for more thorough temperature measurement. With accurate temperature measurement, radiometric cameras are perfect for monitoring high-risk areas such as power plants with fire hazards.

Selected temperature range displayed in vivid colours

Using a hybrid colour palette, the selected range of temperature can be displayed in vivid colours, helping users observe monitoring areas with greater ease. The temperature of the defined range is expressed in white hot or black and white, ensuring the camera covers the entire monitoring areas with thermal detection.

Temperature of 3 areas displayed on screen



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

TNO-4030TR/4040TR

VGA NW Thermal Radiometric Camera



Key Features

- Max. 640 x 480 resolution support
- Built-in 13/19mm fixed lens
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Sound classification, Temperature detection, Shock detection
- Micro SD / SDHC / SDXC memory slot (Max. 256GB)
- Hallway View, WiseStreamII support
- PoE, 24VAC, 12VDC / IP66, NEMA4X, IK10

TNO-4041TR

VGA NW Thermal Radiometric Camera



Key Features

- Max. 640 x 480 resolution support
- Built-in 13/19mm fixed lens
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Sound classification, Temperature detection, Shock detection
- Micro SD / SDHC / SDXC memory slot (Max. 256GB)
- Hallway View, WiseStreamII support
- PoE, 24VAC, 12VDC / IP66, NEMA4X, IK10

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+

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

© 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