

Thermal Cameras



Wisenet Thermal Camera Solutions

Webinar



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Agenda & Notes

- Webinar Introductions
- About Hanwha
- Introduction to Thermal Camera Solutions
 - Standard Thermal Cameras
 - Thermal Radiometric Cameras
 - Elevated Body Temperature Bi-Spectral Thermal Radiometric Camera
- Demos / Videos / Q&A



1. This webinar is being recorded and will be available for replay and in pdf format. Please visit <https://www.hanwhasecurity.com/trainings/webinars/> to view past webinars & sign up for future ones.

2. All participants have been put into listen only mode.

3. We will take Q&A time permitting and if time runs out to answer all of the questions, we will reply to you individually afterwards. Please use the Chat or Q&A section.

About Hanwha Techwin

- We are a Global Fortune 500 Company
- With a Supply Chain of Trust for cybersecurity including R&D, manufacturing, & QA/QC
- We develop innovative and proprietary SoC design and manufacturing,
- World-class optical design expertise for high-zoom optics for
- Video surveillance solutions across a wide range of industry verticals
- We are a Leading manufacturer in the video surveillance market

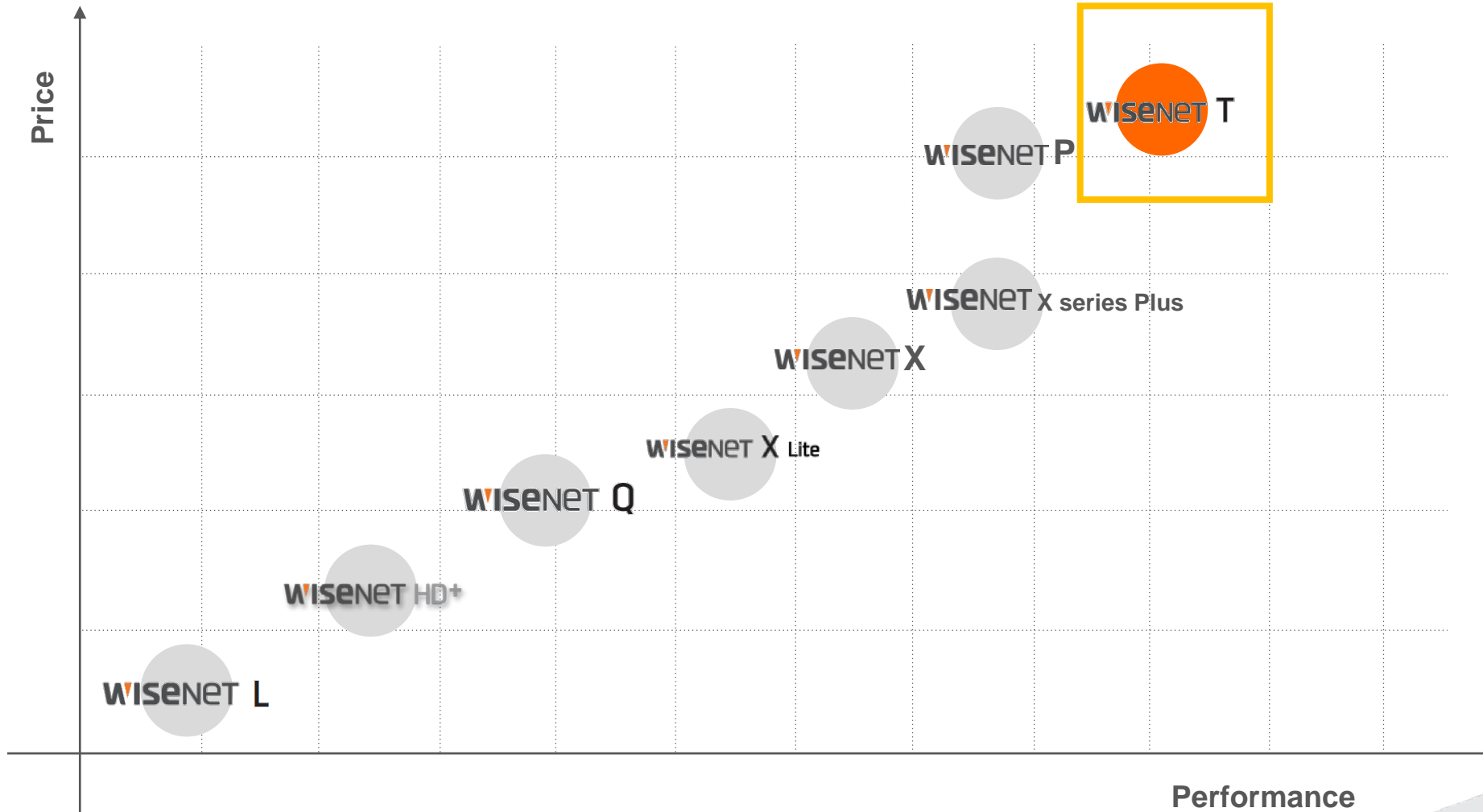


Manufacturing and Compliance

- Hanwha Techwin is a South Korean company with over 30 years of manufacturing experience in video surveillance. Our Supply Chain of Trust is critical to our cybersecurity.
- All IP cameras, analog cameras, NVRs, DVRs and encoders sold and distributed in North America are manufactured in Hanwha's facilities in **South Korea** and **Vietnam**.
- Hanwha Techwin manufactures a full suite of products compliant with **NDAA** and **TAA** provisions making them eligible for GSA Schedule Contracts and other government opportunities.



Series Positioning



Sales & Export Restrictions

- ※Please note: Please contact Hanwha Techwin for information on purchasing thermal cameras. Thermal cameras may not be available for purchase by all customers or shipped to all locations. Hanwha Techwin America restricts the purchase and shipment to Ultimate Consignee and Purchaser locations in the United States.

This product is subject to US export licensing requirements. Exports without an export license or other applicable authorization to most countries is prohibited by law.

Detect People and Objects 24/7 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 a 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.

<https://www.youtube.com/watch?v=JyDh7qzHkuo>



Fog



Snow



Darkness



Camouflage

Secure a Wide Variety of Applications

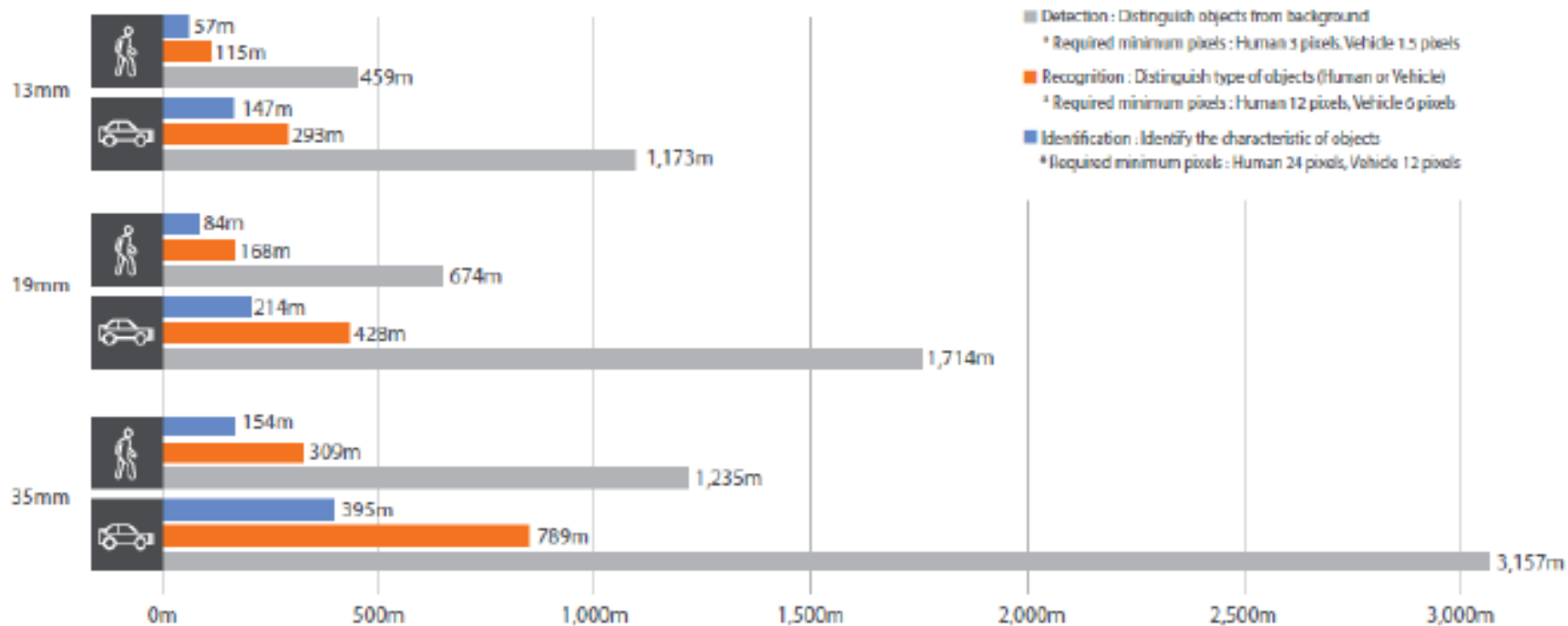
- Wisenet thermal cameras can be powerful tool when monitoring applications where there is very little light, due their ability to create images based on heat. Thermal cameras are especially applicable in manufacturing and industrial facilities, air and seaports and mining areas.



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

Long Range Detection up to 3,157 Meters

- 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 color contrast according to the temperature, so it can easily distinguish objects and background from a long distance. At closer range it can recognize the type of object or identify the characteristic by capturing details.



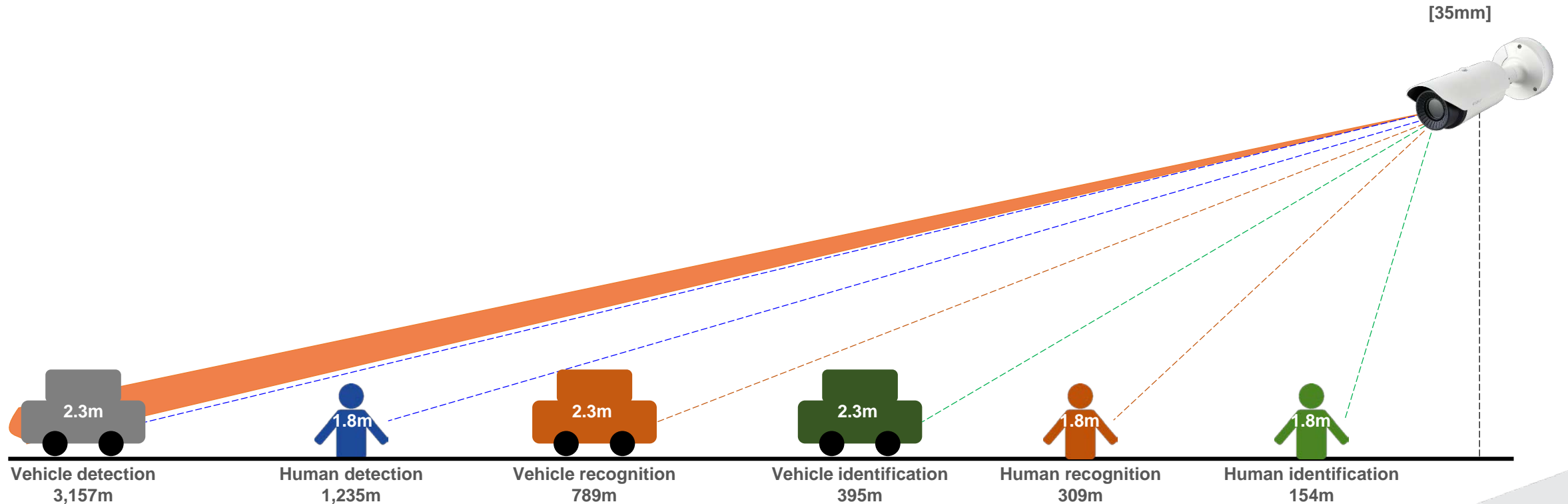
■ Detection : Distinguish objects from background
 * Required minimum pixels : Human 3 pixels, Vehicle 1.5 pixels
■ Recognition : Distinguish type of objects (Human or Vehicle)
 * Required minimum pixels : Human 12 pixels, Vehicle 6 pixels
■ Identification : Identify the characteristic of objects
 * Required minimum pixels : Human 24 pixels, Vehicle 12 pixels

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

Support Long Range Detection

Our thermal camera is suitable for wherever you want to monitor.

- 35mm support max. 3,157m for vehicle detection → horizontal 17°



Long Range Detection 35mm Lens

- 35mm supports up to 10,357' for vehicle detection → horizontal 17°

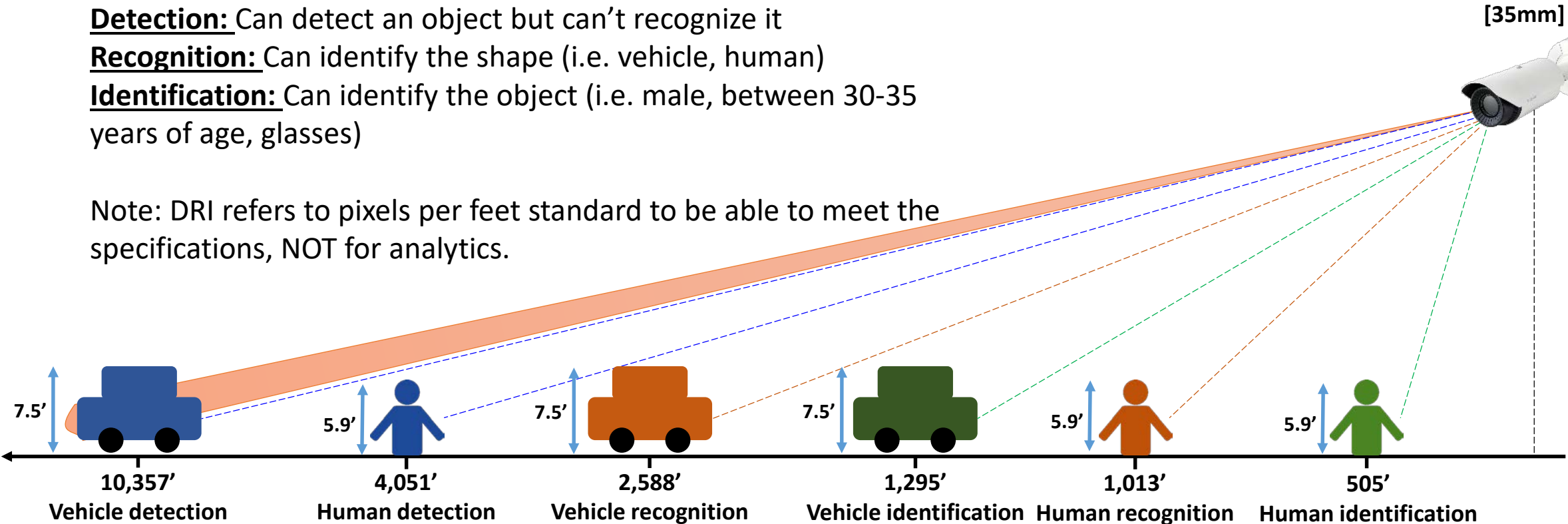
Detection: Can detect an object but can't recognize it

Recognition: Can identify the shape (i.e. vehicle, human)

Identification: Can identify the object (i.e. male, between 30-35 years of age, glasses)

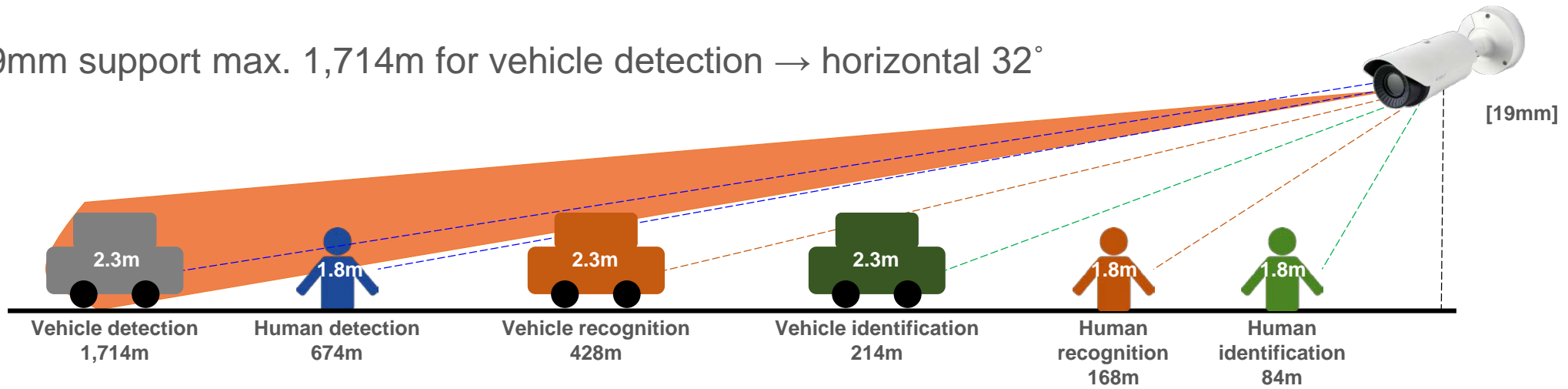
Note: DRI refers to pixels per feet standard to be able to meet the specifications, NOT for analytics.

[35mm]

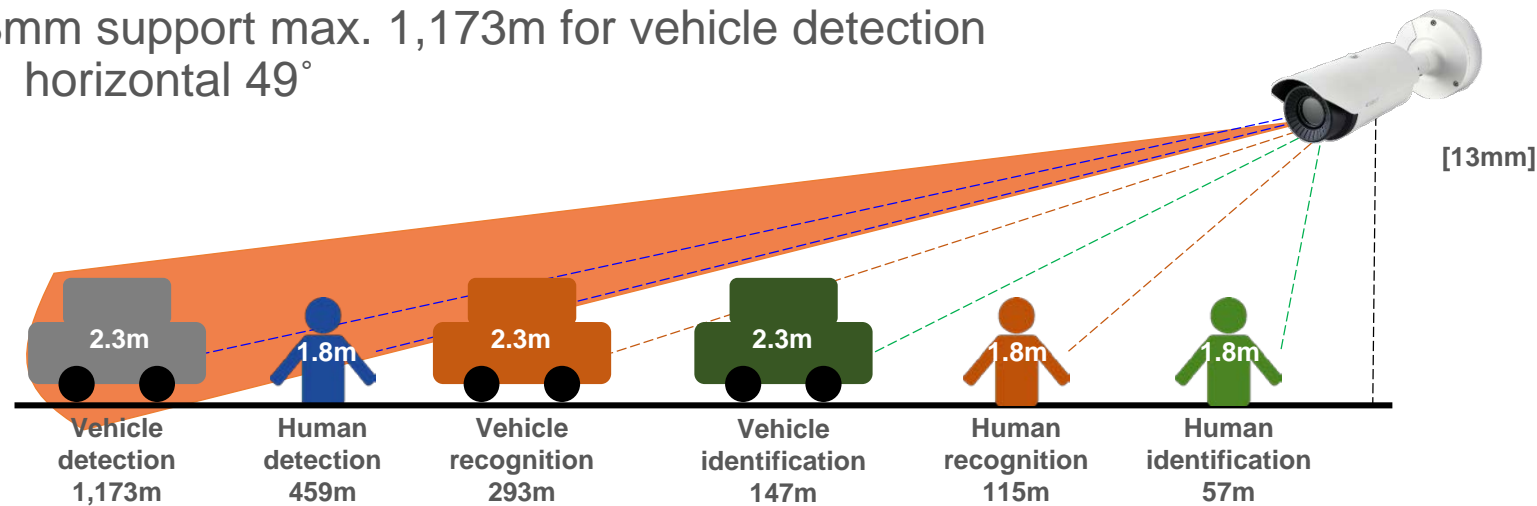


Support Long Range Detection

- 19mm support max. 1,714m for vehicle detection → horizontal 32°



- 13mm support max. 1,173m for vehicle detection → horizontal 49°



What is a thermal camera? How does it work?

- How does a thermal camera see temperature?
 - Electromagnetic radiation emitted from an object depends on its temperature
 - This radiation is due to the vibration of its molecules and is called thermal radiation.
 - Thermal radiation from objects can be emitted at any wavelength; objects around room temperature emit infrared radiation, objects with hotter temperatures emit higher frequency visible light, and even hotter objects emit ultraviolet light. This is why hot object, such as heated metal, a match, etc. glow red.



Thermal Camera Types

- Bullet Style Thermal Cameras VGA / QVGA models
- PT Head Style Thermal Camera
- PT Unit Thermal Cameras
- Thermal Radiometric
- Dual Spectral EBT Radiometric Camera



The Invisible Becomes Visible

- **Stable and Reliable Clear Thermal Image**
 - High resolution 640x480 / QVGA 320x240 thermal image
 - Various lens support (13mm/19mm/35mm)
 - Various type support (bullet / PT head / PT unit)
 - H.265 / H.264 support
 - Full frame streaming (640x480 30fps)
 - WiseStream II support
 - Hallway view support
 - DIS with Gyro-sensor
 - PoE/DC/AC
 - IP66/IK10 (depending on model)
 - PTZ Handover
 - Video and audio analytics

※ Detecting temperature range : -50°C ~ +130°C



QVGA Thermal Camera Lineup

Model	TNO-3010T	TNO-3020T	TNO-3030T
Image			
Type	Bullet	Bullet	Bullet
Resolution	320x240	320x240	320x240
Lens	<i>2.7mm, F1.0</i>	<i>4.7mm, F1.0</i>	<i>13.7mm, F1.0</i>
FoV	H92.0°, V65.5°, D125.7°	H50.0°, V36.4°, D65.3°	H16.0°, V12.0°, D20.0°
Operating Temp.	-40°C ~ +60°C	-40°C ~ +60°C	-40°C ~ +60°C
Protection	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10

VGA Thermal Camera Lineup

Model	TNO-4030T	TNO-4040T	TNO-4041T	TNO-4050T	TNO-4051T
Image					
Type	Bullet	Bullet	PT Head	Bullet	PT Head
Resolution	640x480	640x480	640x480	640x480	640x480
Lens	<i>13mm, F1.0</i>	<i>19mm, F1.0</i>	<i>19mm, F1.0</i>	<i>35mm, F1.0</i>	<i>35mm, F1.0</i>
FoV	H48.6°, V36.4°, D61.6°	H32.0°, V24.3°, D39.2°	H32.0°, V24.3°, D39.2°	H17.2°, V13.0°, D22.0°	H17.2°, V13.0°, D22.0°
Operating Temp.	-40°C ~ +60°C	-40°C ~ +60°C	-40°C ~ +60°C	-40°C ~ +60°C	-40°C ~ +60°C
Protection	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10	IP66, NEMA4X	IP66, NEMA4X

QVGA Thermal Cameras (Non-Radiometric)

Main Specifications:

- QVGA 320x240 @ 30fps
- Powered by Wisenet 5 chipset
- Triple Codec (H.265/H.264/MJPEG), WiseStream II
- CVBS output
- Open platform
- Shock detection, Temperature Change Detection
- IP66 / NEMA4X / IK10
- TNO-3xxx (24VAC/12VDC/PoE)

Model numbers:

- TNO-3010T: 2.7mm lens (92°)
- TNO-3020T: 4.7mm lens (50°)
- TNO-3030T: 13.7mm lens (16°)

°F



VGA Thermal Cameras (Non-Radiometric)

Main Specifications:

- VGA @ 30fps
- Powered by Wisenet 5 chipset
- Triple Codec (H.265/H.264/MJPEG), WiseStream II
- CVBS output
- Open platform
- Shock detection, Temperature Change Detection
- IP66 / NEMA4X / IK10
- TNO-4xxx (24VAC/12VDC/PoE)
- TNU-4xxx (24VAC only)

Model numbers:

- TNU-4041T: 19mm (32°) Lens Pan/Tilt Head Thermal Camera
- TNU-4051T: 35mm (17°) Lens Pan/Tilt Head Thermal Camera
- TNO-4030T: 13mm lens (49°) Bullet Thermal Camera
- TNO-4040T: 19mm lens (32°) Bullet Thermal Camera
- TNO-4050T: 35mm lens (17°) Bullet Thermal Camera
- TNU-4041T 19mm lens PT Unit
- TNU-4051T 35mm lens PT Unit



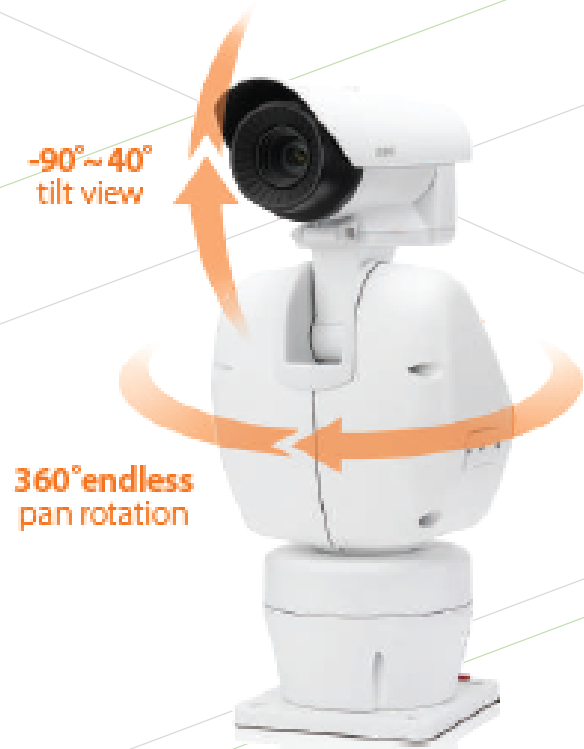
VGA Thermal Positioning Camera TNU-4051T / TNU-4041T (Non-Radiometric)

Specs

- 19mm / 35mm lens options
- Powered by Wisenet 5 chipset
- High resolution thermal VGA (640 x 480) resolution
- 360° endless panning with Look Up capability
- H.265, H.264, MJPEG triple codec support
- WiseStream II support
- Tampering, Loitering, Directional / Virtual Fence Line detection, Enter/ Exit, (Dis) Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature change detection

Use Cases

- DOD
- Airport
- Utility
- Ports
- Perimeter watch



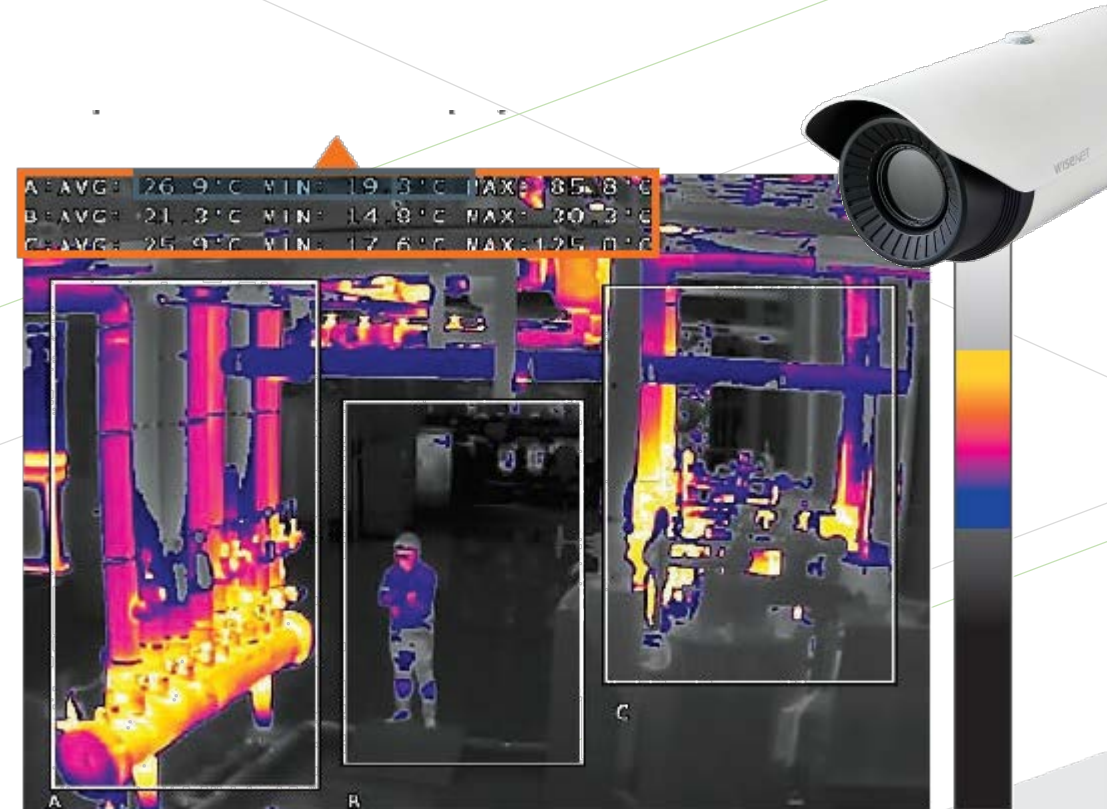
T series Radiometry Cameras

Specs

- Powered by Wisenet 5 chipset
- Color palette options
- Multiple lens option 19mm and 35mm
- Triple Codec (H.265, H.264 and MJPEG) with WiseStream II
- IP66 / IK10
- Trigger event based on specific temperature reading on 3 areas (Minimum / Maximum / Average, Above / Below / Increase / Decrease, Duration)
- Spot temperature measurement

Use Cases

- Power plants / utilities
- Temperature sensitive equipment
- Industrial machinery



VGA Thermal Cameras (Radiometric)

Main Specifications:

- Powered by Wisenet 5 chipset
- VGA @ 30fps
- Triple Codec (H.265/H.264/MJPEG), WiseStream II
- CVBS output
- Shock detection, Temperature Change Detection
- Three Temp Detection Range (-4°F ~ 266°F)*
- IP66 / NEMA4X / IK10
- 24VAC/12VDC/PoE

Model numbers:

- TNU-4041TR: 19mm (32°) Lens Pan/Tilt Thermal Camera
- TNU-4051TR: 35mm (17°) Lens Pan/Tilt Thermal Camera

*Temperature accuracy $\pm 9^{\circ}\text{F}$ ($\leq 211^{\circ}\text{F}$), $\pm 20\%$ ($> 212^{\circ}\text{F}$)



<https://www.youtube.com/watch?v=T-Qm6pBlzkc>



Key Features

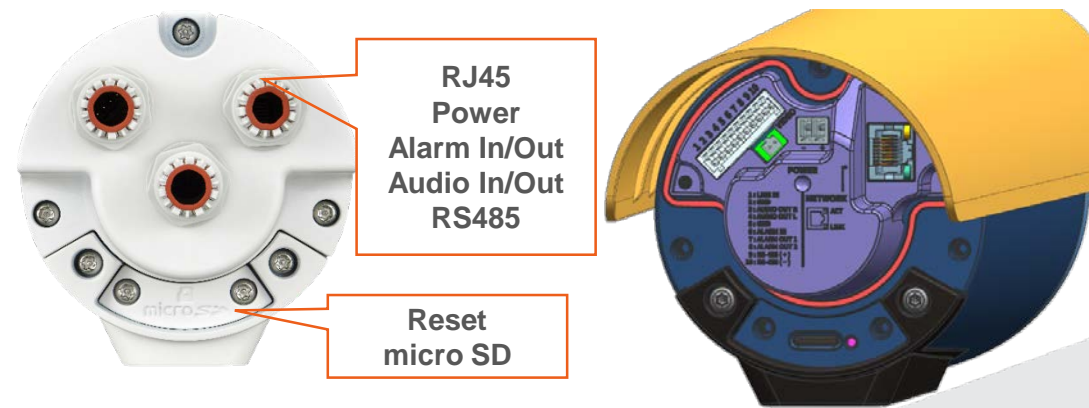
Easy Installation

[Bullet] All ports are on the back

- Provides a USB port for installation with Wi-Fi dongle and Wisenet Installation App



- [PT] : Easy to connect on a PT device (No USB port)



Enhanced Video and 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 behavior 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)



Virtual Line

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

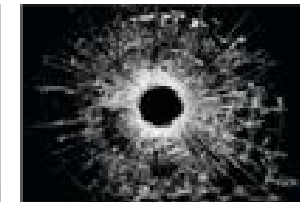


Sound Classification

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



Gunshot



Glass breakage



Scream



Explosion

Motion Detection

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



Shock Detection

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



A Wide Selection of Color Palettes

- Wisenet thermal cameras provide seven different types of color palettes for users to select the best image in various situations. Each color palette has a specific set of colors which change according to the temperature range of the scene. A custom color palette can also be specified.



WHITE HOT



BLACK HOT



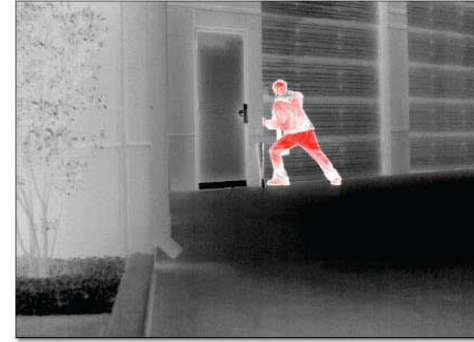
SEPIA



IRON



RAINBOW



RED HOT

Temperature Change Detection

Standard thermal cameras detect rapid temperature change detection. They are not radiometric or thermography cameras.

[SUPPORT]

- 3ea ROI for temperature detection
- Set temperature difference 20/40/60/80/100°C

[Does not SUPPORT]

- When temperature changes slowly
- When temperature is out of the range($<-20^{\circ}\text{C}$ or $<+110^{\circ}\text{C}$)

The screenshot shows the WISENET web interface for configuring temperature detection. The 'Temperature change detection' section is active, with the 'Enable Temperature change detection' checkbox checked. A thermal image of a person is displayed with a red bounding box around their head. The configuration options include 'Area' (1, 2, 3), 'Temperature difference' (20 °C), and 'Temperature type' (Maximum).

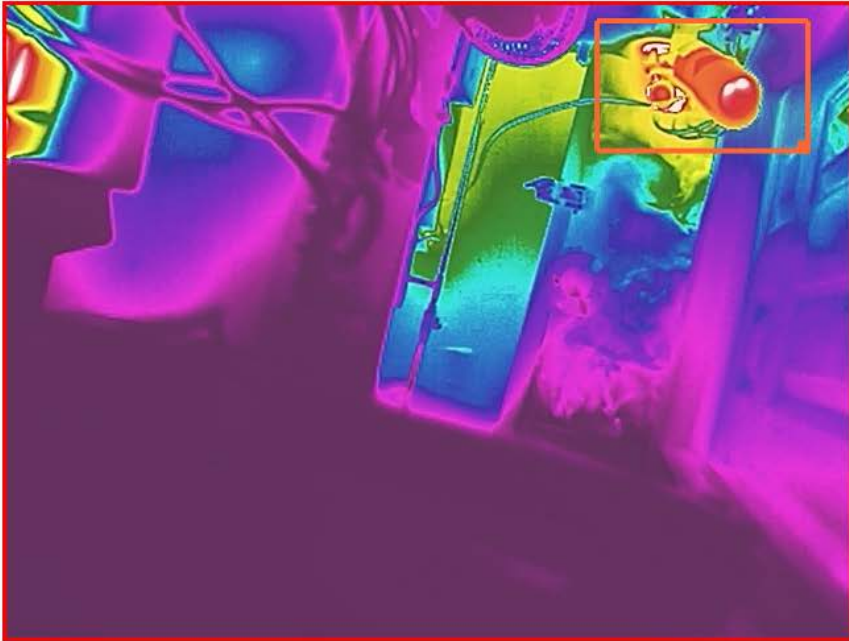
Temperature change detection compares the temperature value at the moment with the most recent 2 minutes of temperature data.

Temperature difference : 20/40/60/80/100°C
Temperature type : Maximum/Minimum/Average

Radiometric Temperature Detection

Temperature detection

Enable temperature detection



Area

A B C

Temperature type: Max

Detection condition: Above

Detection: 104 °F [-4...266]

Minimum duration (s): 1

Temperature area overlay:
 Area Avg Min Max

Area emissivity: 0.44 [0.01 ... 0.99]

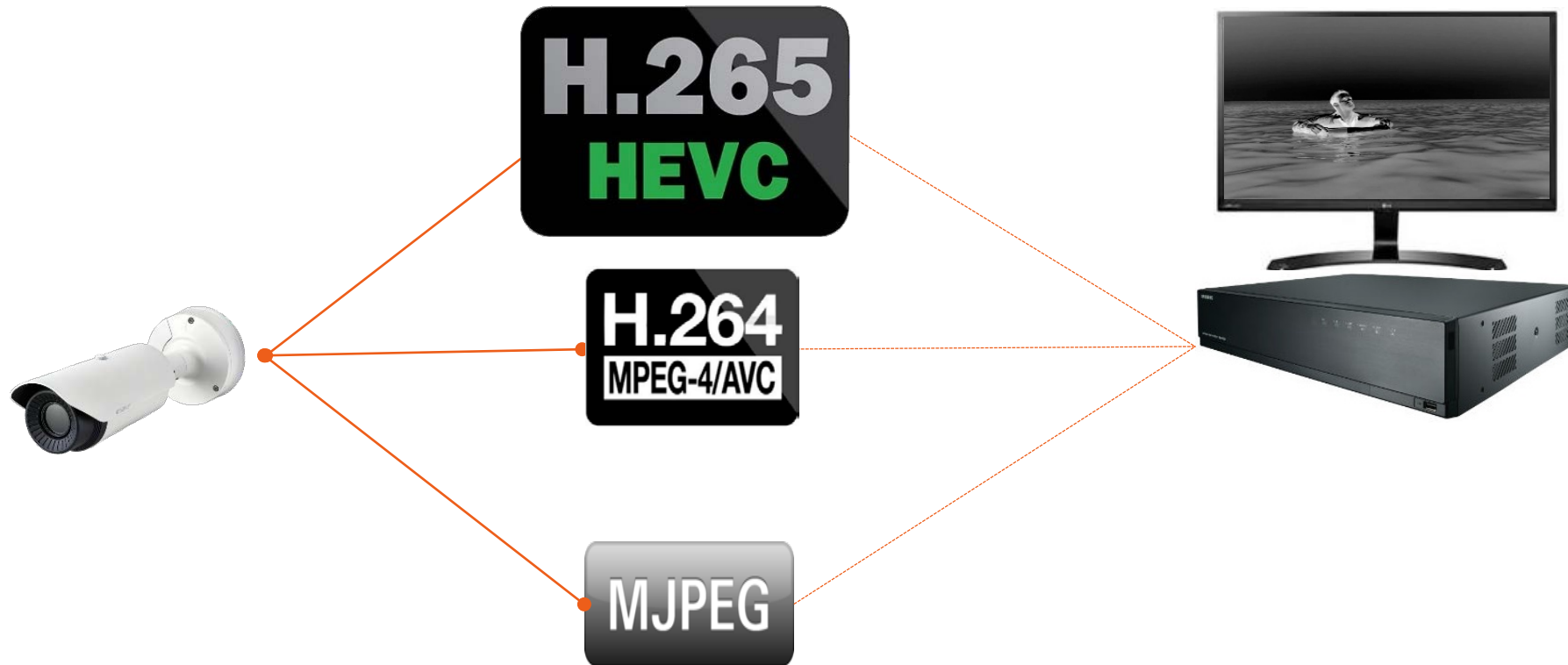
Handover: Off

Event action settings

FTP	<input type="checkbox"/> Enable
E-mail	<input type="checkbox"/> Enable
Record	<input type="checkbox"/> Enable
Alarm output 1	Off
Alarm output 2	Off



Optimize Storage and Bandwidth Efficiency

- H.265 and WiseStream II technology provides superior video streaming performance, allowing multiple video streams to be transferred simultaneously and minimize storage and bandwidth.



Efficient Network Transmission

- Improved Bandwidth Utilization with our WiseStream II Technology
 - When Hanwha Techwin's original video compression technology, WiseStream, II is combined with H.265 compression, the bitrate data is reduced by 50% on average compared to current H.264 technology
 - The costs of configuring and maintaining the system are also greatly reduced, while still maintaining the same high quality

Motion Low	Motion Mid
	
<p>WiseStream II OFF : 1024kbps WiseStream II ON : 175bps</p>	<p>WiseStream II OFF : 1024bkps WiseStream II ON : 250kbps</p>

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 will zoom 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.



WAVE Integration

- Easily configure Thermal analytics & configure alarm event rules

Camera Settings - TNO-4030TR Thermal - Wisenet WAVE Client

General Recording Motion Fisheye Advanced Web Page **Plugins** Expert

Hanwha analytics plugin Enable

Box Temperature Detection

Shock Detection

Tampering Detection

[AI] Objects & IVA & Face Mask

IVA Lines

IVA Areas

Exclude Areas


Audio Detection

Sound Classification

Box Temperature Detection

Temperature Area 1

Area 1



Display on video

Temperature Type: Max

Detection Type: Above

Threshold Temperature (Detection) (F): 104

Minimum Duration (s): 1

Area Emissivity: 44

+ Add

Event Rules - Wisenet WAVE Client

83cd054b-80a8-c629-6790-c1c764a40ca3 + Add - Delete Event Log...

#	On	Event	Source	Action	Target
<input type="checkbox"/>	On Analytics Event start		TNO-4030TR Thermal	Play sound	Select camera
<input checked="" type="checkbox"/>	Analytics Event		TNO-4030TR Thermal	Bookmark	TNO-4030TR Thermal

Event

When: Analytics Event Starts

At: TNO-4030TR Thermal

Event Type: Temperature change detection

Caption contains: Keywords separated by space

Description contains: Keywords separated by space

Schedule...

Comments:

Action

Do: Bookmark

at: TNO-4030TR Thermal

Fixed duration: 15 seconds

Pre-recording: 5 seconds

Post-recording: 0 seconds

Tags:

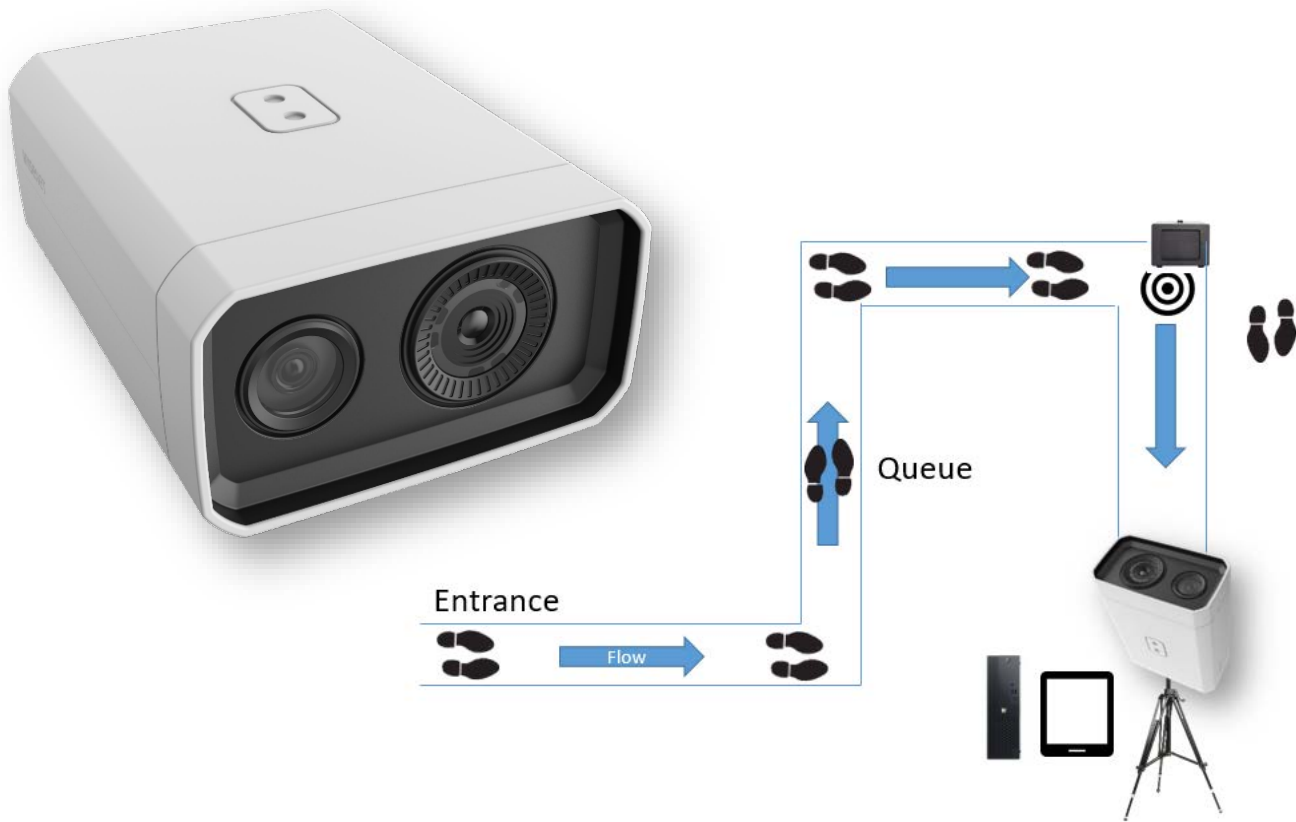
Restore All Rules to Default OK Apply Cancel

Demos

Elevated Body Temperature Detection

TNM-3620TDY

- Purpose built Bi-Spectral AI / Thermal
- Multi-person detection
- Accuracy within $\pm 0.54^{\circ}\text{F}$ w/ Blackbody, $.9^{\circ}\text{F}$ w/o Blackbody
- Verification & identification of subject with visible camera
- FDA 510K approved



CH1 : Visible



CH2 : Thermal



Temperature Detection Thermal Camera (TNM-3620TDY)

Identification

Visible image 2MP 4mm fixed lens (H : 87.6°, V : 46.4°)

Detection

Thermal image QVGA 4.7mm fixed lens (H : 50.0°, V : 36.4°)



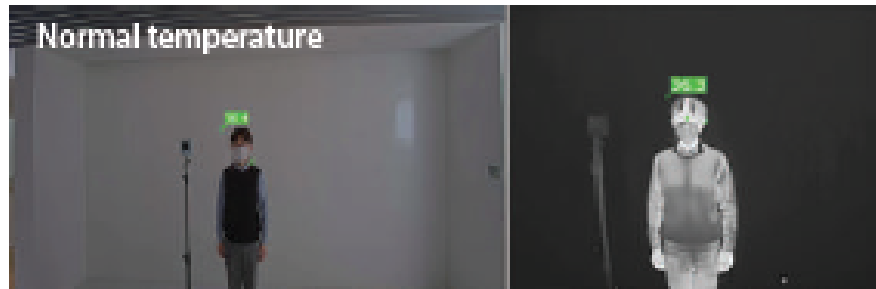
Bi-spectrum camera with dual lens for visible and thermal imaging

TNM-3620TDY camera features both QVGA (320x240) thermal camera with 4.7mm fixed lens and 2MP (1920x1080) visible camera with 4mm fixed lens together. This camera can quickly screen high temperature and can recognize the object (who the person is) with visible camera.

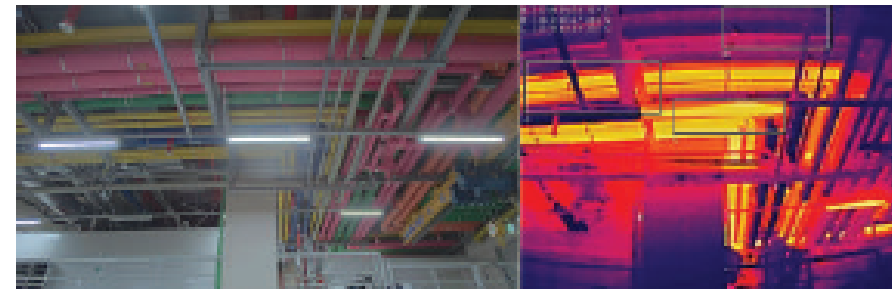
Two detection modes support

Users can select two modes of detection in the camera according to their needs: estimated body temperature (EBT) mode and normal radiometric mode. Under the EBT mode, the camera can cover temperature range between 30~45°C, use AI to detect faces, and measure the temperature over the eye area as it is closest to the core body temperature. In the normal radiometric mode, the temperature between -20~130°C can be measured, making it ideal for fire-sensitive areas such as utility tunnels and plants or forest fire monitoring.

EBT(Estimated Body Temperature) mode



Normal radiometric mode



High accuracy with AI deep-learning technology

TNM-3620TDY utilizes built-in AI deep-learning technology to detect the human faces and generates alarms for only humans, making the monitoring more precise and efficient. Users can choose a channel between visible camera and thermal camera to detect human faces. When the thermal camera is selected as a channel to detect human faces, it only detects faces with fever. And therefore, the faces of mannequins or faces in photographs are not detected as shown in the image below. In addition, users can synchronize images of two channels by calibrating the image grid, so that the camera can detect the exact location of objects' faces and measure body temperature.

* It doesn't detect face of mannequins



Demonstration Video

<https://www.youtube.com/watch?v=Xw1yBXnAHCg>



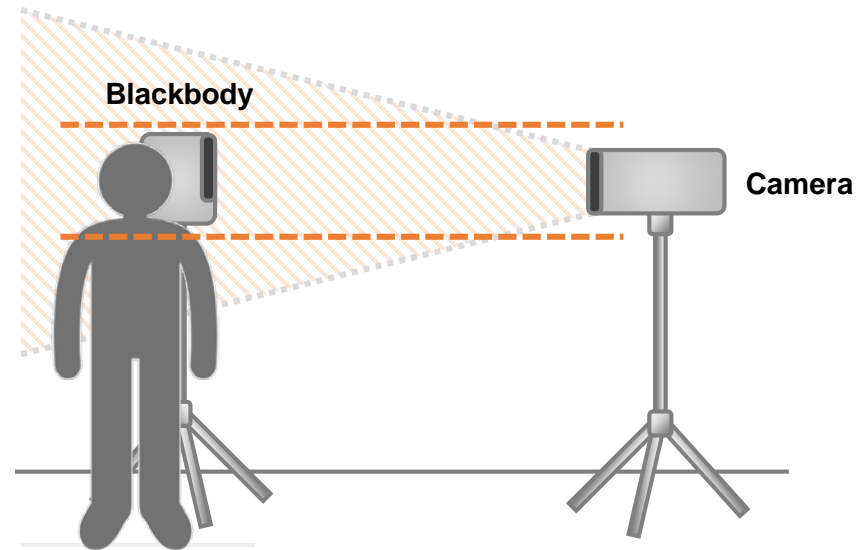
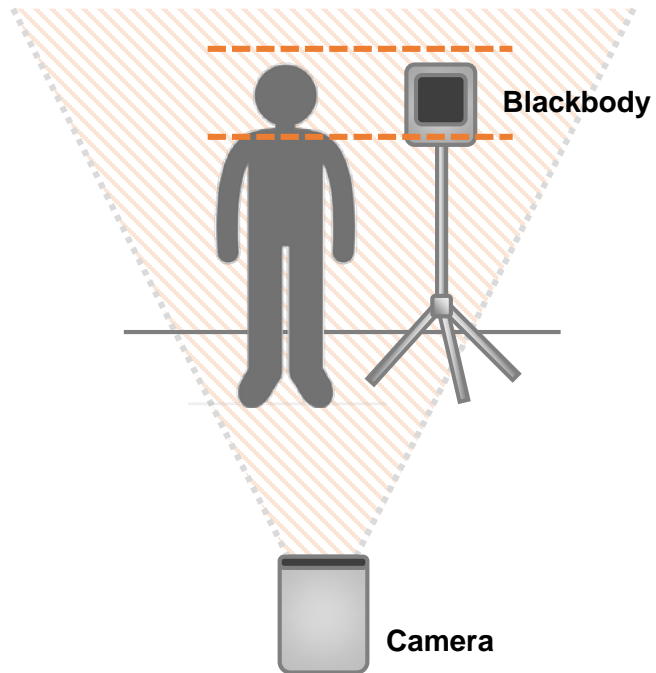
How to setup

Camera system setup

- Setup the temperature evaluating environment according the guide of FDA

<https://www.fda.gov/medical-devices/general-hospital-devices-and-supplies/thermal-imaging-systems-infrared-thermographic-systems-thermal-imaging-cameras>

- . Install camera and blackbody at a similar height to the face of the person being evaluated.

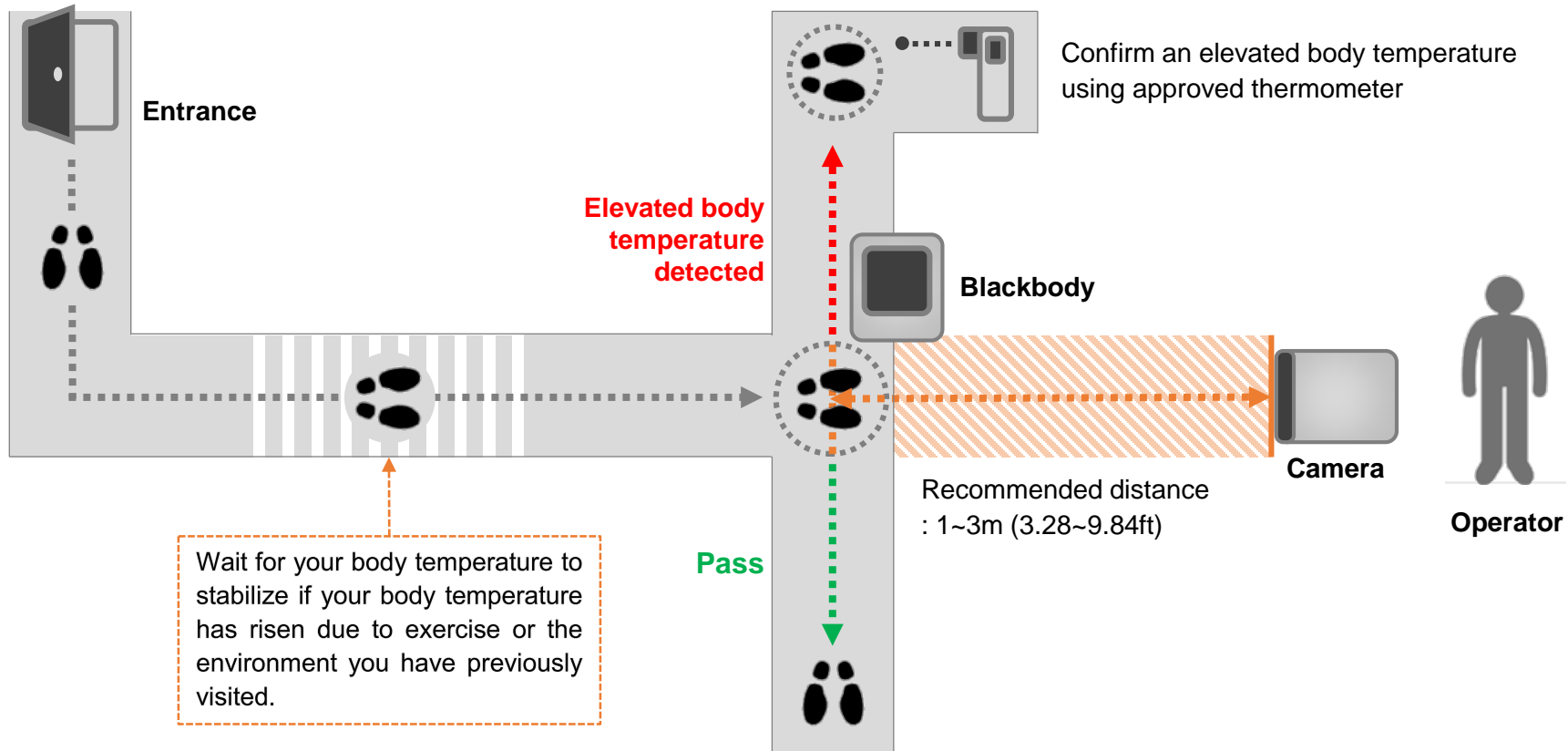


How to setup

Camera system setup

- Setup the temperature evaluating environment according the guide of FDA

<https://www.fda.gov/medical-devices/general-hospital-devices-and-supplies/thermal-imaging-systems-infrared-thermographic-systems-thermal-imaging-cameras>



Camera Setup – EBT Mode Configuration

WISENET

TNM-3620TDY admin Help

Basic

Video profile

Temperature setup

User

Date & Time

IP & Port

Video & Audio

Network

Event

Analytics

System

Temperature setup

Detection mode

Normal mode

Estimated body temperature detection mode

Temperature unit

°C

Face detection channel

CH 1 : Visible

Color palette

White hot

Variation sensitivity

12 [1...32]

Levels

MAX

MIN

Apply Cancel

Basic > Temperature setup

- 1) Select 'Estimated body temperature detection mode'.
- 2) Select temperature unit.
- °C / °F
- 3) Select Face detection channel.
- CH1 : Visible (Face) / CH2 : Thermal (Head)
- 4) Select Color palette.
- White hot(Default), Black hot, Rainbow 1, Rainbow2, Custom, Sepia, Red, Iron
(When 'CH1 : Visible' is selected for face detection)
- White hot only (When 'CH2 : Thermal' is selected for face detection)

Camera Setup – EBT Mode Configuration

WiseneT

TNM-3620TDY admin Help

Basic < Video & Audio < Network < Event < Analytics > Estimated body temperature detection System <

Estimated body temperature detection

1 Enable estimated body temperature detection

Temperature detection Compensation Calibration Common

2

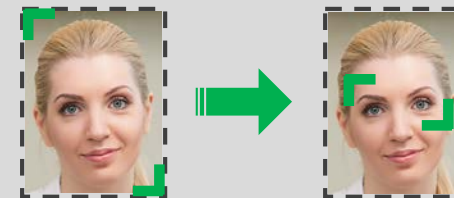
3

4

Apply Cancel

Analytics > Estimated body temperature detection > Temperature detection

- 1) Enable estimated body temperature detection
- 2) Enable Detection Area Overlay & Adjust face detection area. Draw an area for face detection to operate. Faces outside this area are not detected and temperature readings will not be taken.
- 3) Set Detection temperature and minimum duration. Event will only occur when higher temperature is detected longer than the duration.
- 4) Adjust Reference detection area. You can set the face area to extract the highest temperature



Note

A person needs to stand in front of the camera at detection distance for correct reference detection area adjustment.

Key Features

Customized detection area setup

The screenshot displays the Wisenet WEBVIEWER interface for configuring 'Estimated body temperature detection'. The browser address bar shows the URL: 10.1.14.50:8010/wmf/index.html#/setup/analytcs_ebTemperatureDetection. The interface includes a sidebar with navigation options: Basic, Video & Audio, Network, Event, Analytics (with 'Estimated body temperature detection' selected), and System. The main content area is titled 'Estimated body temperature detection' and features a checkbox to 'Enable estimated body temperature detection'. Below this are four tabs: Temperature detection, Compensation, Calibration, and Common. The 'Temperature detection' tab is active, showing a video feed of a person with a green bounding box around their face and a temperature reading of 98.6 F. To the right of the video feed is a configuration panel with the following settings:

- Detection area overlay: Enable
- Detection temperature: 99.5 °F [86...113]
- Minimum duration: 2 s [0...5]
- Temperature detection beep: Enable
- Reference detection area:
- Horizontal ratio: 100 [1...100]
- Vertical ratio: 100 [1...100]
- Location: (directional arrows)

Camera Setup – EBT Mode Configuration

Estimated body temperature detection

Enable estimated body temperature detection

Temperature detection Compensation Calibration Common

Reset

1 Enable custom offset 0 °C [-3...3]

Enable ambient temperature 23 °C [10...35]

Enable ambient humidity 0 % [0...100]

2 Detection distance 300 cm [100...500]

3 Enable blackbody compensation

Blackbody temperature 35 °C [30...45]

Blackbody temperature modification 0 °C [-9...9]

4 Blackbody emissivity 0.96 [0.01...0.99]

Blackbody distance 300 cm [100...500]

Blackbody height 180 cm [100...300]

Camera height 180 cm [100...300]

Camera tilt angle 0 ° [-89.9...89.9]

Blackbody error beep Enable

Current blackbody temperature: - °C 5

Apply Cancel

Analytics > Estimated body temperature detection > Compensation

- 1) Enable and input values according to usage environment for better accuracy
 - custom offset / ambient temperature and humidity
- 2) Set Detection distance
 - Input the distance between camera and the certain point where a person will be stand
- 3) Enable blackbody compensation and draw blackbody area
- 4) Input values according to the blackbody specification and installation.
- 5) Detected blackbody temperature will be displayed after configuration applied.

Caution

- SPI-35B blackbody's default temperature and emissivity is applied in camera default setting
- Blackbody area must be drew inside of emitting surface. Please be careful not to set outside or cross the emitting surface.

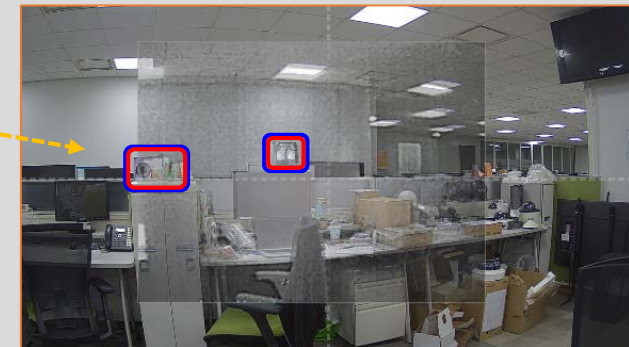


Camera Setup – EBT Mode Configuration

The screenshot shows the Wisenet web interface for configuring an Estimated Body Temperature (EBT) detection camera. The page title is "Estimated body temperature detection". A checkbox labeled "Enable estimated body temperature detection" is checked. Below this are four tabs: "Temperature detection", "Compensation", "Calibration", and "Common". The "Calibration" tab is active. It features a live video feed of an office environment. A red circle with the number "1" is placed over the video feed. Four small rectangular overlays are visible on the video: one blue and three red. To the right of the video is a "Location" control with up, down, left, and right arrow buttons. At the bottom of the calibration section are "Apply" and "Cancel" buttons.

Analytics > Estimated body temperature detection > Calibration

- 1) This is a coordinate calibration of two channels.
(Related to Overlay box, reference detection area)
Adjust location of overlay thermal image on visible image to fit each other.



Note

A person needs to be standing in front of the camera at the detection distance for correct calibration.

Camera Setup – EBT Mode Configuration

The screenshot displays the Wisenet WEBVIEWER interface. The browser address bar shows the URL: `10.1.14.50:8010/wmf/index.html#/setup/analytics_ebTemperatureDetection`. The interface includes a navigation menu on the left with categories: Basic, Video & Audio, Network, Event, Analytics (highlighted), and System. Under the Analytics category, 'Estimated body temperature detection' is selected.

The main content area is titled 'Estimated body temperature detection' and features a checked checkbox for 'Enable estimated body temperature detection'. Below this are four tabs: 'Temperature detection', 'Compensation', 'Calibration', and 'Common'. The 'Common' tab is active, showing a 'Location' control with directional arrows (up, down, left, right).

A video feed in the center shows a person in an office environment with a green bounding box around their face and a temperature reading of '95.0 F'. At the bottom of the configuration area are 'Apply' and 'Cancel' buttons.

The Windows taskbar at the bottom shows the system tray with the time '3:31 PM' and date '10/21/2020'.

Camera Setup – EBT Mode Configuration

The screenshot displays the 'Estimated body temperature detection' configuration page in the Wisenet interface. The page is titled 'Estimated body temperature detection' and includes a checkbox to 'Enable estimated body temperature detection'. The configuration is divided into four tabs: 'Temperature detection', 'Compensation', 'Calibration', and 'Common'. The 'Common' tab is currently selected. The video feed shows a person in a room with a red bounding box around their face and a blue box on their forehead. The configuration options are as follows:

- Sensitivity:** A slider set to 3.
- Size:**
 - Minimum: 64 X 64
 - Maximum: 432 X 432
- Temperature:**
 - Maximum temperature limit: 45 °C [30...45]
 - Minimum temperature limit: 30 °C [30...45]

Buttons for 'Apply' and 'Cancel' are located at the bottom of the configuration area.

Analytics > Estimated body temperature detection > Common

- 1) Adjust face detection sensitivity
- 2) Set size or temperature detection filter according to usage environment.

Demo

WISENET

Thank You!

Questions?



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