

Installation guide

People Counting & Heatmap

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Security cameras that provides high quality image, varied view angle and advanced image processing are developed and deployed. This brings various applications over legacy video surveillance system. Information gathering and analysis technology is one of them which rapidly improving.

Hanwha Techwin camera provides various type of information such as tampering, defocus, movement and audio detection. In addition, people counting and heatmap feature through video analytics which allows advanced information beyond simple video surveillance.

People counting and heatmap features count the movement of people, then provide information and statics by timeline. It saves user's time, manpower, expenses and also help to create added value.

This document is designed to help users better understand and conveniently use our products and features; people counting and heatmap.

Hanwha Techwin people counting and heatmap features provide optimized performance when set-up according to instructions below.

The video analytics feature can be affected by surroundings such as lighting, view angle and etc. Therefore, please carefully refer to and follow below instructions for camera installation. Otherwise, performance will not be assured.

2. 1. Direction of Camera

The camera should be mounted overhead and the lens should point 90°, straight down to optimize the performance of people counting and heatmap feature. If the camera is mounted overhead with the lens pointing diagonally, the performance is not guaranteed. The ideal installed height is between 2.5m to 4.5m with no lens obstruction. See Image 1.

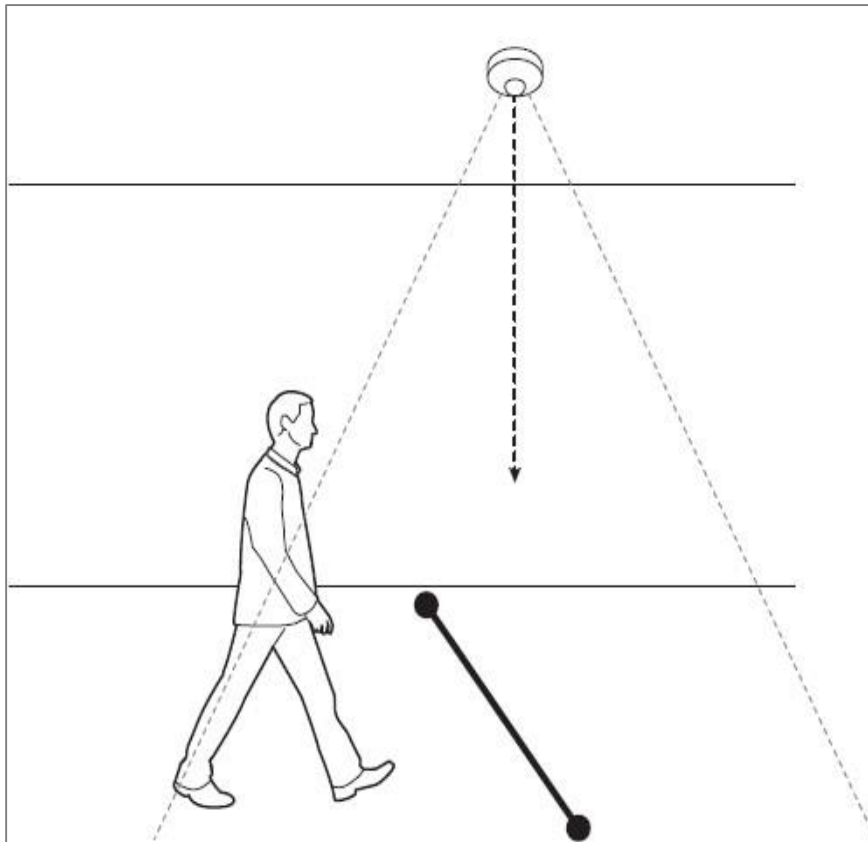


Image 1. Ideal camera installation

2. 2. Lighting around Camera

Environments with stable lighting is optimal for video analytics. Recommended illuminance is 300 to 600 lux, and environments with a strong light source such as direct sunlight, sunrise, sunset or any direct lighting should be avoided.

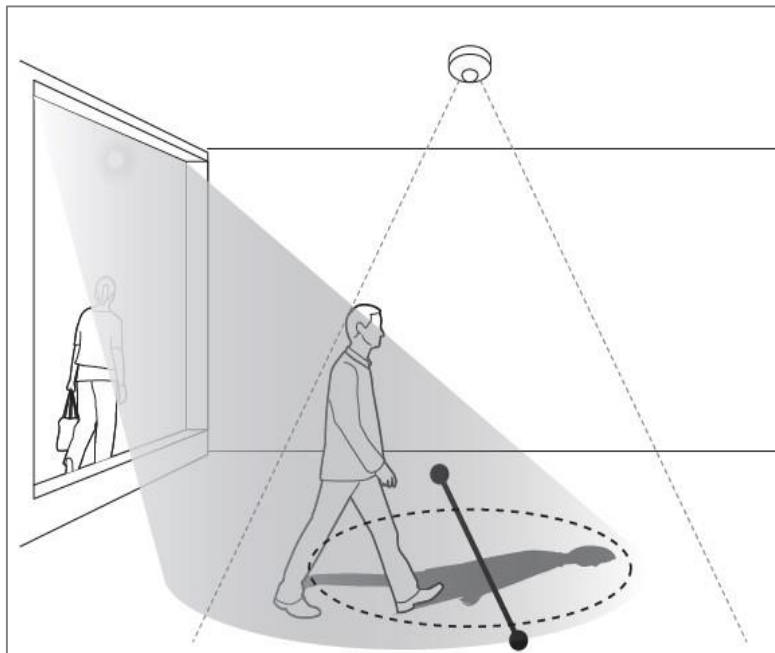


Image 2. Avoid direct lighting on virtual line

2. 3. Object around Camera

People counting is based on recognition of moving object. Therefore, performance can be affected if there is a revolving or automatic door (or any moving object at a fixed location) near counting rule (virtual line) or in camera's view.

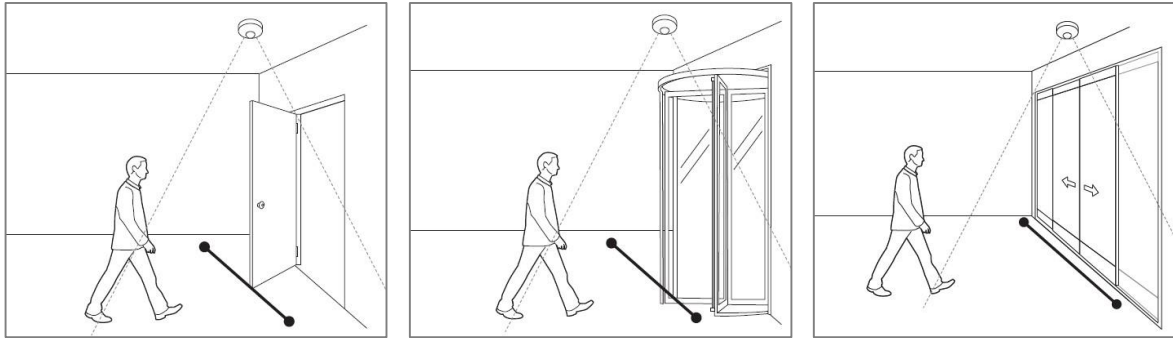


Image 3. Avoid moving objects near virtual line

As the network video surveillance market has grown, many customers now require advanced features. The Wisenet5 SoC has been developed to meet these requirements to support many different vertical industries and work in any environment and application.

Compared to previous generation Wisenet3, Wisenet5 greatly enhanced its performance from design and manufacturing processes to advanced intelligence features.

3. 1. Wisenet5 Key Features

The Wisenet5 SoC utilizes Hanwha Techwin’s unique video processing technologies to greatly enhance image quality. The chipset supports WDR based on its improved video processing performances, and noise reduction with minimized motion blur and greatly improved sensitivity.

It also supports the WisestreamII smart codec which further processes the image to reduce bandwidth and storage for H.265 and H.264 video streams. Enhanced intelligent video analytics features are included to provide license-free event notification and recording. These analytics include digital image stabilization (DIS), heatmap, people counting, loitering, virtual line crossing, face/body detection, shock & tampering detection, and defocus detection. Audio detection and sound classification analytics are also included, which detects and analyzes sounds including screaming, gunshots, breaking glass, and explosions.



Image 2. Conventional WDR (left) and Wisenet5 WDR (right) comparison

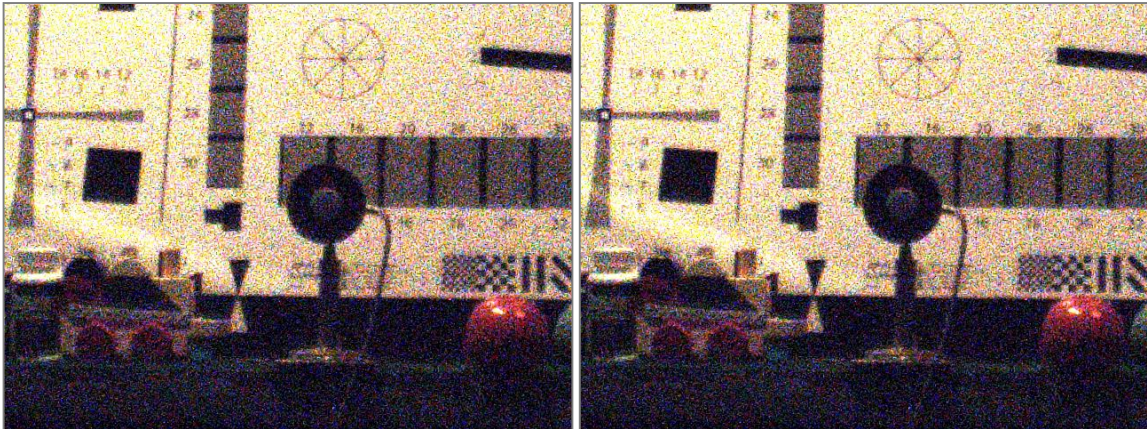


Image 3. Wisenet5 noise reduction off(left) and on(right)

4. Conclusion

Wisenet5 is the Hanwha Techwin SoC designed and optimized for the new Wisenet X series of network cameras. It has marked improvements on not only resolution but also intelligent features.

Since the release of the Wisenet5 SoC, Hanwha Techwin has invested in R&D efforts to develop its next-generation SoC. These new products are designed to be best in class while having a reliable lifespan. These efforts all start with the in-house development of our own, unique System on a Chip. We are pleased to offer these new products to you to protect your people, buildings, and assets safely and securely for years to come.

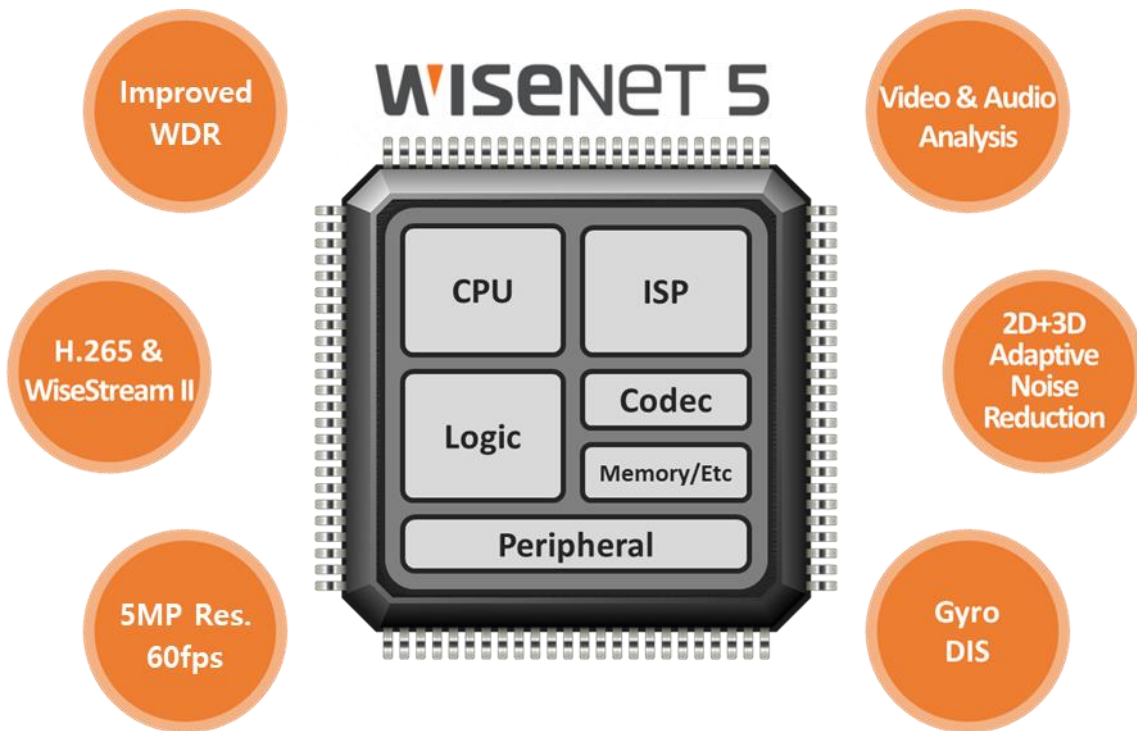


Image 4. Wisenet5 SoC structure and key features

WISENET

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