ACTi
Knowledge Base

The Market Leading Technology of KCM Generation Models

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Introduction

ACTi unique value in IP surveillance market is the ability to develop end-to-end core technology for IP surveillance devices. The ACTi designed ISP in newest KCM series cameras carries the market leading technologies to fulfill the one and only purpose – an undisputable video evidence with clear details regardless camera location, lighting or weather conditions.

The most powerful feature of new ISP is already quite well known – the fast and accurate **auto focus** regardless of the complexity of the scene. Besides that, there are many other powerful technologies in ACTi ISP that help with ensuring perfect video evidence, some of which are unique in the video surveillance technology market.

The following chapters introduce **Extreme Dynamic Range**, **Defogging**, **2D+3D Digital Noise Reduction** and **Edge Enhancement** technologies.

Extreme Dynamic Range (ExDR)

ACTi developed **Extreme Dynamic Range** technology is the most advanced approach of improving the dynamic range of the camera. While many other WDR technologies enhance the dynamic range while producing noise, blur edges of objects and untrue colors, ACTi technology is designed to improve the dynamic range while keeping the true colors, sharp edges of objects and free from noise.

ExDR off

ExDR on

Defogging

Defogging is the unique technology developed by ACTi to handle very complex weather conditions such as fog, rain, or severe air pollution. The ISP is able to understand the impact of the fog to every pixel of the video and remove it. Such technology solves the requirement of having clear video evidence in the areas where the fog occurs frequently.

Defogging off

Defogging on

2D+3D Digital Noise Reduction

The most advanced **2D+3D Digital Noise Reduction** technology is able to detect and remove noise by analyzing different pixels of a single frame (2D DNR) or by comparing multiple frames with each other (3D DNR). By applying both 2D and 3D DNR technologies, it is possible to ensure that there is no noise missed out in removal process, and at the same time there are no actual details mistakenly removed.

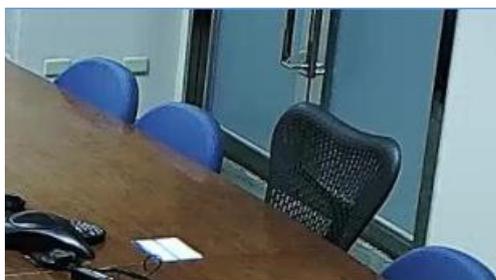

2D+3D DNR off

2D+3D DNR on

Edge Enhancement

ACTi **Edge Enhancement** technology sharpens the edges of the objects thereby making them clearly distinguishable and more comfortable for surveillance officer's eyes to monitor.

Edge Enhancement off

Edge Enhancement on

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KCM Series Models vs Technologies

The following table shows the availability of new technologies in ACTi cameras:

ISP Technology	KCM-5211E	KCM-5311E	KCM-3911
Optical Zoom & Auto Focus	✓	✓	Fixed lens
ExDR	✓	✓	✓
Defogging	✓	✓	✓
2D+3D DNR	✓	✓	✓
Edge Enhancement	✓	✓	✓