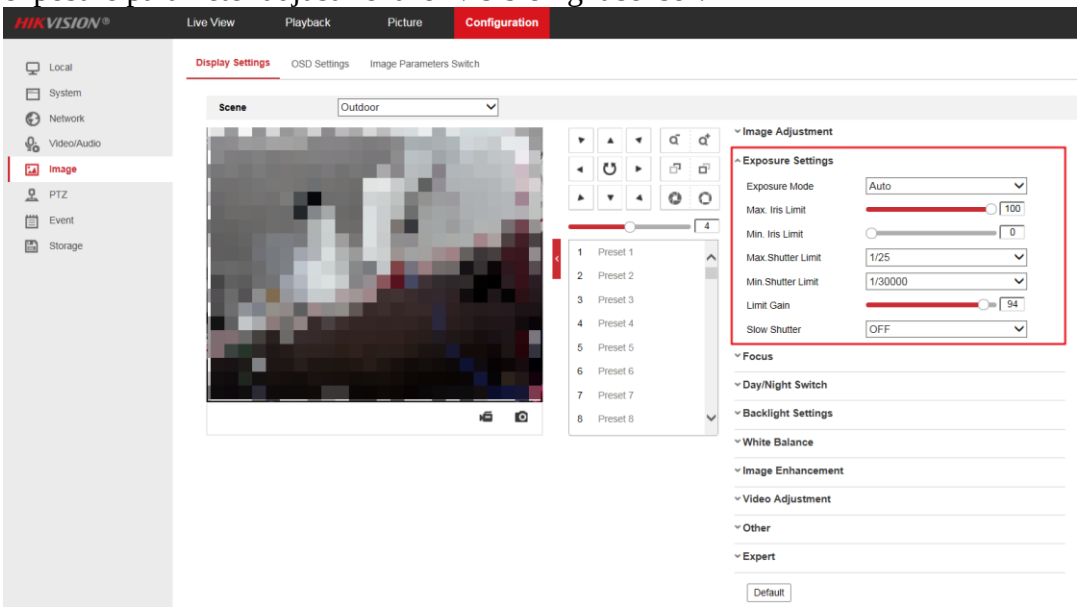
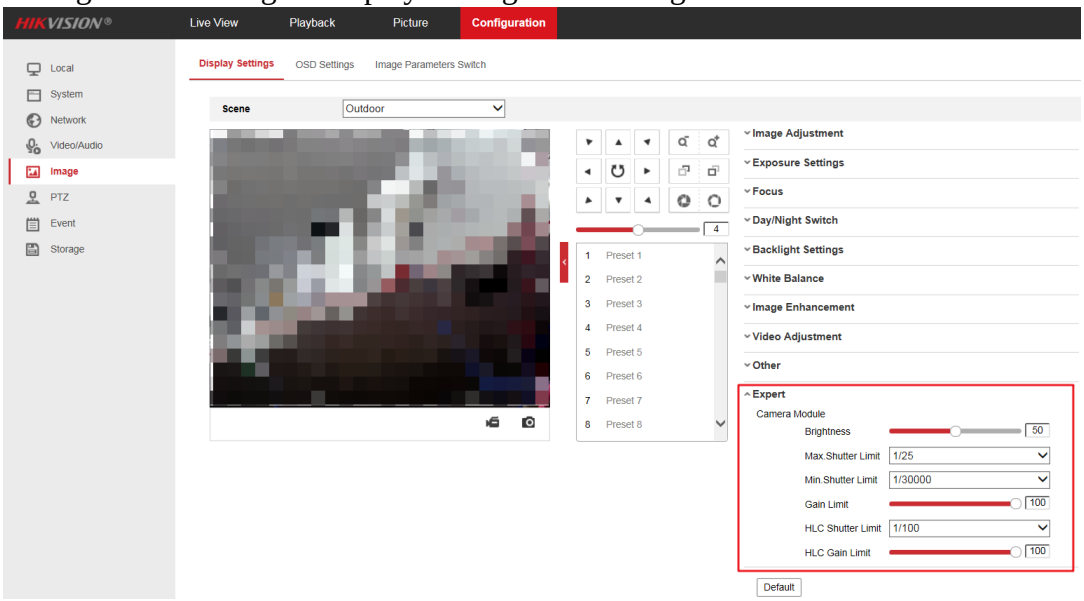
| Title: | How to Configure Image Export Mode | Version: | v1.0 | Date: | 12/23/2019 |
|---|---|---|---|---|---|
| Product: | DarkFighter X PTZ Dome Cameras | | | Page: | 1 of 6 |

# How to Configure Image Expert Mode

The DarkFighter X PTZ Dome Camera has two sensors, one of them is primary perception of color information, and the other one is primary perception of brightness details. Visible light and infrared light are perceived at the same time, and color information and brightness details do not interfere with each other. Here is the interface of exposure parameter adjustment for visible light sensor:




In V5.6.18, the Expert Mode has been added, which means opening another sensor on the web interface, which is the interface of the image parameter adjustment for the infrared sensor. And it is convenient to obtain better image effects and cope with different monitoring scenes. The way to enter the web interface is Configuration->Image->Display Settings. The configuration interface is shown below：





No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com

The advantage of DarkFighter is full-color imaging in low illuminance, so we choose to use the color mode to demonstrate the effect in a low illuminance environment.

# 1. Function Display

## 1）Brightness

The software adjusts the overall brightness of the image by adjusting the exposure time and gain value of the infrared channel. As can be seen from the figure below, the larger the image brightness value is set, the brighter the picture shows, but at the same time the more noise will appear. On the contrary, the smaller the image brightness value is set, the darker the picture shows and the less noise.


Brightness 0


Bright 50


Brightness 100

## 2）Max.Shutter Limit

The larger the maximum shutter limit is, the longer the exposure time is, which is suitable for monitoring when the illumination is low or the light is insufficient. On the contrary, the smaller the maximum shutter limit is, the shorter the exposure time is, and the lower the brightness of the picture will be. It can be clearly seen from the figure below that in a scene where the visible light is almost 0 Lux, the shorter the exposure time of the infrared channel is, the lower the brightness of the picture will be.


Max.Shutter Limit 1/25


Max.Shutter Limit 1/425


Max.Shutter Limit 1/1250

## 3）Min.Shutter Limit

Min.Shutter Limit time can be configured according to the actual needs of customers. It is recommended to keep the default value.

## 4）Gain Limit

Amplify the signal from the image sensor to a standard video amplifier, the amount of amplification is the gain, and automatically adjust the gain amplitude according to the signal level. The advantage of the gain is to increase the dynamic range of the camera, but the disadvantage is to amplify the noise at the same time. As can

be seen from the figure below, the larger the gain value of the infrared circuit is, the higher the brightness of the image will be, and the more noise appears. After the noise reduction function is on, the phenomenon that appears is the detail and sharpness of the picture will be lower.


Gain 0

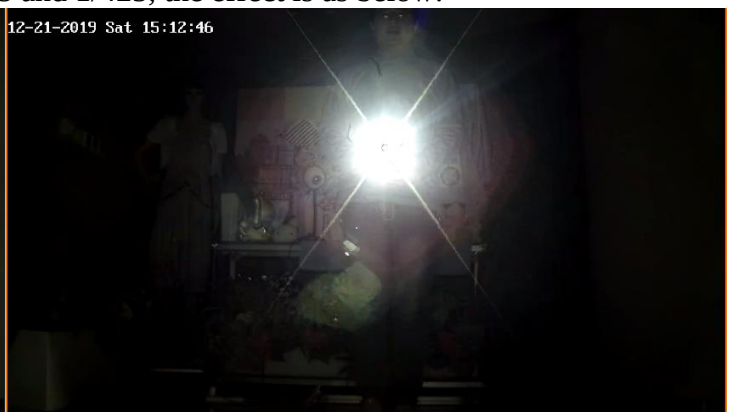

Gain 50


Gain 100

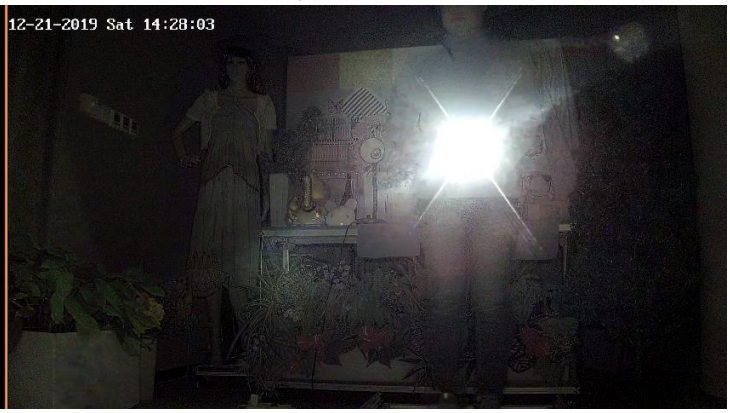
## 5）HLC Shutter and Gain Limit

HLC Shutter Limit is mainly used for road monitoring scenes at night, and it cooperates with the maximum shutter limit. When detecting a strong light source and the HLC function on, the software will automatically transfer HLC Shutter and HLC Gain. When the strong light source disappears, the software will automatically transfer Max. Shutter Limit and Gain.

When HLC gain limit is 0, and HLC shutter limit is 1/25 and 1/425, the effect is as below:


When HLC Shutter Limit is 1/1250，and HLC Gain Limit is between 0 to 100, the effect is as below:

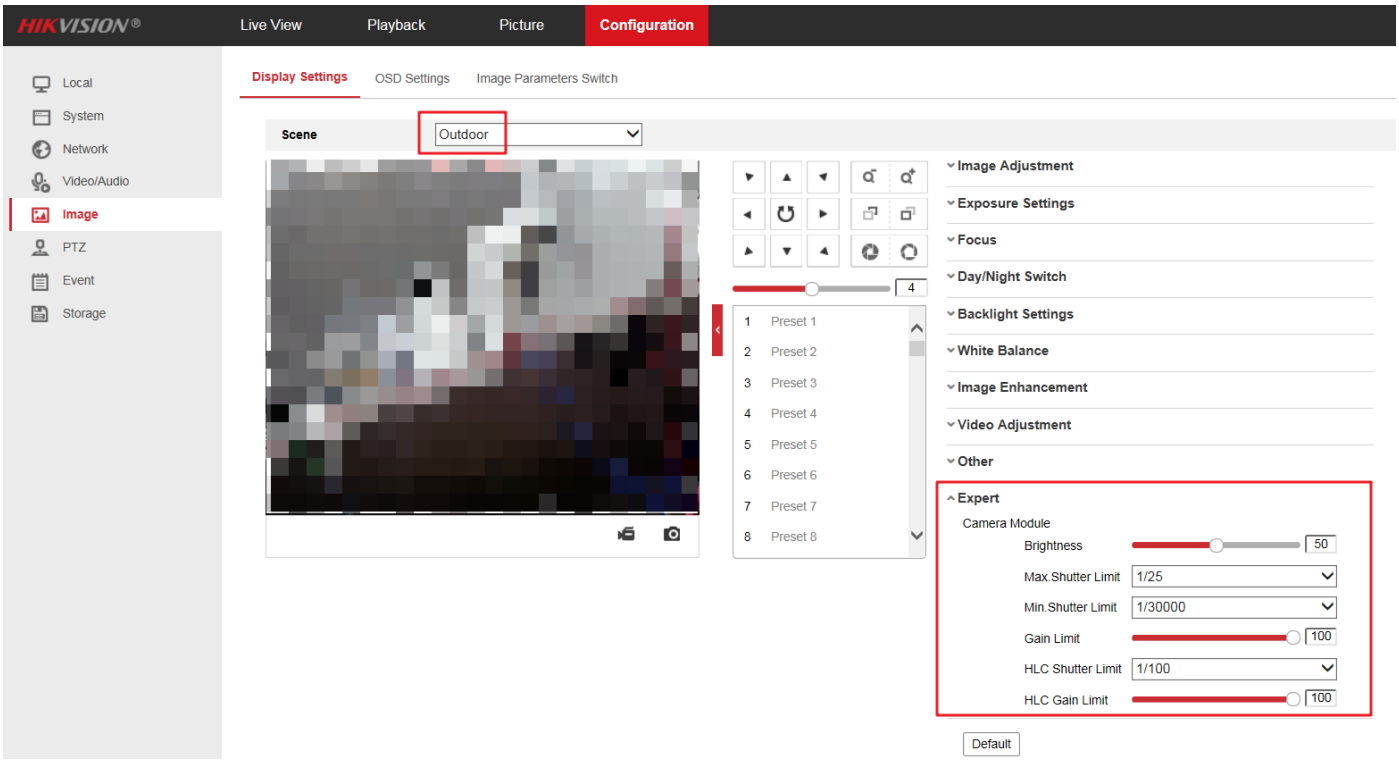

When the Gain is 50，and Shutter Limit is 1/25 and 1/425 ,the effect is as below. From the following picture we can easily recognize that white licenses under black letters are clearer to be seen comparing with other subjects in the background.


No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com


## 2. Scene Selection

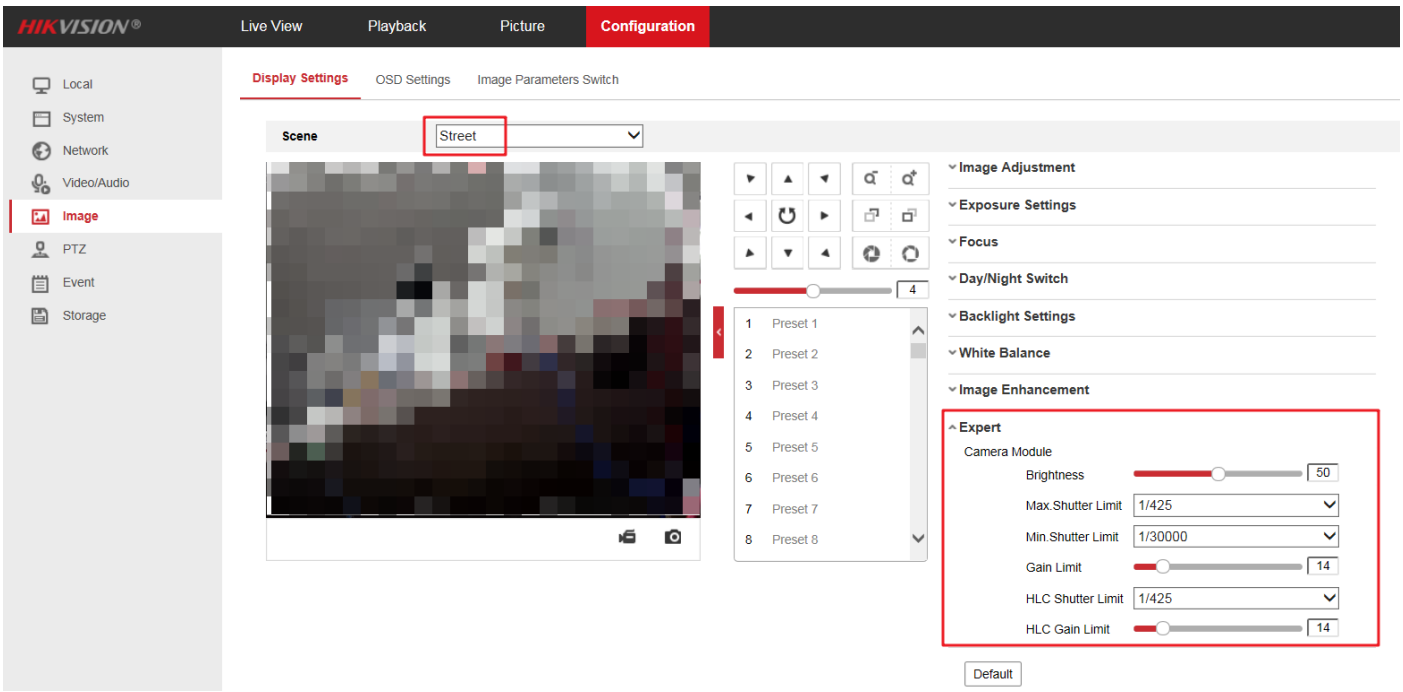
As for the variety of scene modes of PTZ Dome Camera, Outdoor Mode and Street Mode are most frequently used, and the default mode is Outdoor Mode。

1）In the Outdoor Mode, Max. Shutter Limit is set as 1/25，and the Gain is 100，HLC Shutter Limit is 1/100，HLC Gain is 100，which is suitable for most of the surveillance cases.

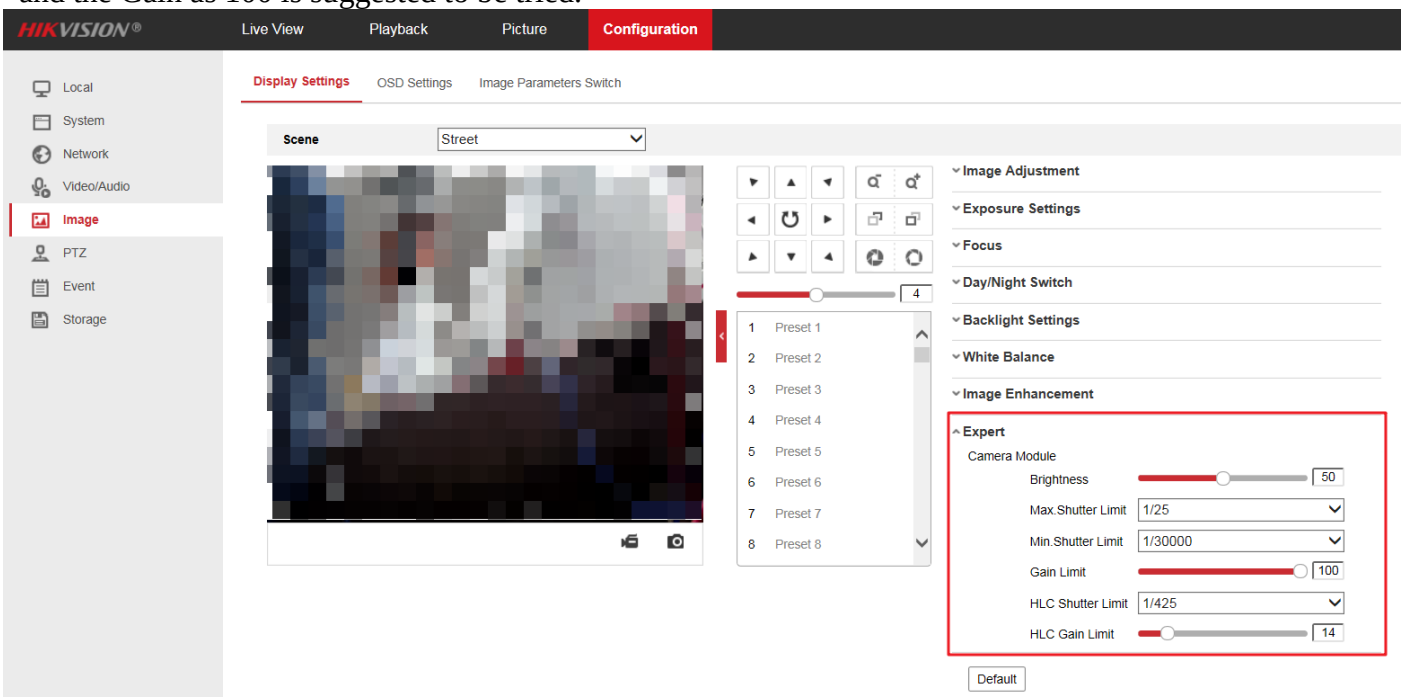



2）In the Street Mode, Max. Shutter Limit is set as 1/425, and the Gain is 14，HLC Shutter Limit is 1/425，HLC Gain is 14, which is suitable for crossroads and key traffic locations where vehicles move fast.


No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com




3）As for the cases that meet both the lowlight surveillance and strong light vehicle pass e.g. rural roads，it is recommended to slightly rearrange the parameters in the Street Mode. To set the Max. Shutter Limit as 1/25，and the Gain as 100 is suggested to be tried.





No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com

## 3. Available Model

| Supported Product List (DarkFighter X Series V5.6.18 above) | |
|---|---|
| **Product Category** | **Model Number** |
| DarkFighter X Series | DS-2DF8225IH-AEL(STD)(D)(Sample) |
| DarkFighter X Series | DS-2DF8225IH-AEL(NEU)(D)(Sample) |
| DarkFighter X Series | DS-2DF8225IH-AELW(STD)(D)(Sample) |
| DarkFighter X Series | DS-2DF8225IH-AELW(NEU)(D)(Sample) |
| DarkFighter X Series | DS-2DF8225I5H-AELW(STD)(D)(Sample) |
| DarkFighter X Series | DS-2DF8225I5H-AELW(NEU)(D)(Sample) |
| DarkFighter X Series | DS-2DF8225I5H-AEL(STD)(D)(Sample) |
| DarkFighter X Series | DS-2DF8225I5H-AEL(NEU)(D)(Sample) |
| DarkFighter X Series | DS-2DF9C245IH-DLW(STD) |
| DarkFighter X Series | DS-2DF9C435IH-DLW(STD) |
| DarkFighter X Series | DS-2DF9C435IH-DLW(NEU) |
| DarkFighter X Series | DS-2DF9C245IH-DLW(NEU) |

***Note:***

1. Configuration is recommended to be set with the guidance of a professional support staff.
2. HLC Shutter Limit and Gain Limit will not functionally work unless HLC function is set as enabled。
3. There is no one parameter that can be adapted to all cases. It is highly need to adjust the parameters (e.g. exposure time, gain, etc.) with the specific scene analysis to finally find out the settings that is most suitable for the present scene.
4. This function does not do multi-language translation currently, it is displayed in English.

**First Choice for Security Professionals**

***HIKVISION*** **Technical Support**


No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com