Camera

Introduction

You can configure the relevant parameters for the device's camera.

Privacy Protection

After enabling it, the camera privacy cover will automatically close when not in a meeting or without camera control.

Configure via Device Interface

1. On the MeetingBoard home page, go to **More** > **Settings** > **Device Settings** > **Camera** (default password: 0000).
2. Enable or disable the **Privacy Protection** feature.
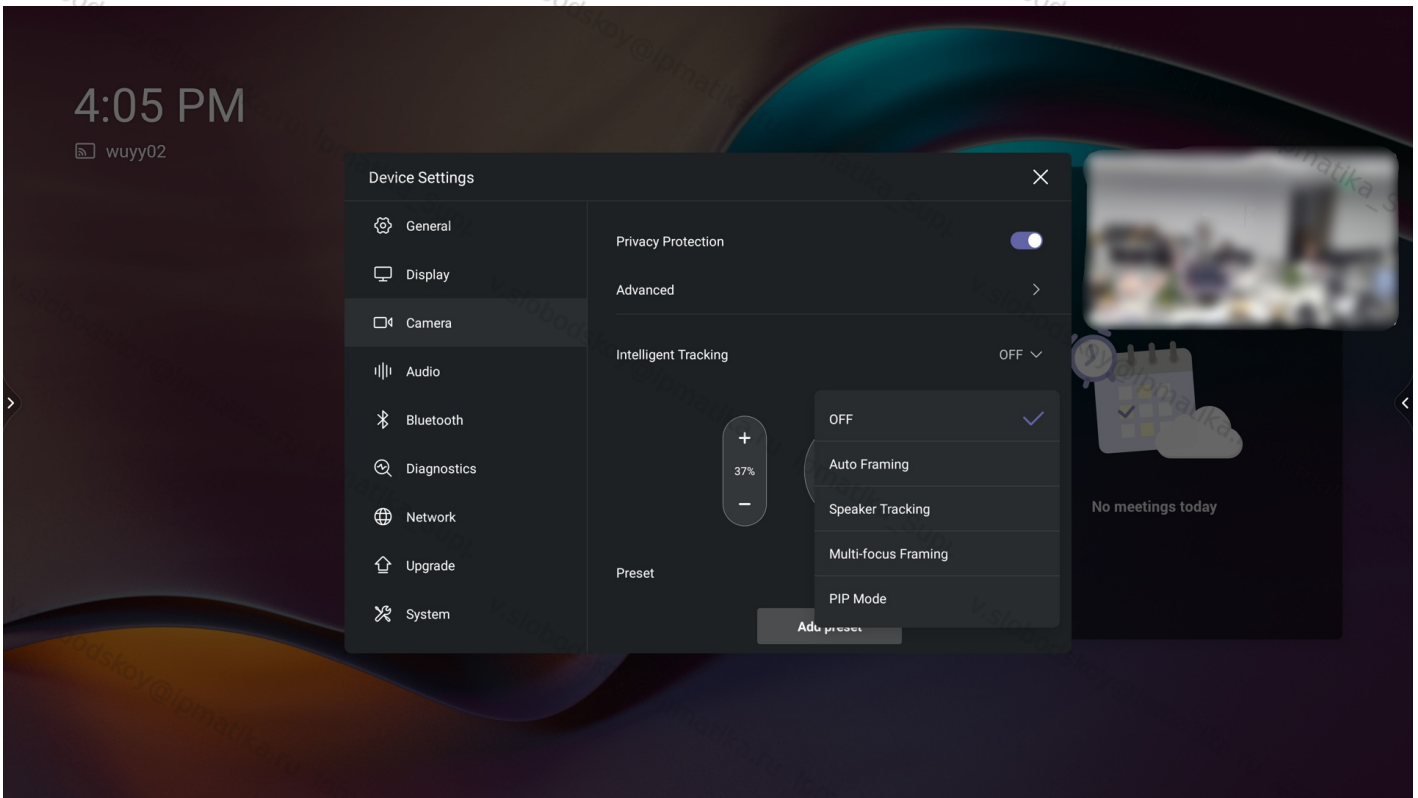
Configure via Web User Interface

1. Go to **System** > **Camera** in the web user interface.
2. Enable or disable the **Privacy Protection** feature.

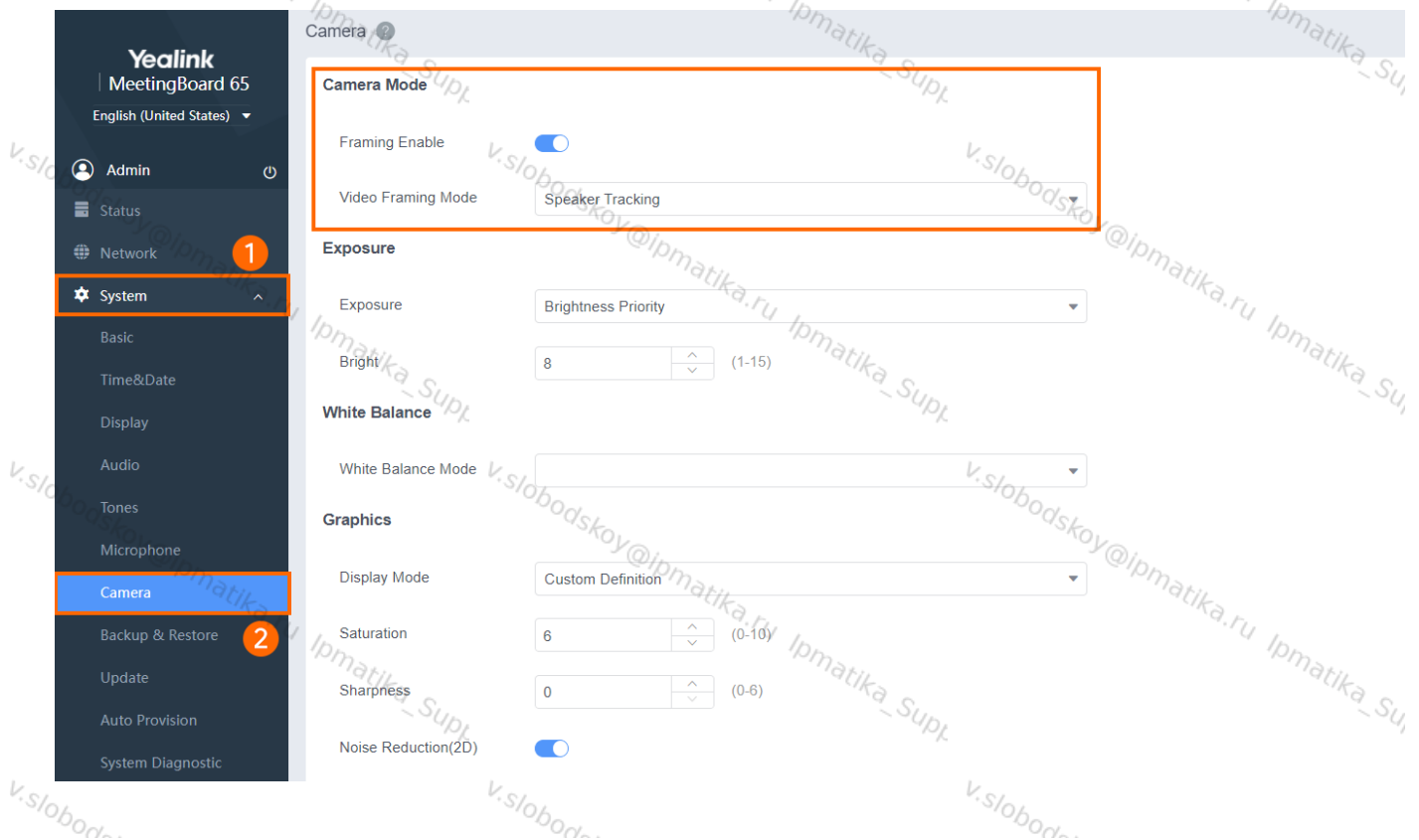| Parameter	Description
Privacy Protection	After enabling it, the camera privacy cover will automatically close when not in a meeting or without camera control.

Camera Mode

Configure via Device Interface

1. On the MeetingBoard home page, go to **More** > **Settings** > **Device Settings** > **Camera** (default password: 0000) > **Intelligent Tracking**.
2. Configure the **Camera Mode**.

Configure via Web User Interface

1. Go to **System** > **Camera** in the web user interface.

2. Configure the **Camera Mode**.

Parameter	Description
Framing Enable	Enable or disable the Intelligent Tracking feature on the system. The camera cannot be adjusted manually in the Intelligent Tracking mode.
Intelligent Tracking	Configure the Intelligent Tracking. - **Auto Framing**: With real-time face detection and position tracking, the Auto Framing feature can automatically adjust the camera according to the number and the position of the participants, covering every participant in the conference. - **Speaker Tracking**: Based on the Auto Framing feature, this feature can automatically detect the speaking participant and zoom in on his video image, providing an optimal close-up of the speaker. When two people speak in a meeting, the camera can focus on them simultaneously. - **Multi-focus Framing**: This feature is applicable to horizontal meeting rooms and supports up to six split-screen images. When the split-screen image is more than six, the meeting image will switch to Auto Framing to display all participants. - **PIP Mode**: It can realize the superimposed display of the speaker's close-up and the conference room's panoramic picture. The main window shows the view in the speaker tracking mode, and the small window shows the Auto Framing mode. When no one speaks, the window returns to the panoramic view.
Tracking Speed	Configure the camera switching speed. - Real-Time - Quick - Slow - Normal ⓘ **NOTE** It is available when the **Intelligent Tracking** is set to **Auto Framing** or **Speaker Tracking**.
Talkers Tracking	Enable the Talkers Tracking feature. ⓘ **NOTE** It is available when the **Intelligent Tracking** is set to **Speaker Tracking**.
Talkers Tracking Timer	If the tracking speed is set to 5 seconds, when two members (A and B) speak in a meeting, the camera will simultaneously focus on both. If A stops speaking while B continues, this state will last about 5 seconds, and the camera will refocus on B. ⓘ **NOTE** It is available when the **Intelligent Tracking** is set to **Speaker Tracking**.

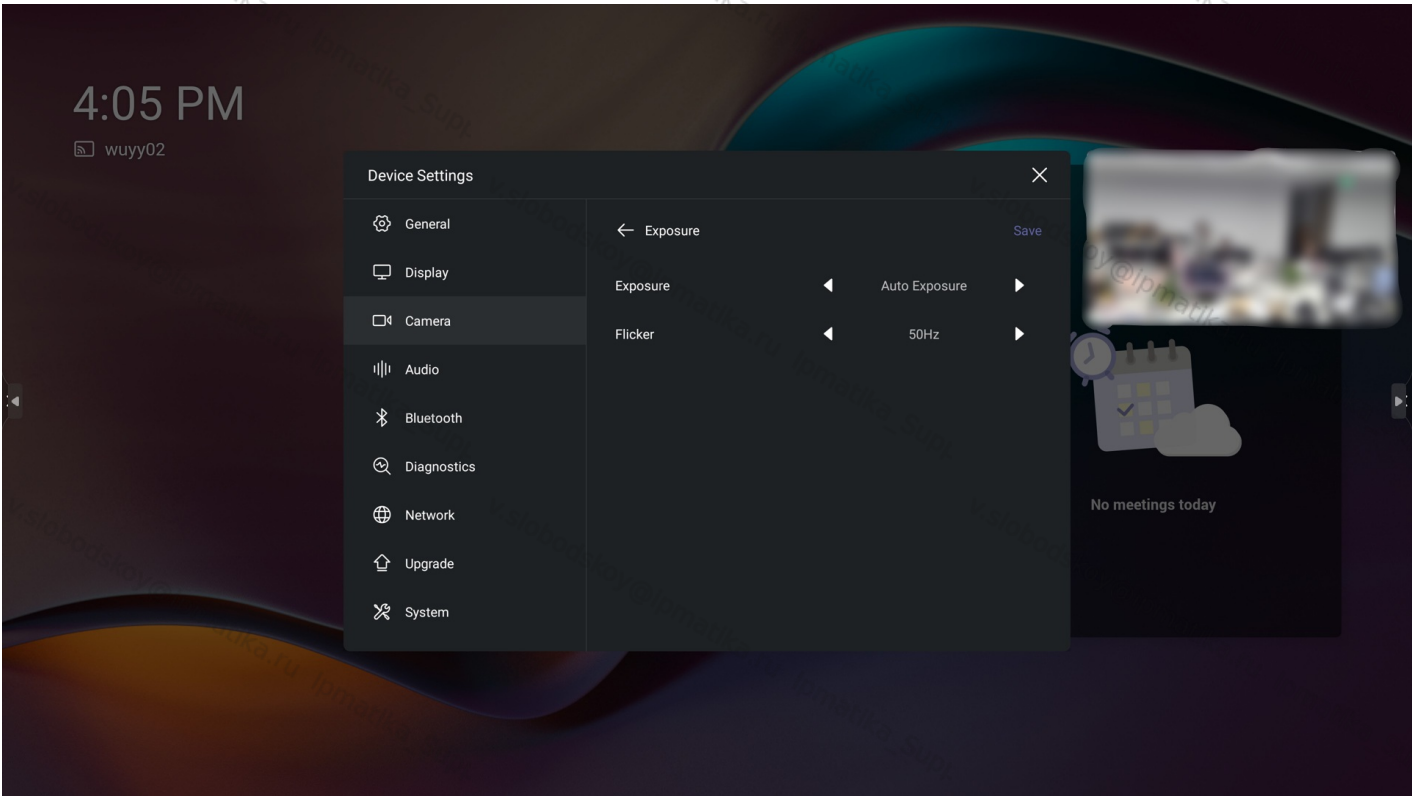|	
PIP Display	Set the screen displayed in the small floating window. The small floating window is set to display the panoramic view by default. - Panoramic First - Feature First ⓘ **NOTE** It is available when the **Intelligent Tracking** is set to **PiP Mode**.
PiP Mode Position	Sets the position where the small floating window in PiP Mode (default: upper-right corner). - Upper Right - Upper Left - Upper Left - Lower Left ⓘ **NOTE** It is available when the **Intelligent Tracking** is set to **PiP Mode**.

Auto Provisioning

Parameter	Description	Optional Value
features.framing_mode.enable	Enable or disable the Intelligent Tracking feature on the system.	**0**: Disabled **1**: Enabled
features.video_framing.mode	Configure the Intelligent Tracking mode.	**1**: Auto Framing **2**: Speaker Tracking

Exposure

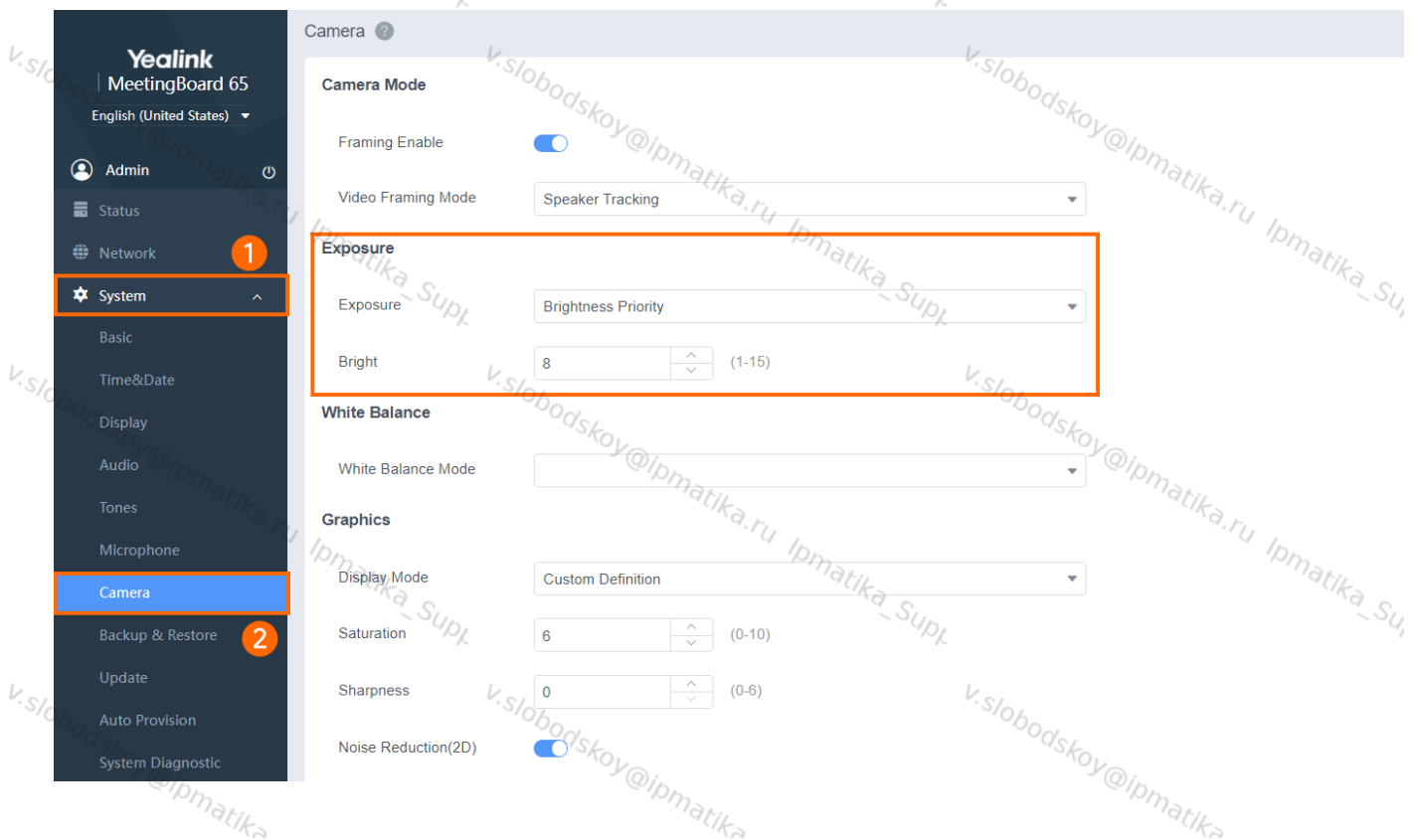Exposure mode refers to the way the camera controls the amount of exposure (incoming light).

Configure via Device Interface

1. On the MeetingBoard home page, go to **More** > **Settings** > **Device Settings** > **Camera** (default password: 0000) > **Advanced**.

2. Configure the value of the system exposure compensation.

Configure via Web User Interface

1. Go to **System** > **Camera** in the web user interface.

2. Configure the exposure mode in the **Exposure**.

Parameter	Description
Exposure	It configures the exposure mode. - **Auto Exposure**: Achieve a desired or target brightness level under different lighting conditions and scenes so that the captured video or image is neither too dark nor too bright. - **Manual Exposure** Exposure: Achieve a combined exposure of camera aperture value and shutter speed. - **Shutter Priority**: The shutter speed needs to be adjusted manually, and then the camera selects the appropriate aperture value. - **Brightness Priority**: Aperture priority lets the camera's automatic light metering system calculate the exposure value and then automatically determine the with value according to the You and the aperture value. - **Brightness Priority**: Brightness priority lets the camera's automatic light metering system calculate the exposure value and then automatically determine the shutter value according to the aperture value. We recommend setting it to **Auto Exposure**; the camera will automatically adjust the exposure.
Exposure Compensation	Exposure compensation is a method of exposure control that can be used to increase the exposure value and highlight the clarity of the image when the ambient light source is dim. ⓘ **NOTE** It is available when the **Exposure** is set to **Auto/Shutter Priority/Brightness Priority**.
Flicker	It configures the value of the camera flicker frequency. The indoor lights powered by a 50Hz or 60Hz power source may produce a flicker in the camera. You can adjust the camera flicker frequency according to your needs. The AC frequency is 50Hz, so choosing a 50Hz shoot light will avoid light flickering. The refresh rate of an ordinary TV display is 60Hz, so you can choose a 60Hz TV display to avoid flickering. ⓘ **NOTE** It is available when the **Exposure** is set to **Auto/Shutter Priority/Brightness Priority**.
Gain	It adjusts the value of the brightness gain. In the poor light, we recommend using a higher gain. ⓘ **NOTE** It is not available when the **Exposure** is set to **Brightness Priority**.
WDR(Wide Dynamic Range)	Set the Wide Dynamic Range. The value represents the compression degree of the dynamic range. Cameras with WDR technology can work perfectly both in the bright and the dark conditions and present clear images that balances different lighting, so that you can identify the details.

Metering	Configure the value of metering. ⓘ **NOTE** It is not available when the **Exposure** is set to **Manual Exposure**.
Aperture	Configure the value of aperture. ⓘ **NOTE** It is available when the **Exposure** is set to **Manual Exposure/Brightness Priority**.
Shutter	It configures the value of the shutter. You can not use the high-speed shutter in dark scenes. In this case, you need to increase the aperture value. ⓘ **NOTE** It is available when the **Exposure** is set to **Manual Exposure/Shutter Priority**.
Brightness	It configures the value of brightness. ⓘ **NOTE** It is available when the **Exposure** is set to **Brightness Priority**.

Auto Provisioning

Parameter	Description	Optional Value
camera.ae_mode	It configures the exposure mode.	**0**: Auto Exposure **1**: Manual Exposure **2**: Shutter Priority **4**: Brightness Priority
camera.ae_mode.auto_mode.flick	It configures the stroboscopic parameters in auto exposure mode.	**0**: 50hz **1**: 60hz **2**: off
camera.ae_mode.manual_mode.bright	It configures the gain parameters in manual exposure mode.	1-15

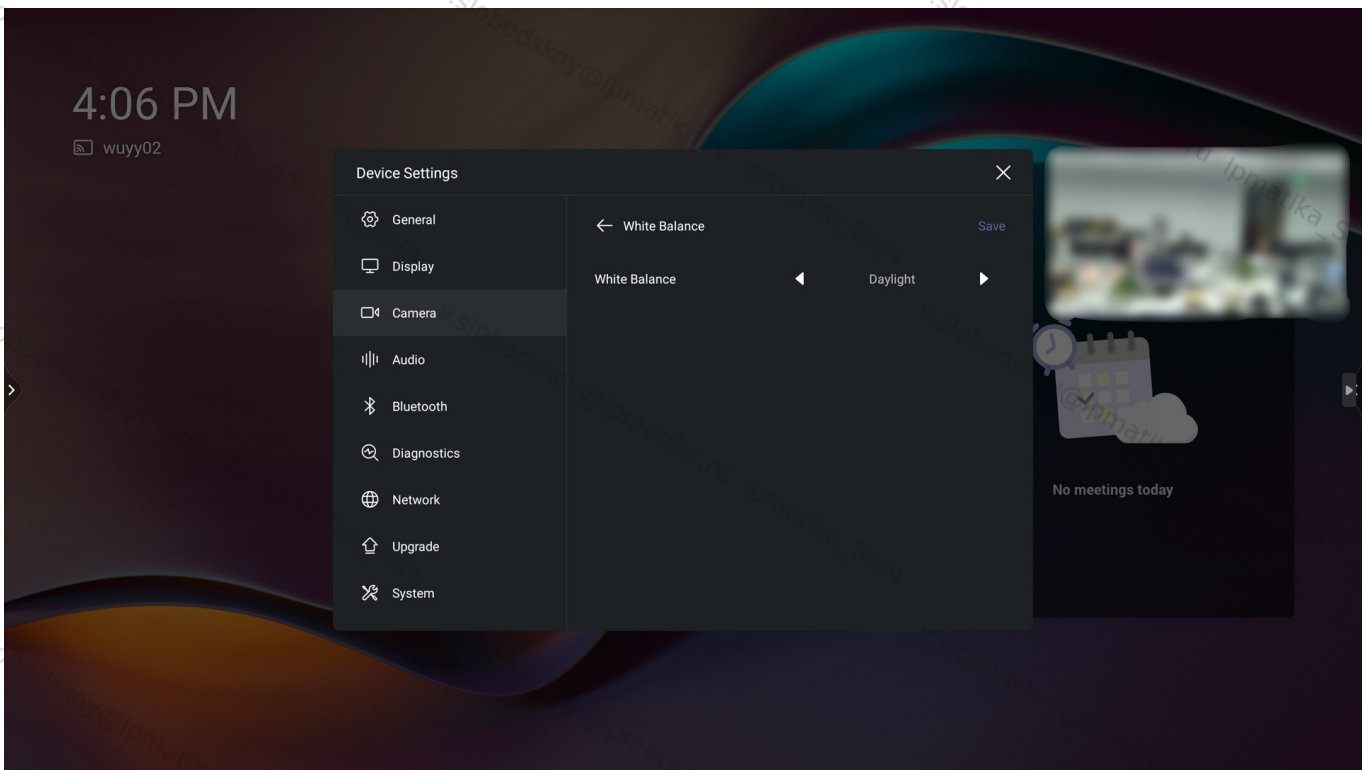| camera.ae_mode.manual_mode .shutter	It configures the shutter parameter in manual exposure mode.	0-1/60 1-1/90 2-1/100 3-1/125 4-1/180 5-1/250 6-1/350 7-1/500 8-1/725 9-1/1000 10-1/1500 11-1/2000 12-1/3000 13-1/4000 14-1/6000 15-1/10000
camera.ae_mode.shutter_mode. shutter	It configures the shutter parameter in shutter priority mode.	0-1/60 1-1/90 2-1/100 3-1/125 4-1/180 5-1/250 6-1/350 7-1/500 8-1/725 9-1/1000 10-1/1500 11-1/2000 12-1/3000 13-1/4000 14-1/6000 15-1/10000
camera.ae_mode.bright_mode. bright	It configures the brightness parameter in brightness priority mode.	1-15

White Balance

The white balance mode is mainly a camera mode set up to adapt to various scenes to make the color temperature of the image captured by the camera normal.

Configure via Device Interface

1. On the MeetingBoard home page, go to **More** > **Settings** > **Device Settings** > **Camera** (default password: 0000) **Advanced** > **White Balance.**
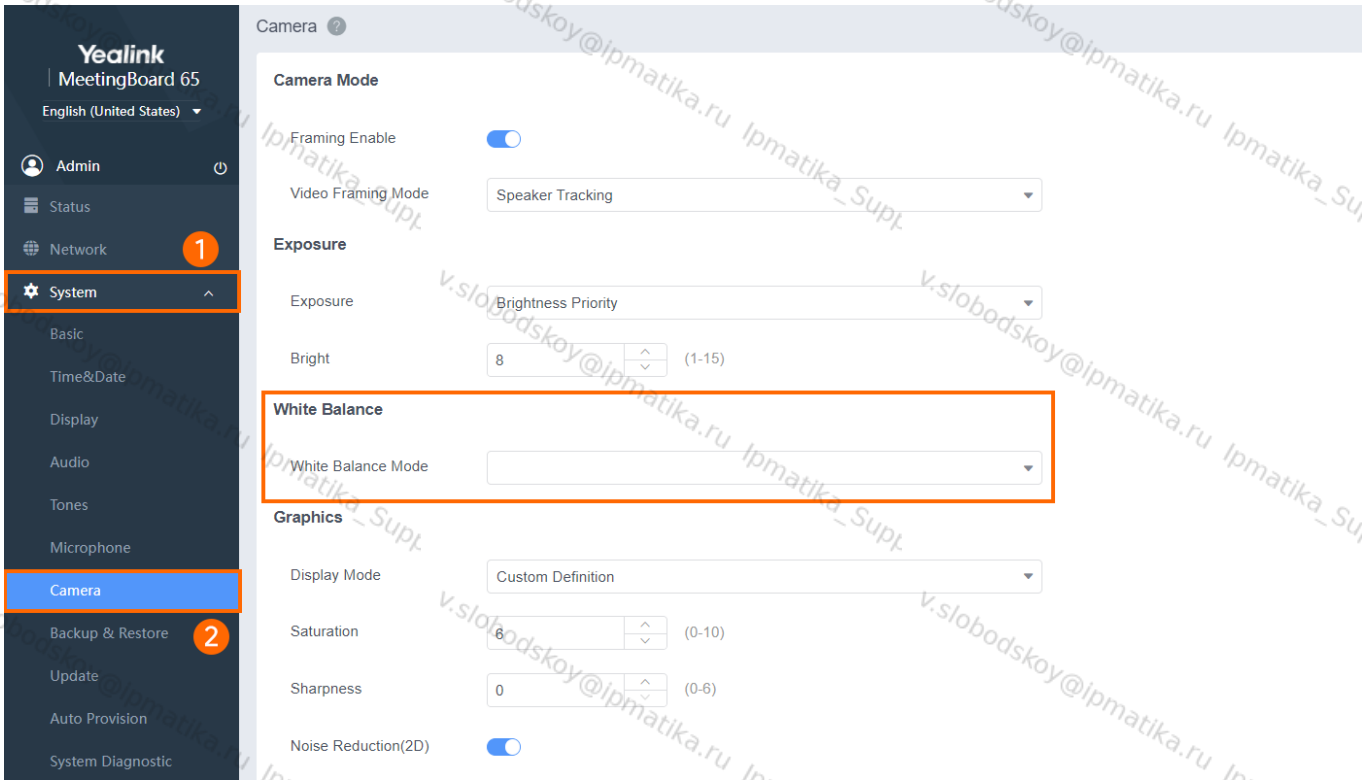
2. Configure the white balance of the MeetingBoard.

Configure via Web User Interface

1. Go to **System** > **Camera** in the web user interface.

2. Configure the white balance in the **White Balance**.

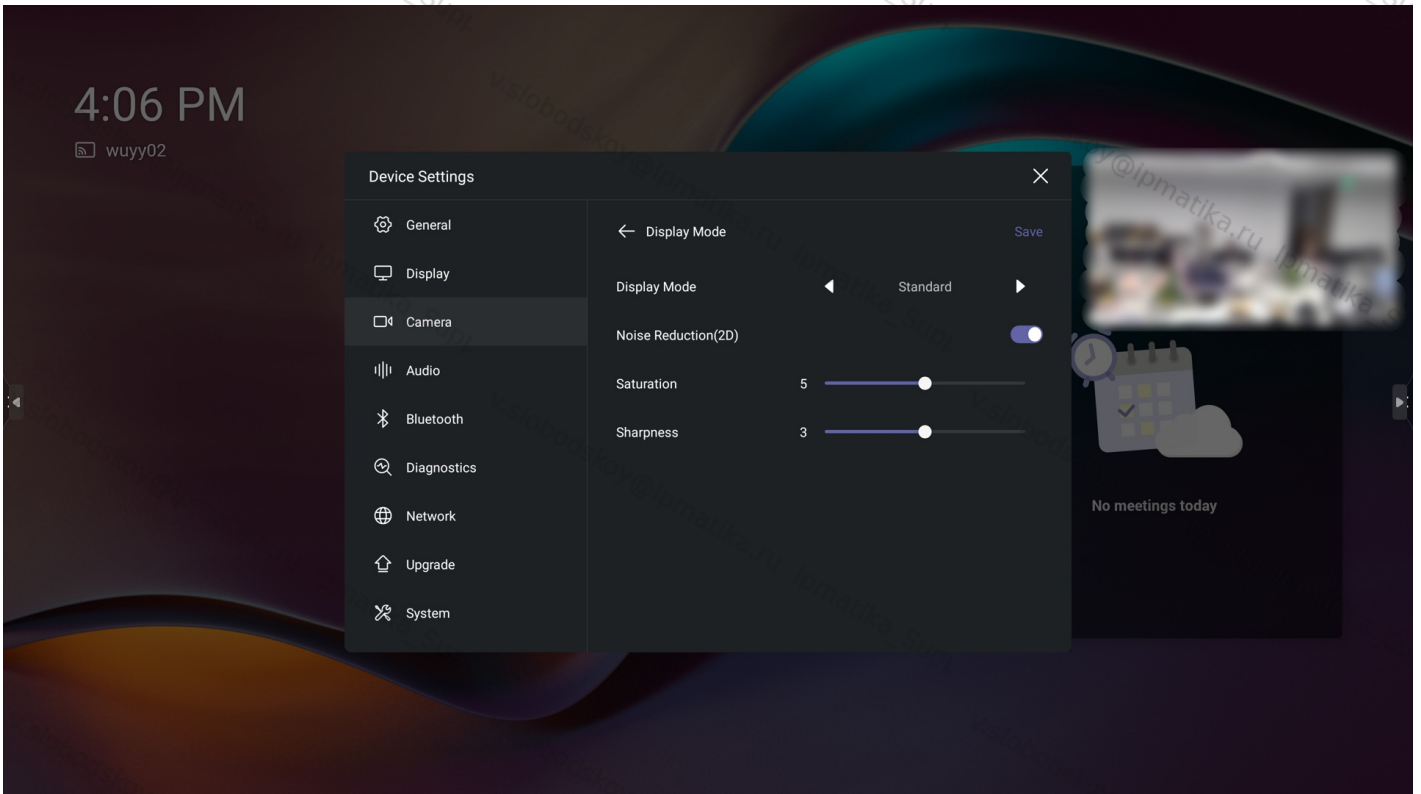| Parameter	Description
White Balance Mode	It configures the white balance mode of the camera. - Auto - Shade - Daylight - Incandescent - Fluorescent **Note**: In most cases, it is recommended to use **Auto**. It calculates the best white balance setting based on lighting conditions in the room.

Auto Provisioning

Parameter	Description	Optional Value
camera.white_balance	It configures the White Balance Mode.	6-Auto 7-Incandescent 8-Fluorescent 9-Daylight 10-Cloudy Daylight 11-Shade

Graphics

It configures parameters related to the graphics display.
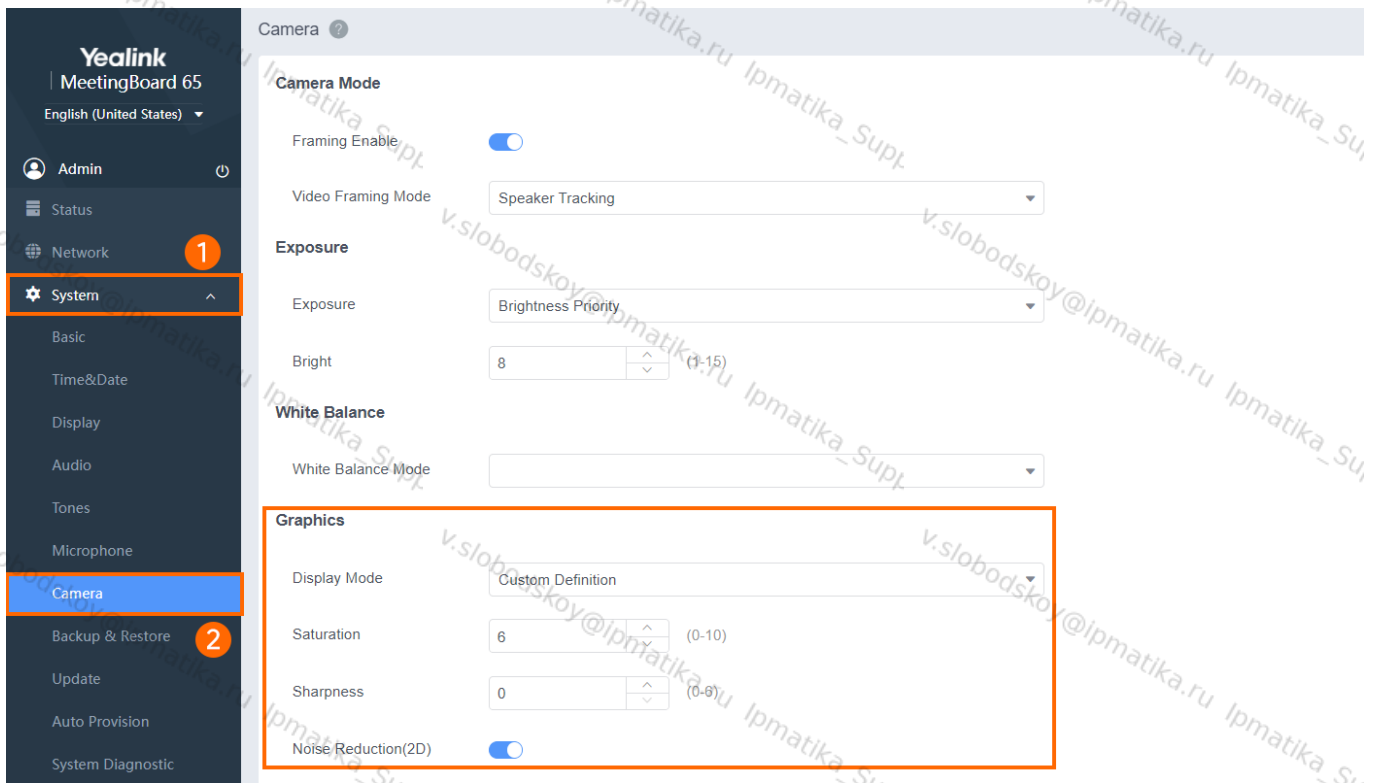
Configure via Device Interface

1. On the MeetingBoard home page, go to **More** > **Settings** > **Device Settings** > **Camera** (default password: 0000) > **Advanced** > **Display Mode.**

2. Configure the **Camera Mode**.

Configure via Web User Interface

1. Go to **System** > **Camera** in the web user interface.

2. Configure the graphics mode in the **Graphics**.

Parameter	Description
Display Mode	It configures the display mode of the camera image. - High Definition - Standard - Mild - Custom Definition: Custom image display mode, which requires configuration of saturation, sharpness, brightness, contrast, and 2D noise reduction.
Saturation	Configure the saturation of the camera image. The saturation refers to the maximum rendering power of color. The higher the saturation, the more vibrant the colors in the picture.
Sharpness	Configure the sharpness of the camera image. The sharpness is an indicator that reflects the definition of the image plane and the sharpness of the image edge. Increasing the sharpness will improve the definition of the image. However, if the sharpness is set too high, the image will look distorted and glaring.
Brightness	Configure the brightness of the camera image.
Contrast	Configure the contrast of the camera image.
2D (Noise Reduction)	Enable or disable the noise reduction (2D) mode of the camera.

Auto Provisioning

Parameter	Description	Optional Value

12

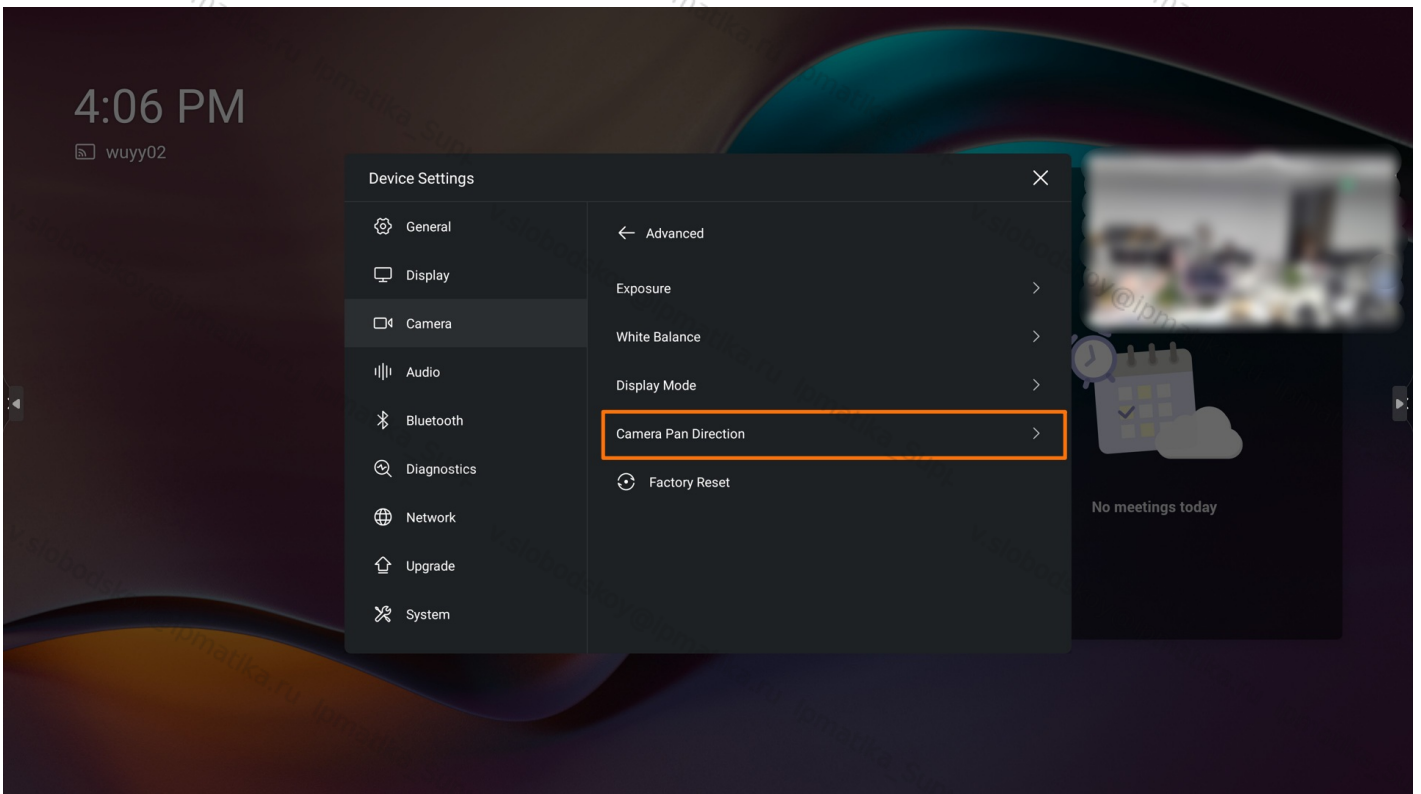| camera.displaymode	It configures the display mode of the camera image.	**0**: High Definition **1**: Standard **2**: Mild **3**: Custom

Other Settings

You can configure the relevant parameters the camera.

Camera Pan Direction
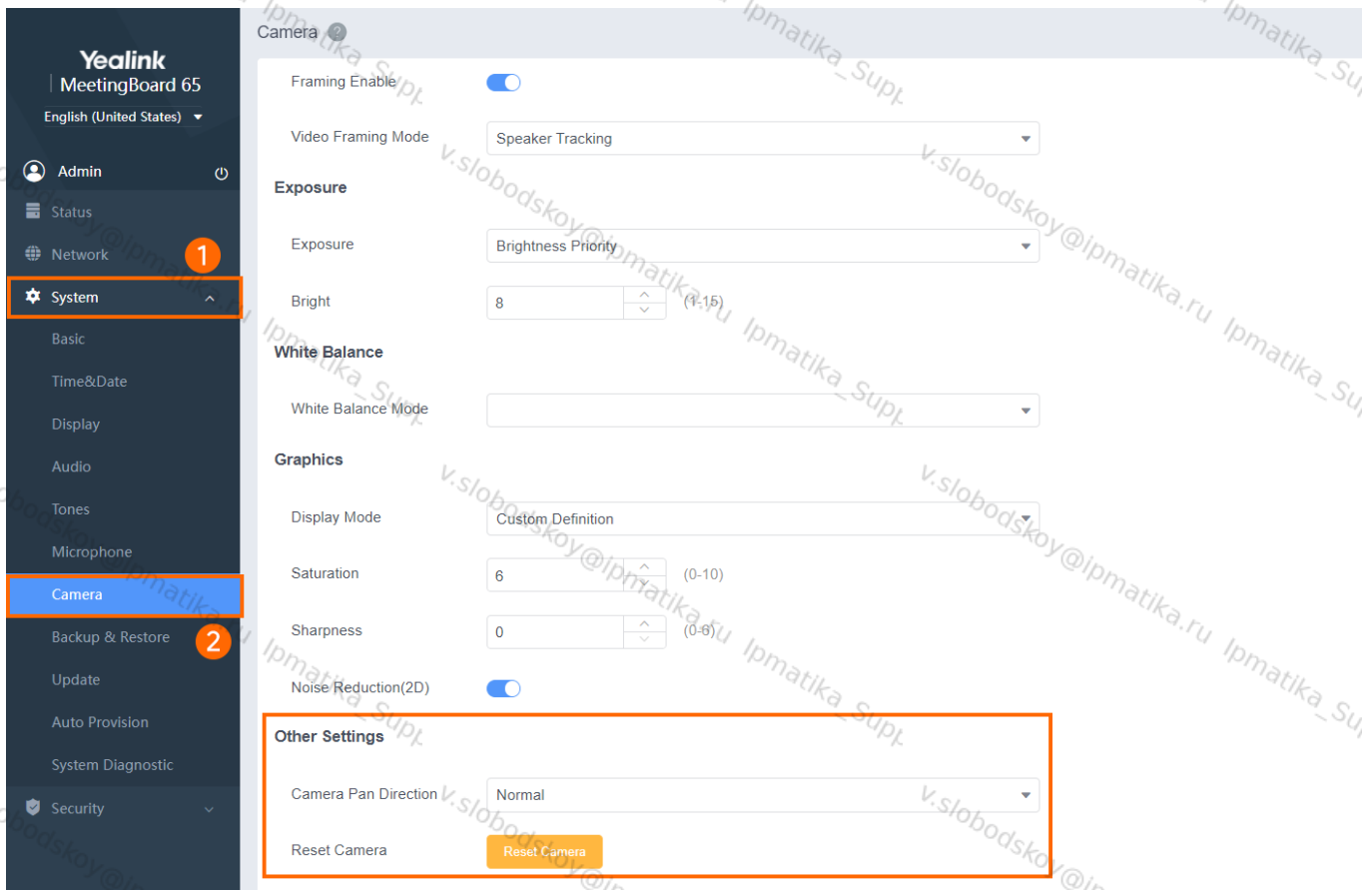
Configure via Device Interface

1. On the MeetingBoard home page, go to **More** > **Settings** > **Device Settings** > **Camera** (default password: 0000) > **Advanced.**

2. Configure the **Camera Pan Direction**.

Configure via Web User Interface

1. Go to **System** > **Camera** in the web user interface.

2. Configure in the **Other Settings**.

Parameter	Description
Camera Pan Direction	Configure the pan direction of the camera. - Normal - Reversed **Note**: When setting the camera to reverse, use the remote control or the CTP18 to adjust the camera to the right, but the camera will turn to the left.

Auto Provisioning

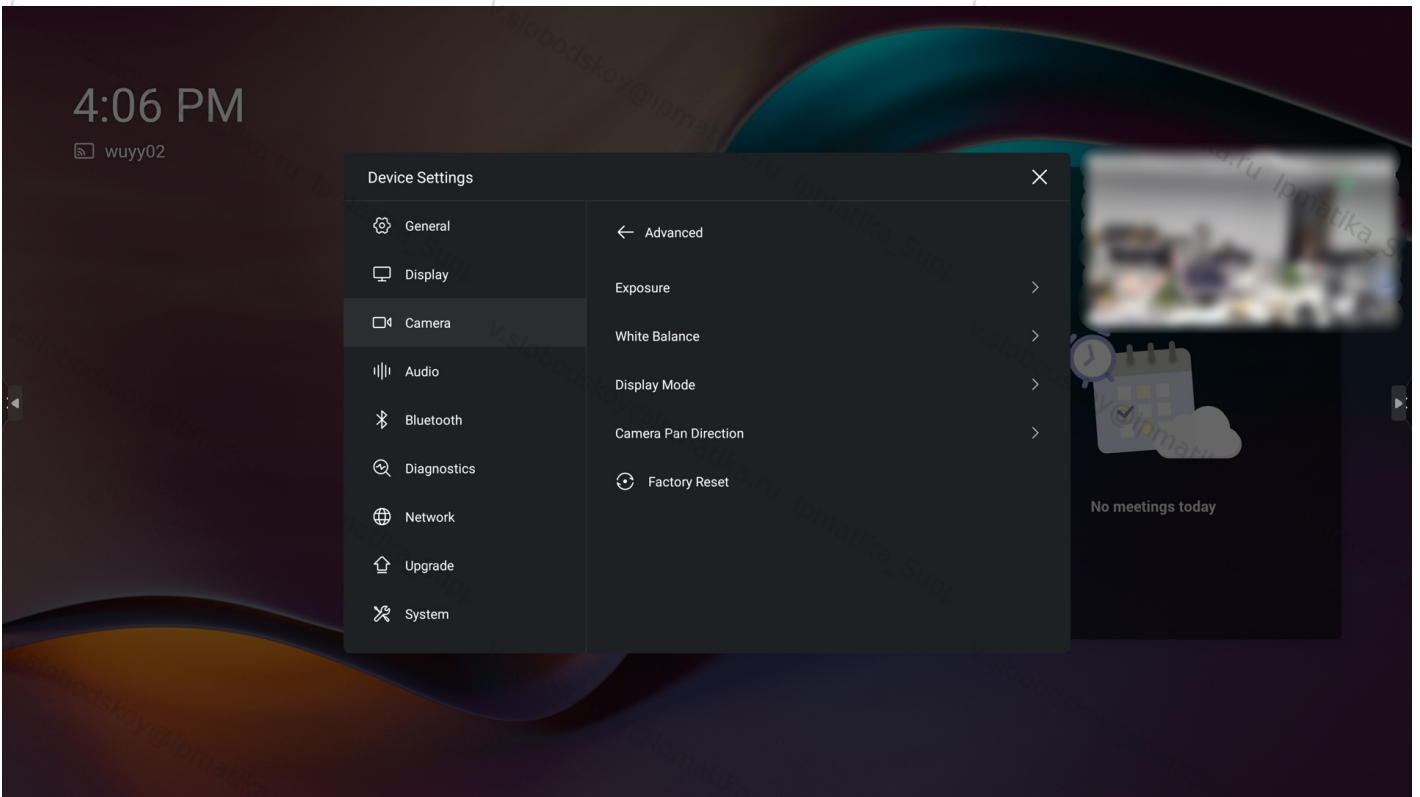| Parameter	Description	Optional Value
camera.pandirection	Configure the pan direction of the camera.	**0**: Normal **1**: Reversed

Reset Camera

Restore the camera's settings to factory settings.

ⓘ **NOTE**
After resetting, your camera settings will be restored to factory settings.

Configure via Device Interface

14

1. On the MeetingBoard home page, go to **More** > **Settings** > **Device Settings** > **Camera** (default password: 0000) > **Advanced.**

2. Configure the **Reset Camera**.

Configure via Web User Interface

1. Go to **System** > **Camera** in the web user interface.

2. Configure in the **Other Settings**.