How to set RS485 Serial Port Mode?

Answer:

The RS485 serial port is used for data exchange with the third-party device. Serial port settings on the camera should be consistent with that of the connected third-party device. Note: Only some certain models support this function. Please see the actual model for details.

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PTZ control

To control a PTZ camera through a third-party device, you need to set **Port Mode to PTZ Control.** By sending PELCO-D compliant PTZ control commands through the RS485 port, you can control the PTZ camera without using the PTZ control panel.

1. Click Setup > System > Ports & Devices, and then click the Serial Port tab.

| RS485_1 | | |
|----------------------|-----------------------|--------|
| Port Mode | PTZ Control | ~ |
| Baud Rate | 9600 | \sim |
| Data Bits | 8 | \sim |
| Stop Bits | 1 | \sim |
| Parity | None | \sim |
| Flow Control | None | \sim |
| PTZ Protocol | INTERNAL-PTZ | ~ |
| PTZ Mode | Built-in PTZ Priority | \sim |
| Address Code | 1 | |
| Enable Trans-Channel | | |

2. Select **PTZ Control** from the **Port Mode** drop-down list. The following table describes some major parameters.

| Parameter | Description |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Set the PTZ protocol that the channel supports. |
| PTZ Protocol | Note: You can set this parameter only when Port Mode is set to PTZ Control. When PTZ Protocol is set to INTERNAL-PTZ the camera can connect to the |
| | external PTZ without using the serial port (serial port parameters are grayed |

| Parameter | Description | | |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| | out). In this case, you only need to connect the zoom and focus interfaces of the camera to the lens, and then you can operate the PTZ like an internal PTZ. | | |
| | Built-in PTZ Priority: When this option is selected, the camera first tries to control the PTZ (for example, to zoom or focus) by itself instead of through the external PTZ. For operations that the camera cannot accomplish by itself, the camera uses the external PTZ. External PTZ Priority: The camera first tries to control the PTZ through the PTZ connected through the serial port. | | |
| PTZ Mode | Note: You can set this parameter only when Port Mode is set to PTZ Control. When INTERNAL-PTZ is selected, this parameter is always set to Built-in PTZ Priority, and it is unnecessary to connect the camera to an external PTZ through the serial port. Control through the external PTZ is not effective even when the camera has been connected to an external PTZ. Set this parameter as required. Make sure PTZ control related interfaces are correctly connected. | | |
| Address Code | Set the address code for the PTZ. Note: You can set this parameter only when Port Mode is set to PTZ Control and PTZ Protocol is not set to INTERNAL-PTZ. | | |

3. Click Save.

OSD

To display information from the third-party device on the OSD, you need to select OSD as the port mode.

The camera receives information from the third-party device through the RS485 serial port, translates the received information, and then displays it on the OSD.

NOTE: To enable the camera to correctly translate information received from the third-party device, make sure that the information sent by the third-party device through the serial port complies with the data format specified by our company. For more details, contact your dealer.

1. Click Setup > System > Ports & Devices, and then click the Serial Port tab.

| RS485_1 | | |
|----------------------|-------------------|---|
| Port Mode | OSD | ~ |
| | Enable OSD Report | |
| Baud Rate | 9600 | ~ |
| Data Bits | 8 | ~ |
| Stop Bits | 1 | ~ |
| Parity | None | ~ |
| Flow Control | None | ~ |
| Enable Trans-Channel | | |

2. Select **OSD** from the **Port Mode** drop-down list. Select **Enable OSD Report** (so OSD data will be uploaded to the platform).

3. Click Save.

Transparent channel

Use the RS485 serial port to achieve transparent data transmission with the third-party device. Transparent channel is mainly used to achieve transparent data transmission between two devices.

Note: Make sure that you have set Port Mode to Trans-Channel for your camera.

| RS485_1 | | |
|------------------------|---------------|---|
| Port Mode | Trans-Channel | ~ |
| Baud Rate | 9600 | ~ |
| Data Bits | 8 | ~ |
| Stop Bits | 1 | ~ |
| Parity | None | ~ |
| Flow Control | None | ~ |
| ✓ Enable Trans-Channel | | |
| Destination IP | 1.1.1.1 | |
| Destination Port | 1027 | |
| Source IP | 203.6.1.32 | |
| Source Port | 1025 | |

1. Click Setup > System > Ports & Devices, and then click the Serial Port tab.

2. Select Trans-Channel from the Port Mode drop-down list.

3. Select Enable for Trans-Channel.

4. Enter the destination IP address and port number (IP address and port number that the transparent channel connects to).

5. Click Save.

ONVIF Transparent Channel

Transmit data through the transparent channel (ONVIF) between the camera's RS485 port and a third-party device.

1. Click **Setup > System > Ports & Devices**, and then click the **Serial Port** tab.

| RS485_1 | | |
|----------------------|-------------------------|--|
| Port Mode | Trans-Channel via ON' 🗸 | |
| Baud Rate | 9600 🗸 | |
| Data Bits | 8 🗸 | |
| Stop Bits | 1 🗸 | |
| Parity | None 🗸 | |
| Flow Control | None 🗸 | |
| Enable Trans-Channel | | |

- 2. Set Port Mode to Select Trans-Channel via ONVIF.
- 3. Click Save.