Videology®
Industrial-Grade Cameras
an InTest Company

# 801-IP-678-xyzp

## 8MP Camera, IP, Sony IMX678

Revision B



## Videology Industrial-Grade Cameras

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*Every day. Every time.*

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# 2. Warning and Safeguards

**Read instructions before operating the camera**


- Please read/follow all instructions and read all warnings before operating the camera.
- Installation and servicing should only be done by Qualified Service and Installation Personnel.
- Installation shall be done in accordance with all local and national electrical and mechanical codes.
- Avoid mounting in direct sunlight.
- To reduce the risk of fire or electric shock, do not expose this appliance to rain, water or wet locations.
- If the camera is to be mounted outdoors a secondary waterproof enclosure should be used.

## 2.1 Precautions

- Do not put objects inside the unit. Make sure that no metal objects or flammable substances get inside the camera. It could cause fire, short-circuits or damage.
- Be careful when handling the unit.
- To prevent damage, do not drop the camera or subject it to strong shock or vibration.
- Install away from electric or magnetic fields.
- Protect the camera from humidity, dust and high temperatures.
- Be careful when installing it close to the ceiling, in a kitchen or boiler room, as the temperature may rise to high levels.
- Cleaning - Dirt can be removed from the cabinet only by wiping it with a soft cloth moistened with a soft detergent solution.
- Mounting Surface - The mounting surface material must be strong enough to secure the camera.
- Avoid viewing a very bright object (such as light fittings) during an extended period.

## 2.2 Care of the Unit

- Remove dust or dirt on the surface of the lens with a blower (commercially available).
- Avoid the use of volatile solvents such as thinners, alcohol, benzene and insecticides. They may damage the surface finish and/or impair the operation of the camera.
- Be careful not to spill water or other liquids on the unit.

## 2.3 Operating and Storage Location

- Consult the datasheet of the camera for temperature limits and guidance.
- Avoid damp or dusty places.
- Avoid places exposed to rain.
- Avoid places subject to strong vibration.
- Avoid places close to generators of powerful electromagnetic radiation such as radio or TV transmitters.

- If the product is to be put out of operation definitively, take it to a local recycling plant for disposal which is not harmful to the environment.

# 3. Document History

## Document History

| Revision | Issue Date | Reason |
|---|---|---|
| A | 12/10/2025 | Initial release |
| B | 1/9/2026 | Added UI changes, updated recording information |

# 4. Table of Contents

# List of Figures

# List of Tables

# 5. Introduction

This document will explain how to set up your 801-IP-678-xyzpq, an IP camera with the following highlighted features:

- 8 Megapixel, 30fps, Sony® STARVIS 2 IMX678 1/1.8 Sensor
- RTSP and WebRTC video streaming
    - 3 configurable streams
    - H.264 and MJPEG format support
- Fast Ethernet (also known as 10/100 Ethernet)
    - Full duplex communication
- SD card storage (optional)
    - Supports different storage sizes
- HTTPS and FTP server functionality
- Linux RISC-V architecture - Open-source processor and operating system
- Fully configurable via Videology's web interface and HTTPS API interface
- ONVIF protocol support

# 6. Configuration

## 6.1 Hardware

A multi-pin connector supplies both power and network connections. The package includes a breakout cable with a standard 12 V DC power connector and an RJ-45 network jack. Connect the cable to a 12VDC power source and a network that supports DHCP. Direct connection to a PC will not work. You will need either a router with a DHCP server or access to a local DHCP-enabled network through a switch.

## 6.2 Network Address

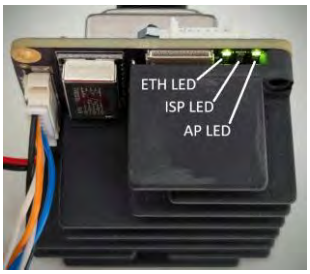



Figure 1 Indicator LEDs

Connect the camera to a DHCP-enabled network. A DHCP-enabled network automatically manages the IP addressing on the network. Power on the camera by connecting the 12 V DC supply. Once the green LED labeled 'ETH' on the back of the camera board lights up steadily, the camera will be available on the network.

To find the camera's IP address, you can use a network scanning tool. Alternatively, use ONVIF Device Manager (ODM) or another ONVIF-compatible management tool if the camera is connected to the same network. These tools automatically detect ONVIF devices and display their IP addresses in the device list. For additional assistance, please contact your IT department.

## 6.3 Web Interface

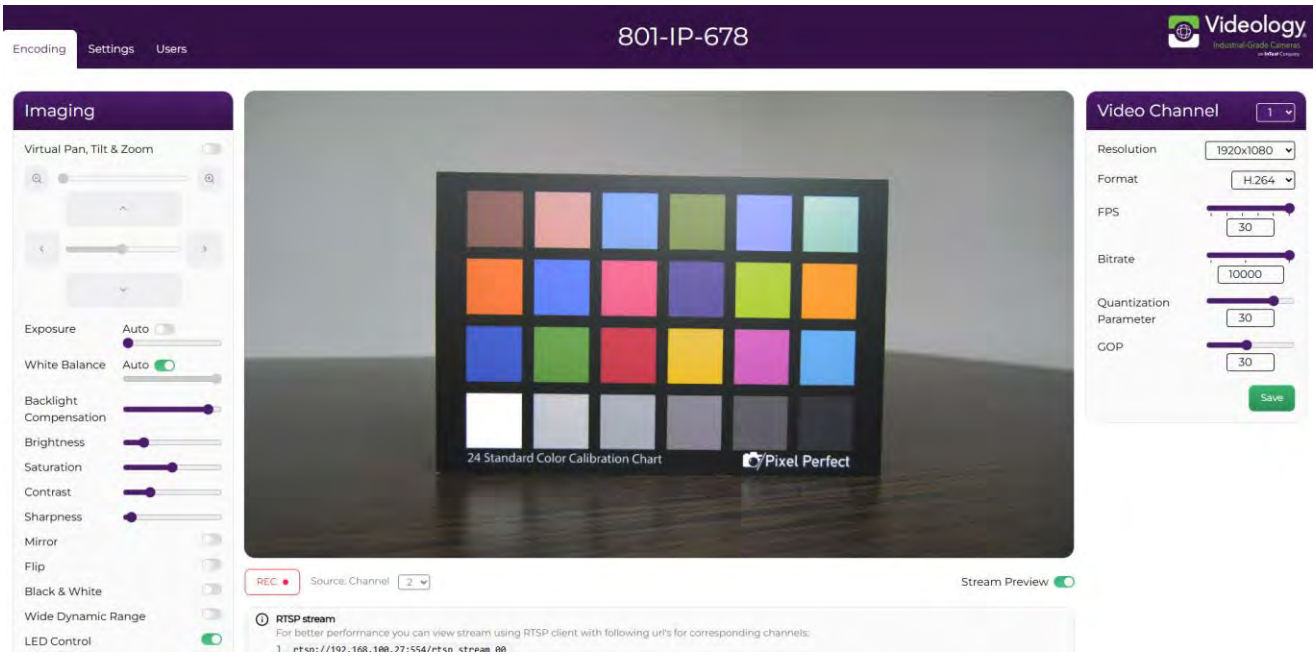



Figure 2 Web Interface

The web interface allows users to configure a wide range of system settings and functions, including image and encoding parameters, network configuration, date and time setup, firmware updates, user management, video streaming and recording, and SD card formatting.

For more information, please refer to section 7, where each feature and setting is explained in detail.

## 6.4 RTSP Video Stream

In addition to the WebRTC stream available through the web interface, the camera also supports RTSP streaming via third-party applications. A media player that supports RTSP streaming is required, such as the VLC media player or similar one.
Use the address with the camera's IP (in this example: 192.168.0.108) and the following suffix:

**rtsp://192.168.0.108:554/rtsp_stream_00**

The last two numbers after "stream_" determines which channel is displayed.

Channel 1: rtsp_stream_**00**
Channel 2: rtsp_stream_**01**
Channel 3: rtsp_stream_**02**

RTSP stream URLs are automatically generated for each channel and can be copied directly from the web interface. These URLs are located below the corresponding video stream.

## 6.5 VLC Media Player Example

VLC Media Player can be used to view the stream from the camera. It is an open-source program available for download from the Internet. The following steps explain how to view the camera stream in VLC.

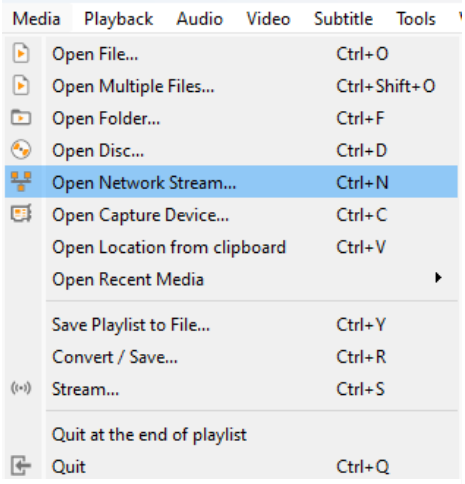



Figure 3 Media

**Media**
In VLC, open the ''Media'' menu and select "Open Network Stream…"

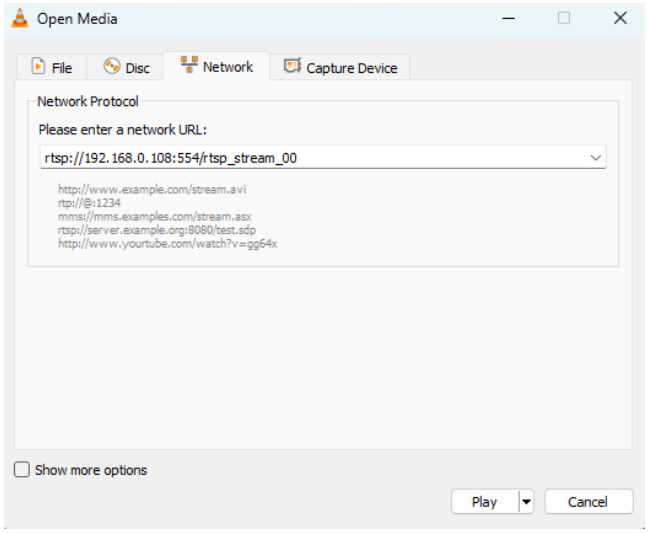



Figure 4 Network

**Open Media**
In the Network tab, enter the network URL of the camera. Use the format explained in section 6.4.

Format
**rtsp://IP-ADDRESS:554/rtsp_stream_00**

Example:
**rtsp://192.168.0.108:554/rtsp_stream_00**

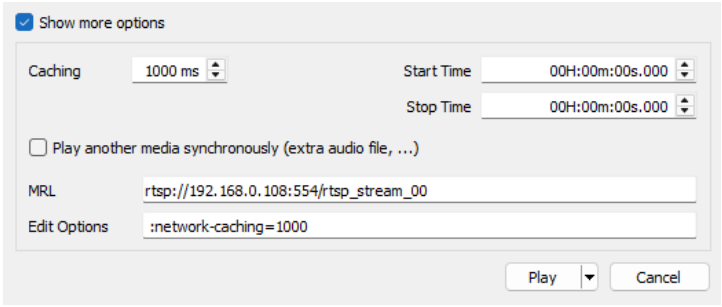



Figure 5 Show more options

**Show more options**
At the bottom of the Open Media window, check the 'Show more options' box. This will open an extended menu.

**Caching**
VLC stores a portion of the video stream in memory, to ensure smooth playback and reduce interruptions caused by instability. For the most stable playback, set it to 1000 ms. For low latency, use the lowest stable value; 200 ms is recommended. Values below 200 ms may cause playback errors.

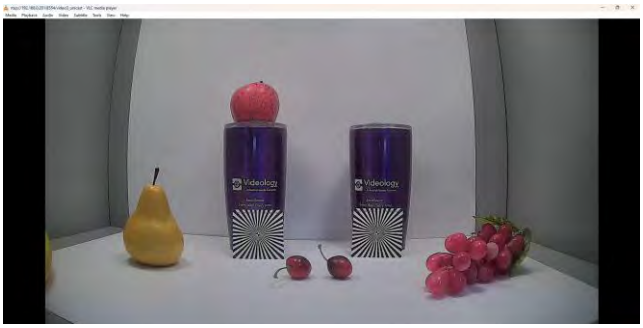


Figure 6 Caching

**Video stream**
When finished, press 'Play'. The video stream will open in VLC.

## 6.6 ONVIF protocol

By default, the camera includes an ONVIF administrator account with the following credentials:

**Username: admin**
**Password: admin**

It is strongly recommended to change the default password after the initial setup to ensure your system remains secure.

## 6.7 Device maintenance and interfaces

### 6.7.1 Recovery

This procedure is necessary in cases such as a power failure during a firmware update, which prevents the installation from being completed, or when software changes prevent the firmware from booting.

To reset the device to factory settings, connect the GPIO 23 pin to GND and keep it connected for 5 seconds immediately after turning the device on or restarting it.

This process overwrites the current firmware using either the SD card or the internal memory. The device first attempts to load the firmware from the SD card; if it is not found there, it will use the internal memory.

If you are using an SD card, first download the firmware archive and unzip it. Then, copy all extracted files to the root directory of the SD card. The archive can be downloaded from the official website https://www.videologyinc.com/.

### 6.7.2 LED Control

Briefly connect GPIO 21 to GND to switch the AP LED on or off. When the LED is on, it shows that the device is operational; when off, the LED stays dark.

### 6.7.3 Snapshot

For information on creating a snapshot, see section 9.3.

### 6.7.4 J200 connector

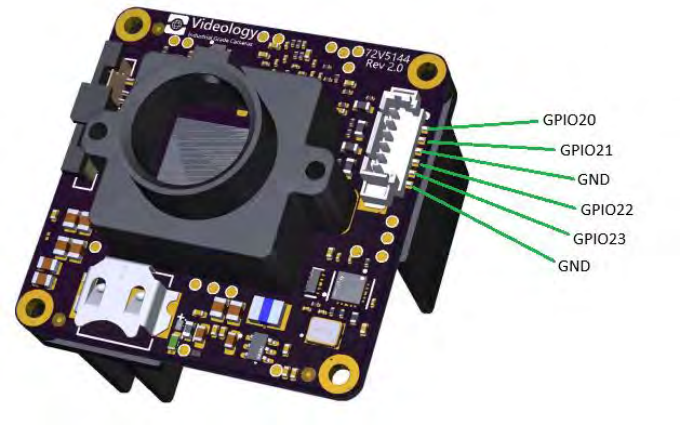



Figure 7 Pinout of connector J200

| Pin | Description |
|---|---|
| GPIO20 | - |
| GPIO21 | LED Control |
| GPIO22 | Snapshot |
| GPIO23 | Factory Reset |
| GND | Ground |

Table 1. Pinout of connector J200

⚠ Each GPIO pin has an internal pull-up resistor.

# 7. Web Interface

You can use the web interface to control various camera settings and view video streams.

## 7.1 Login


Figure 8 Login interface

Open a web browser and enter the IP address of the camera (e.g., 192.168.0.108).

Web browsers will display warnings about an insecure connection. These warnings do not affect the functionality of the system. Please select continue.

By default, the camera includes an administrator account with the following credentials:

**Username:** admin
**Password:** admin

It is strongly recommended to change the default password after the initial setup to ensure your system remains secure.

Access to the web interface and ONVIF services are provided using the same user accounts.

## 7.2 Encoding

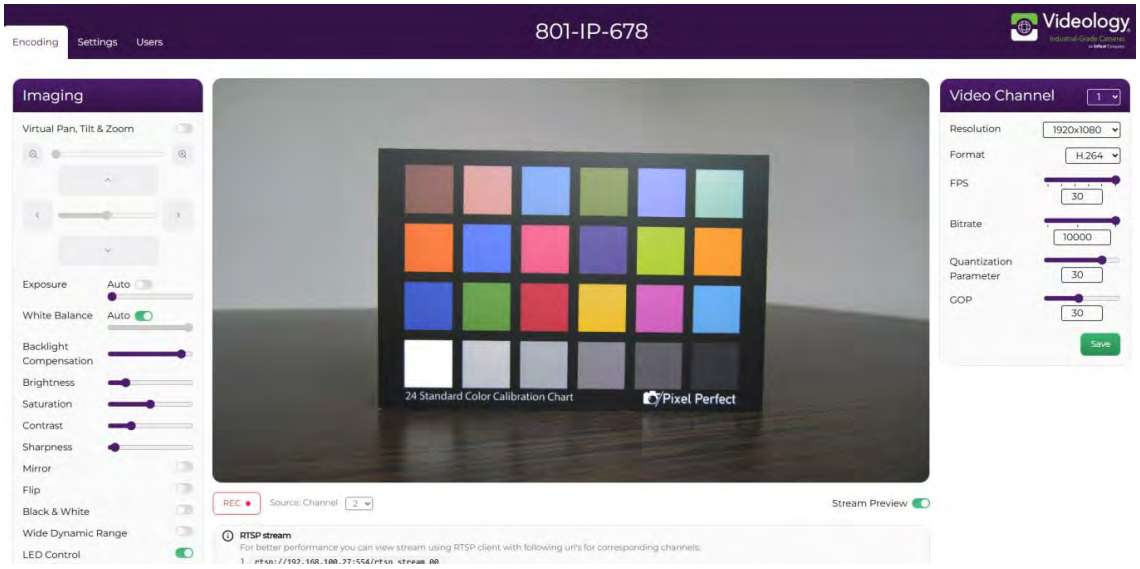



Figure 9 Web interface, Encoding

Once logged in, you can access the Encoding tab. This tab allows you to adjust image and video channel settings, as well as view the live broadcast. Use the tabs at the top of the page to navigate between sections.

### 7.2.1 Imaging Settings

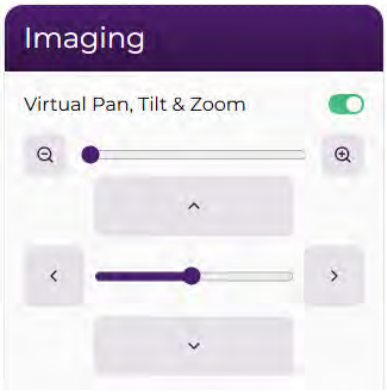



Figure 10 Virtual Pan, Tilt & Zoom interface

**Virtual Pan Tilt Zoom (VPTZ)**
There is a slider to disable this module, located next to its name.

Use single presses of the plus (+) and minus (–) buttons to zoom in and out. Adjust the slider between the buttons to control the zoom increment.

The arrow buttons allow you to pan and tilt the zoomed image. Use the speed slider between the arrows to adjust the movement speed.

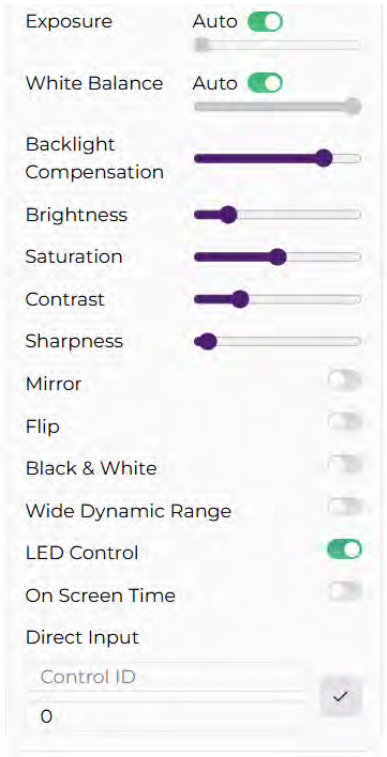



Figure 11 Configuration interface

**Exposure**
Adjusts the amount of light reaching the sensor. AUTO will continue to adjust for different lighting conditions.
**White Balance**
Adjusts the color tones to make sure whites appear neutral under different lighting conditions. AUTO will continue to adjust for different lighting conditions.
**Backlight Compensation**
Adjusts the exposure window to compensate for strong backlight in a scene. Lower values (slider moved to the left) cause the auto exposure algorithm to evaluate a larger portion of the frame. Higher values (slider moved to the right) restrict the exposure measurement to the central area of the frame.
**Brightness**
Brightens or darkens the image.
**Saturation**
Adjusts the intensity of the color.
**Contrast**
Darkens the dark areas of the image and lightens the light areas.
**Sharpness**
Adjusts the contrast between edges.
**Mirror**
Sets the image to a reverse view (horizontal).
**Flip**
Sets the image to an upside-down view (vertical).
**Black & White**
Sets the image to black & white.
**Wide Dynamic Range**
Increases the tonal range between light and dark areas of the image.
**LED Control**
When this option is enabled, the AP LED turns on to indicate that the device is operational. When disabled, the LED remains off.

**On Screen Time**
Enables the display of the current date and time on the video stream.
**Direct Input**
Allows direct entry of commands and settings. See Appendix 10 for the command list.

### 7.2.2 Encoding Settings

This page displays the current camera stream and allows switching between the three available channels. Each channel provides different streaming configurations, such as resolution and network parameters. Note that each channel has its own independent streaming settings.

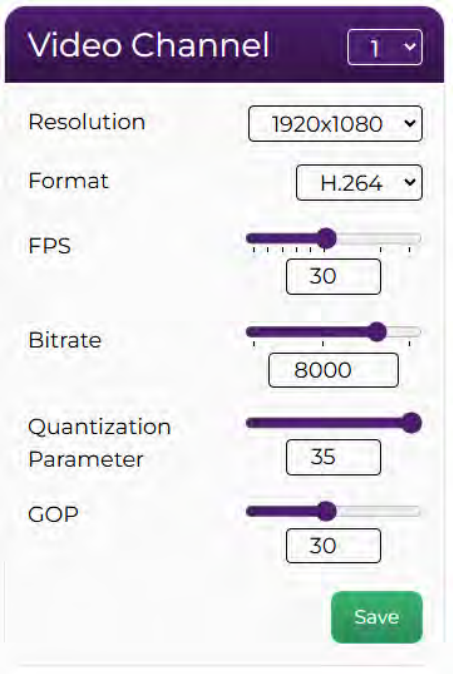



Figure 12 Encoding configuration interface

**Channel**
To choose which video stream to view (Channel 1, 2, or 3), use the drop-down list provided on the page.
**Resolution**
Select the desired resolution.
**Format**
It can be H.264 or MJPG.
**FPS**
Select the desired frames per second.
**Bitrate**
Bitrate — Determines the amount of data transmitted per second in the video stream. This setting affects video quality and file size.
**Quality**
Controls the level of detail and compression in the video. This setting affects both video clarity and required bandwidth or storage space.
**GOP**
Defines the sequence of keyframes (I-frames) and predictive frames (P-frames), affecting video compression, quality, and streaming efficiency.
**Save**
After modifying one or more channel settings, click the green 'Save' button at the bottom of the section to apply your changes. This ensures that all changes are applied and retained.

⚠ MJPG format is only supported on the third video channel. When selected, the web interface will display video at a fixed rate of 5 frames per second, regardless of the configured frame rate. However, the configured frame rate still applies to RTSP and ONVIF streams.

⚠ If channel 1 is set to 3840×2160 resolution, you can use either VPTZ or VDR on this channel, but not both at the same time.

### 7.2.3 Stream preview

The stream preview allows you to select the channel you want to view and configure it using the imaging and encoding settings.

Viewing the preview is not the primary method for receiving the stream. It is recommended to use the preview only during channel setup to verify the configuration. After setup, disable the preview stream for optimal performance and use RTSP or ONVIF to receive the video stream.

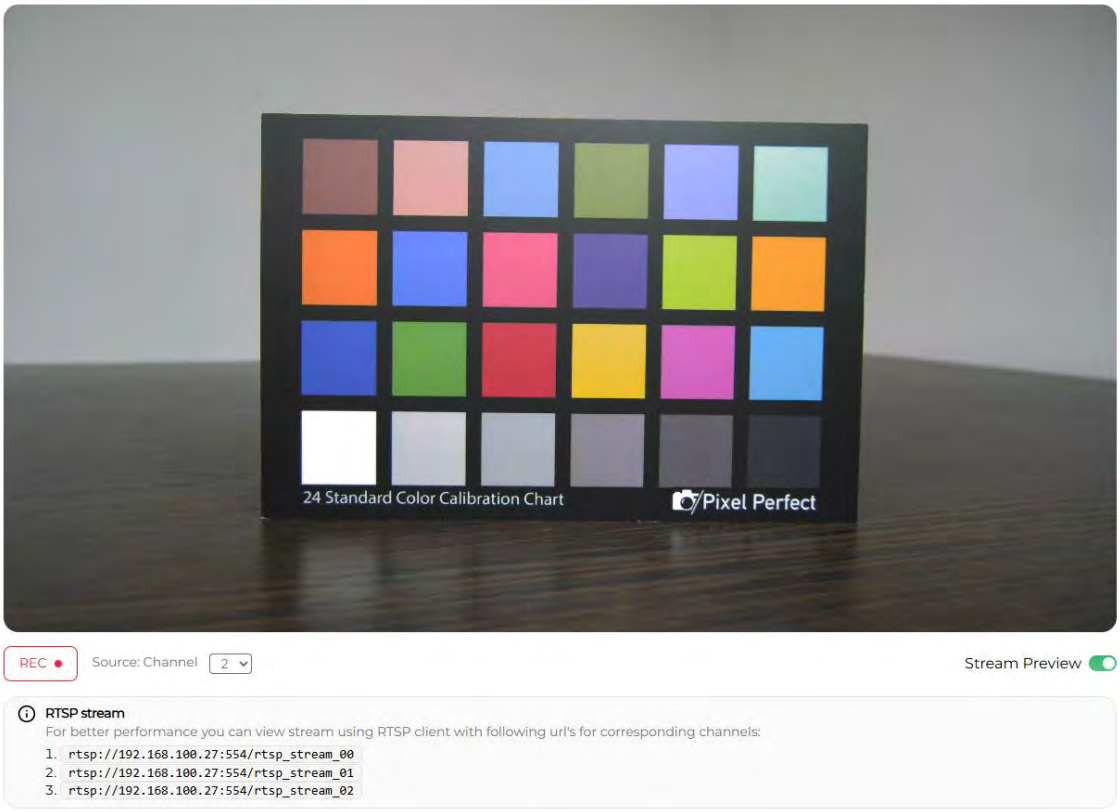



Figure 13 Stream preview

**Recording button**

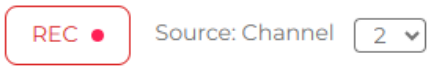



Figure 14 Recording button

To start recording video to the SD card, press the REC button. Press the button again to stop. There is a dropdown list on the side that lets you select the channel for recording. Recording is only available on channels 2 and 3.

If you attempt to record video without an SD card inserted, a warning message will appear.

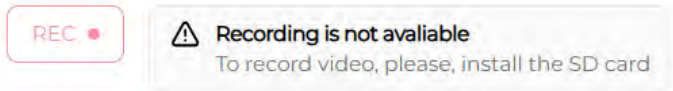



Figure 15 Recording warning about SD card

For more information about recording, see section 9.

**Stream preview**
This switch enables or disables the stream preview in the web interface.

**RTSP stream information**
For optimal performance, use any RTSP-compatible client to view the stream. The system automatically generates RTSP URLs for each channel.

## 7.3 Settings

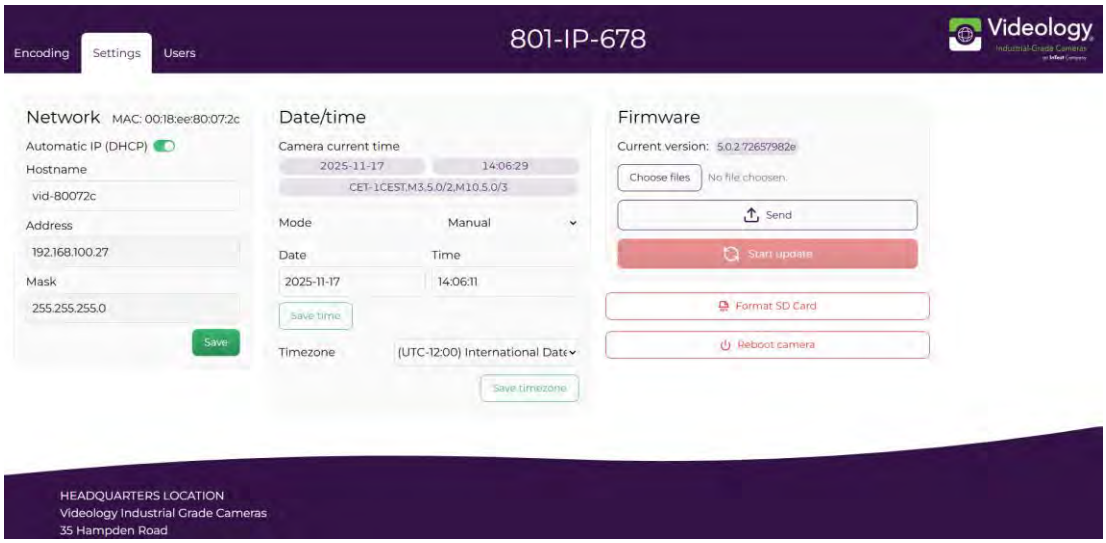



Figure 16 Settings

### 7.3.1 Network settings

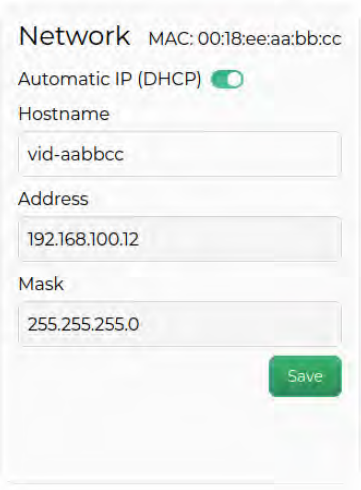



Figure 17 Network settings

**Automatic IP (DHCP)**
The camera comes as standard with the automatic IP (DHCP) option enabled. That means the router dynamically assigns an IP address to the camera. When this option is turned off, a fixed IP address can be set by the user via the address field.

Note that if the fixed IP address or subnet mask is set incorrectly, communication to the camera might be lost. Consult your IT department if you are unsure how to use these fields.

When done adjusting these settings, use the green SAVE button.

### 7.3.2 Date and time

You can view and configure the date, time, and time zone through the web interface.

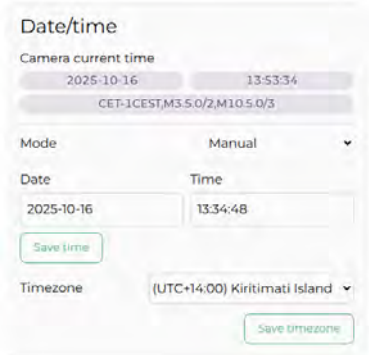



Figure 18 Date and time setting

**Camera current time**
Displays the current date, time, and time zone from the camera's real-time clock.

**Mode**
There are three available modes for setting the date and time:

1. Automatic via NTP
   In this mode, time synchronization is performed using NTP servers. You can synchronize the time manually by clicking the 'Sync Time' button or enable periodic synchronization. NTP servers can be added or removed as needed, but after any changes, make sure to click the green "Save servers" button. You can also select a time zone in this mode.
2. Sync from Computer
   This mode displays a preview of your computer's current time and time zone. To synchronize the device time with your computer, click the green "Apply" button.
3. Manual
   In this mode, you can manually set the date and time. After entering the desired values, press the green "Save time" button to apply the changes. You can also manually select the time zone.

### 7.3.3 Firmware

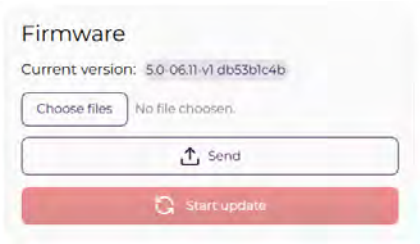
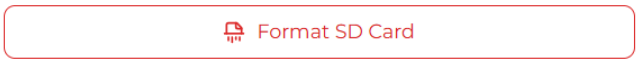



Figure 19 Firmware

**Current version**
Displays the current firmware version.

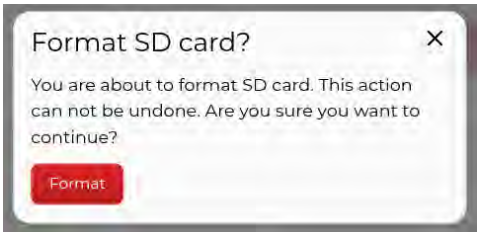
**Firmware update**
1. Click the 'Choose File' button and select the firmware update archive from your computer. The archive can be downloaded from the official website https://www.videologyinc.com/.
2. Click the "Send" button to upload the file to the device.
3. After the file is uploaded, click 'Start Update' to begin the firmware update process.

### 7.3.4 Format SD Card




Click the red "Format SD Card" button to erase all data from the memory card.

Figure 20 Format SD card button

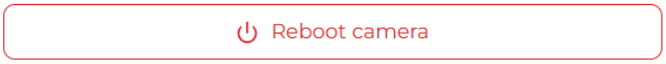



Confirm that you intend to erase all data from the SD card before proceeding.

Figure 21 Confirm formatting of the SD card

⚠ If Channel 1 is set to a resolution of 3840×2160, formatting the SD card may take more than 15 minutes. Please allow sufficient time for the process to complete, or lower the channel resolution to reduce the formatting time.

### 7.3.5 Reboot camera




Press this button to restart the camera.

Figure 22 Reboot camera button

## 7.4 Users

This page is for user management.

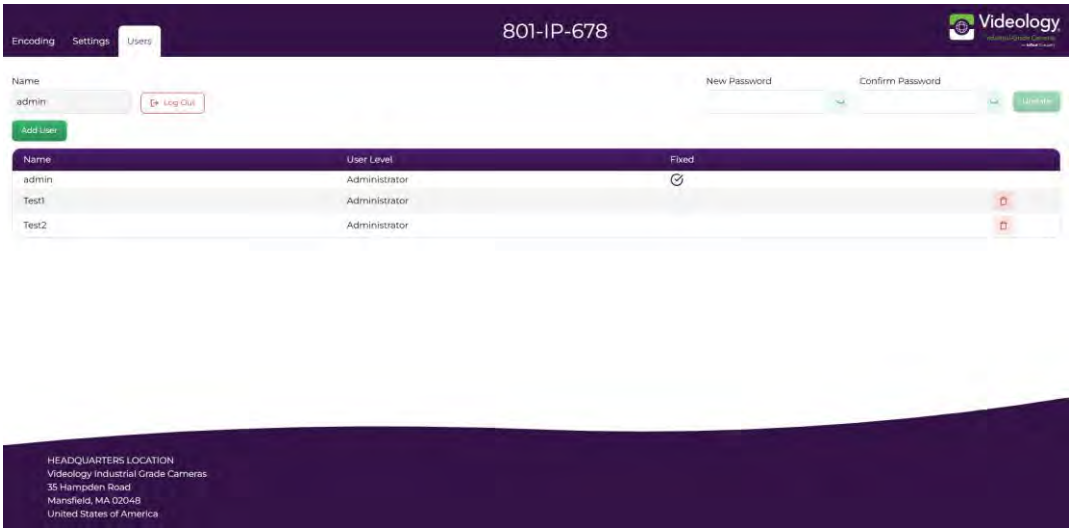



Figure 23 Users management

### 7.4.1 Current user


Figure 24 Current user

This section shows the current user name with a 'Log Out' button next to it. On the right side of the page, there are two input fields for entering and confirming a new password, along with a button to save the updated password.

### 7.4.2 User level

The user-level option is required only for ONVIF. This setting cannot be configured at this time.

### 7.4.3 Add user


To add a user, click the green "Add user" button

Figure 25 "Add user" button


Enter a username and password in the pop-up window. The password must be at least 4 characters long. Click the green "Save" button to apply the changes.

Figure 26 User creation

### 7.4.4 User table


Figure 27 User table

This section displays information about all users and provides options for interaction, such as editing or deleting user accounts.

The "Name" column lists the usernames.
The "User Level" column shows the access level assigned to each user.
The "Fixed" column may display a check mark, indicating that the user account cannot be deleted. If there is no check mark, the delete button will appear at the end of the row for that user.
Delete icon — Removes the user account.

# 8. HTTPS API

Communicating with the camera is through the HTTPS API. Using an internet browser address bar, ip address of the camera (In this example: 192.168.0.108), followed by the command and arguments listed below.

## 8.1 Virtual Pan Tilt Zoom VPTZ

This feature enables the digital zoom of the camera. Different parts of the image can be zoomed and panned up and down. The operation can be done from the web interface described in section 7.2.1 or by the HTTPS commands. This feature is different from the Digital Zoom function (Dzoom), which ''snaps'' to a certain zoom level and position in the image.

⚠ These commands are set up differently from the ''video?'' input arguments described in section 8.2 and appendix 11. Here, the configuration command ''vptz?'' is used, followed by the input arguments.

Example:

`https://192.168.0.108/cgi-bin/vptz?-z1`

Camera's IP address | Configuration command | Input argument

The input argument is a letter, for example -z. After the letter, the value **(α)** is inserted. For example, for zooming in speed 1x: -z1.

| Input argument | Description | Range (α) |
|---|---|---|
| -zα | Zoom in speed | 1 ~ 30 |
| -z-α | Zoom out speed | 1 ~ 30 |
| -s | Stop zooming in or out | N.A. |
| -pα | Pan right | 1 ~ 100 |
| -p-α | Pan left | 1 ~ 100 |
| -tα | Tilt up | 1 ~ 100 |
| -t-α | Tilt down | 1 ~ 100 |

Table 2. VPTZ input arguments

See below an example HTTPS command string for the VPTZ function to be programmed into an API.

Zooming in at 1x speed and then panning to the left at 1x speed:

1. /cgi-bin/vptz?-z1
2. /cgi-bin/vptz?-s
3. /cgi-bin/vptz?-p1
4. /cgi-bin/vptz?-s

⚠ The STOP action (-s) is required after every operation, otherwise the action continues indefinitely.

## 8.2 Video Configuration

To change the imaging or video settings use the below structure.

Here is an example of how the video brightness level is adjusted:

```
https://192.168.0.108/cgi-bin/video?EBTD=255
```

Camera's IP address | Configuration command | Input argument

Every configuration command follows the same structure.

The full list of "video?" input arguments is on the last section of this document, *Appendix: list of configuration IDs*.

## 8.3 Backlight Compensation

The window range is 1 to 100. 1 corresponds to the full frame, and the window gets progressively smaller as you increase the value to 100.

```
https://192.168.0.108/cgi-bin/blc.cgi?{"request":"set","value":15}
```

Camera's IP address | Configuration command | Input argument

## 8.4 Encoding

For encoding settings, the general structure of the commands should be as follows:

```
https://192.168.0.108/cgi-bin/encoder.cgi?[{channel1},{channel2},{channel3}]
```

Camera's IP address | Configuration command | Input arguments

For each channel, the following parameters should be defined:

- width
- height
- fps
- encoding
- bitrate
- quality
- gov

See section 7.2.2 for detailed descriptions of each encoding setting. The possible values of each parameter are the same as in the web interface. The width and height correspond to the resolution in the horizontal and vertical axis.

Below is an example of how to configure the encoder for the three streams via an HTTPS command. The full command is written without spaces. It is necessary that the parameters for all three streams are configured when sending a HTTPS command.

https://192.168.0.108/cgi-bin/encoder.cgi?
[{"width":1920,"height":1080,"fps":30,"encoding":"H.264","bitrate":5000,"quality":30,"gov":50},
{"width":1920,"height":1080,"fps":30,"encoding":"H.264","bitrate":3000,"quality":30,"gov":50},
{"width":1280,"height":720,"fps":30,"encoding":"H.264","bitrate":2000,"quality":30,"gov":50}]

| Width | Height | Channel support |
|---|---|---|
| 3840 | 2160 | 1 |
| 1920 | 1080 | 1, 2 |
| 1280 | 720 | 1, 2, 3 |
| 640 | 480 | 3 |

Table 3. Video resolution

⚠ If channel 1 is set to 3840×2160 resolution, you can use either VPTZ or VDR on this channel, but not both at the same time.

## 8.5 AP LED

When the value is set to 1, the AP LED turns on to show that the device is operating. When set to 0, the indicator remains off.

`https://192.168.0.108/cgi-bin/gpio.cgi?{"request":"set","gpio":"led","value":1}`

Camera's IP address — Configuration command — Input argument

## 8.6 On screen time

Enables the display of the current date and time on the video stream.

| Value | Description |
|---|---|
| start | Enable osd |
| stop | Disable osd |
| status | Check status |

Table 4. OSD input arguments

Example:

`https://192.168.0.108/cgi-bin/osd-ctrl.cgi?start`

Camera's IP address — Configuration command — Input argument

## 8.7 Network

To set a static IP address:

```
https://192.168.0.108/cgi-bin/net.cgi?{"address":"192.168.0.109/24"}
```

- `192.168.0.108` — Camera's IP address
- `net.cgi?` — Configuration command
- `192.168.0.109` — IP address
- `24` — Network mask

⚠ If you forget the network mask, it will not work.

To set the camera to a dynamic IP address (DHCP):

```
https://192.168.0.108/cgi-bin/net.cgi?{"DHCP":true}?
```

- `192.168.0.108` — Camera's IP address
- `net.cgi?` — Configuration command
- `true` — Input argument

To get the current IP address:

```
https://192.168.0.108/cgi-bin/net.cgi?{"address":null}
```

- `192.168.0.108` — Camera's IP address
- `net.cgi?` — Configuration command

To get the hostname:

```
https://192.168.0.108/cgi-bin/net.cgi?{"hostname":null}
```

- `192.168.0.108` — Camera's IP address
- `net.cgi?` — Configuration command

## 8.8 Firmware version query

To query the firmware version of the camera, use HTTPS command:

```
https://192.168.0.108/cgi-bin/version?
```

- `192.168.0.108` — Camera's IP address
- `version?` — Query command

## 8.9 Date and time

To set the date and time (use the format: data=yyyy-mm-dd&time=hh:mm:ss):

```
https://192.168.0.108/cgi-bin/datetime.cgi?date=2025-10-06&time=01:08:54
```

- `192.168.0.108` — Camera's IP address
- `datetime.cgi?` — Configuration command
- `date=2025-10-06&time=01:08:54` — Input arguments

To save time zone:

```
https://192.168.0.108/cgi-bin/onvif.cgi?{
"type":"set","data":"Timezone","value":{"Timezone":"UTC+8"}}
```

Time zone

The time zone field may include descriptive text at the beginning; however, it must always end with a numeric value (which can be negative) representing the UTC offset for the region.

To get the current date and date, as well as the time zone:

```
https://192.168.0.108/cgi-bin/datetime.cgi?
```

Camera's IP address | Query command

To synchronize time with an NTP server:

```
https://192.168.0.108/cgi-bin/ntp.cgi?{"action":"sync"}
```

Camera's IP address | Configuration command | Input argument

To add an NTP server:

```
https://192.168.0.108/cgi-bin/ntp.cgi?{"action":"set-
servers","servers":["time.inrim.it"]}
```

NTP server

You can specify multiple NTP servers within square brackets, separated by commas. Each server name must be enclosed in double quotation marks.

To "enable" or "disable" automatic synchronization with added NTP servers:

```
https://192.168.0.108/cgi-bin/ntp.cgi?{"action":"disable"}
```

Camera's IP address | Configuration command | Input argument

To get information about time settings related to ntp:

```
https://192.168.0.108/cgi-bin/ntp.cgi?{"action":"get"}
```

Camera's IP address | Configuration command | Input argument

## 8.10 Recording video

To start or stop recording, use the command shown below. Specify either "start" or "stop" along with the channel number. Note that recording can only be performed on one channel at a time.

```
https://192.168.0.108/cgi-bin/video-rec.cgi? {"request":"set","value":"start","channel":"1"}
```
Camera's IP address — Query command — Value — Channel

To get the status of a recording:

```
https://192.168.0.108/cgi-bin/video-rec.cgi?{"request":"get","value":"status"}
```
Camera's IP address — Query command — Value

## 8.11 Format SD card

Clear the memory card:

```
https://192.168.0.108/cgi-bin/format-sd.cgi?
```
Camera's IP address — Configuration command

Get a status:

```
https://192.168.0.108/cgi-bin/format-sd.cgi?{"get":"status"}
```
Camera's IP address — Configuration command — Input argument

⚠ If Channel 1 is set to a resolution of 3840×2160, formatting the SD card may take more than 15 minutes. Please allow sufficient time for the process to complete, or lower the channel resolution to reduce the formatting time.

## 8.12 Reboot

To reboot:

```
https://192.168.0.108/cgi-bin/reboot?
```
Camera's IP address — Query command

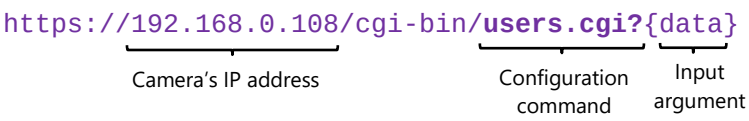
## 8.13 User management

Configuration command: "/users.cgi". The message format is JSON. See the value descriptions and examples below.

| Input argument | Description | Range |
|---|---|---|
| type | Type of action | add/set/remove |
| UserLevel | 0 – administrator, 1 – operator, 2 - user | 0 ~ 2 |
| fixed | Lock, more in 6.4.4 | true/false |
| name | User name | - |

Table 5. User management input arguments

Example:




Add user:

https://192.168.0.108/cgi-bin/users.cgi?{"type":"add","UserLevel":1,"pass":"1234","name":"Test","fixed":false}

Update user (password and user level):

https://192.168.0.108/cgi-bin/users.cgi?{"type":"set","UserLevel":2,"pass":"1234","fixed":false,"name":"Test"}

Update current user (only password):

https://192.168.0.108/cgi-bin/users.cgi?{"type":"set","name":"Test","pass":"1"}

Delete user:

https://192.168.0.108/cgi-bin/users.cgi?{"type":"remove","name":"Test"}

# 9. Recording

Video recording will start automatically when the camera is turned on or rebooted with an SD card inserted. The SD card must be formatted.

## 9.1 SD card formatting instructions

Format the SD card using the FAT32 format, with a block size of 32 kilobytes.
For information and software to format the SD card, please contact your IT department.

## 9.2 Video Recording

Video files on the SD card are organized by date and hour. The root directory is `/sd`, and each day has its own folder named in `YYYY-MM-DD` format (e.g., `/sd/2025-12-11`). Inside it, recordings are grouped into subfolders by hour (00–23), such as `/sd/2025-12-11/13`. Videos are saved as multiple two-minute segments. Each file name includes the channel number, resolution, frame rate, and the start timestamp.

```
ch2_1920x1080x30__2025-12-08_13-50-32.mp4
ch2_1920x1080x30__2025-12-08_13-52-32.mp4
ch2_1920x1080x30__2025-12-08_13-54-32.mp4
ch2_1920x1080x30__2025-12-08_13-56-32.mp4
```

Example full path: `/sd/2025-12-11/13/ch2_1920x1080x30__2025-12-11_13-50-32.mp4`

⚠ If you have trouble viewing recorded MP4 files, ensure that your media player fully supports the H.264 video codec. Most modern media players support this format.

When the camera is turned off, or the SD card is removed, the last two minutes of recording will be lost.

The recording is continuous. Once the SD card becomes full, the recording starts overwriting the oldest files. The total duration of the recordings depends on the size of the SD card, the selected video settings and how much motion there is in the scene being recorded.
As a reference, Table 6 shows approximate recording times for different SD card sizes with the following channel settings: 1920×1080, H.264 codec, 30 FPS, 10,000 Kbps bitrate, Quantization Parameter - 15, and GOP size of 30.

| SD card size | Recording time |
|---|---|
| 32GB | 8.5 hours |
| 64GB | 17 hours |
| 128GB | 1.5 days |
| 256GB | 3 days |
| 512GB | 6 days |
| 1024GB | 12 days |

Table 6. Approximate recording time

Use an SD card that meets the speed requirements of your selected stream. Higher resolution, frame rate, and bitrate demand faster cards. For Full HD recording, choose a card rated Class 10 or higher.

## 9.3 GPIO Trigger Snapshot

The camera supports external snapshot triggering through GPIO22 and GND. By connecting these two the camera will automatically take a snapshot. This feature allows you to connect external devices to trigger the camera. You can use a motion detector, push button, or any other sensor capable of closing the circuit between GPIO22 and GND. Refer to section 6.7.4 for pin layout.

⚠ The camera stores snapshots in its internal memory, with a maximum capacity of 10 images. When this limit is reached, the oldest snapshot is automatically overwritten by the newest one, ensuring that the memory always contains the most recent images.

## 9.4 FTP server

To access the snapshots and videos, connect to the camera via FTP using the following credentials:

**Username:** ftpuser
**Password:** (without a password)
**Port:** 2121

If you require assistance with FTP software installation or configuration, please contact your IT department.

After connecting to the camera via FTP, you will have access to two directories:

1. `sd` – contains subfolders organized by date with video recordings and may also contain firmware files
2. `snapshot` – contains snapshot images

These directories allow you to download or manage stored media.

There may be a short delay before files appear in the directory listing. If the contents are not visible immediately, try refreshing the folder view in your FTP client.

⚠ The camera does not support copying files from the SD card while streaming all three channels at maximum resolution. Please lower stream resolution while transferring recordings from the SD card.

## 9.5 Clear SD card

Use the Web Interface as described in section 7.3.4.
Alternatively, perform the operation via HTTPS, following the instructions in section 8.11.

# 10. Dimensions

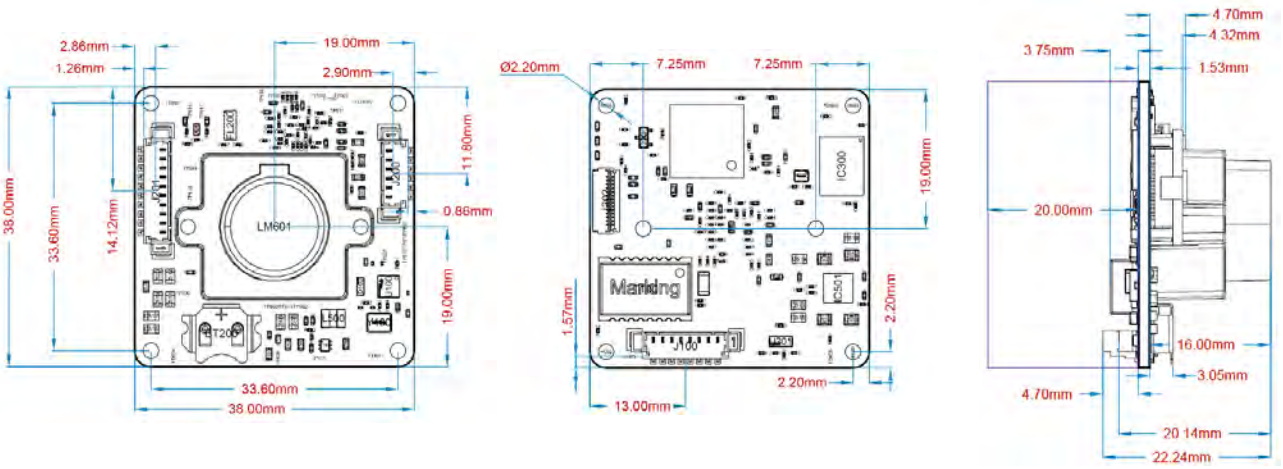



Figure 28 Camera Dimensions

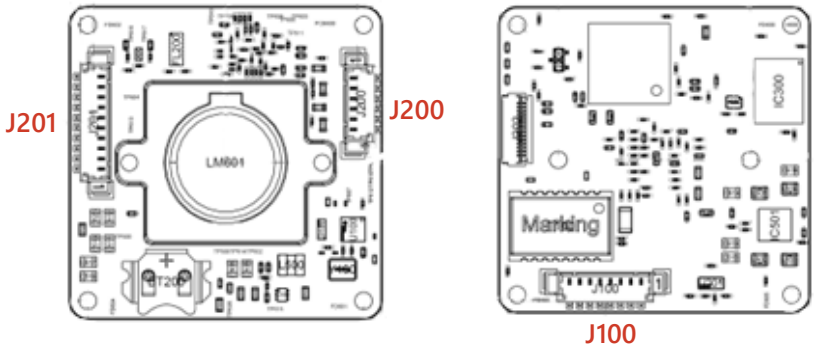



Figure 29 Connectors

Datasheets and 3D STEP files are available on the Videology website.

# 11. Appendix: list of configuration IDs

Values and parameters for the ''Video?'' HTTPS commands to alter the imaging settings of the camera. This is explained in section 8.2.

## 11.1 Exposure

Sets the target brightness through AE (Auto Exposure) function.

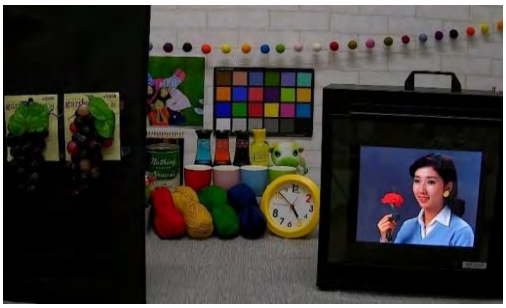
| ID | Feature | Description | Range |
|---|---|---|---|
| EBON | AeOn | Auto Exposure operation. (0: OFF, 1: ON) | 0 ~ 1 |
| EBTD | Brightness | Set the brightness. | 0 ~ 255 |
| EBTN | AgcTarget | Set the AGC target. (0~100 %of normal brightness) A situation in which AGC is entered in AE control may determine that the current scene is dark. Setting the same brightness as a bright scene in a dark scene can be unnatural, so set the brightness to a percentage of normal brightness when AGC is entered. | 0 ~ 100 |
| ESON | AntiSatOn | The ability to improve image saturation due to SPOT. (0: OFF, 1: ON) | 0 ~ 1 |
| ESWT | SatBrt | Sets the strength of the ANTI SAT. (Min: 0 ~ Max: 20)<br>The larger the value, the more visible for saturation areas, but the surrounding area becomes darker. | 0 ~ 20 |
| ESSB | Stabilizing | Sets the degree of control stabilization for changes in SPOT images.<br>(0: OFF (immediate response), 1: LOW (15FPS), 2: MIDDLE(30FPS), 3: HIGH(60FPS)) | 0 ~ 3 |
| EION | Iris | ELC will pull IRIS full open, and ALC will control brightness with IRIS. DC iris (0: ELC, 1: ALC), piris & AF iris (0: MANUAL, 1: AUTO) | 0 ~ 1 |
| ESHT | Shutter | Sets sensor shutter control method. (0: AUTO, 1: MANUAL, 2: FLICKER) | 0 ~ 2 |
| ESHN | ShtMin | Sets the Shutter Min Exposure Time (Sec) in AUTO mode<br>(0: 1/30, 1: 1/60, 2: 1/120, 3: 1/250, 4: 1/500, 5: 1/1000, 6: 1/2000,<br>7: 1/4000, 8: 1/8000, 9: 1/15000, 10: 1/30000) | 0 ~ 10 |
| ESHD | DeblurMin | Sets the Deblur Min Shutter Exposure Time (Sec) in AUTO mode<br>(0: 1/30, 1: 1/60, 2: 1/120, 3: 1/250, 4: 1/500, 5: 1/1000, 6: 1/2000,<br>7: 1/4000, 8: 1/8000, 9: 1/15000, 10: 1/30000) | 0 ~ 10 |
| ESHM | ShtMax | Sets the Shutter Max Exposure Time (Sec) in AUTO mode<br>(0: 1/30, 1: 1/60, 2: 1/120, 3: 1/250, 4: 1/500, 5: 1/1000, 6: 1/2000,<br>7: 1/4000, 8: 1/8000, 9: 1/15000, 10: 1/30000) | 0 ~ 10 |
| ESHP | ShutSpd | Sets the Shutter Exposure Time (Sec) in MANUAL mode. | 0 ~ 10 |

| | | | |
|---|---|---|---|
| | | (0: 1/30, 1: 1/60, 2: 1/120, 3: 1/250, 4: 1/500, 5: 1/1000, 6: 1/2000,<br>7: 1/4000, 8: 1/8000, 9: 1/15000, 10: 1/30000) | |
| EMDC | DcMode | Sets Auto Exposure Control mode when Iris settings are ALC. (0: INDOOR, 1: OUTDOOR, 2: DEBLUR)<br>**INDOOR**<br>Full Shutter fixation to prevent indoor Flicker generation, AE control mode with IRIS.<br>At this time, the Shutter is automatically changed to Full Shutter.<br>**OUTDOOR**<br>In outdoor situations, the setting for AE control with IRIS is fixed to the SHUTTER MIN when IRIS control is performed. However, when the surrounding environment becomes dark and IRIS becomes full open, it controls AE with the shutter and operates up to SHUTTER MAX.<br>**DEBLUR**<br>It will operate the same as DEBLUR mode in IRIS Full Open & ShtMode. (see below) | 0 ~ 2 |
| EMSH | ShtMode | Sets Auto Exposure Control mode when Iris settings are ELC. (0: NORMAL, 1: DEBLUR)<br>**NORMAL**<br>IRIS is a mode that controls AE with a Full Open and a Shutter.<br>**DEBLUR**<br>It is a function to minimize the Blur phenomenon that occurs as you go to Slow Shutter. To minimize the Blur, AGC is applied to improve the Shutter speed quickly. | 0 ~ 1 |
| EDSS | Dss | Sets mode for Long shutter (>1Frame).<br>The ability to compensate for insufficient light by increasing the exposure time of the sensor but decreases the frame rate. (0: OFF, 1: X2, 2: X4, 3: X8, 4: X16, 5: X32, 6: X64, 7: X128) | 0 ~ 7 |
| EAGC | Agc | Sets max control range for Sensor AGC. | 0 ~ 255 |
| EISP | IrsSpeed | Sets IRIS control speed. | 0 ~ 20 |
| ESGP | ShtSpeed | Sets Shutter Control Speed. | 0 ~ 20 |
| EGCP | AgcSpeed | Sets Agc control speed. | 0 ~ 20 |
| ESHR | rAeSht | Read sensor shutter value (read only) | - |
| EAGR | rAeAgc | Read sensor AGC value (read only) | - |

Table 7. Exposure Control

Example:

AntiSatOn 0 (Off)



AntiSatOn 1(On/Lv10)

Iris 0(ELC)

Iris 1(ALC)

Figure 30 Exposure example

## 11.2 WDR

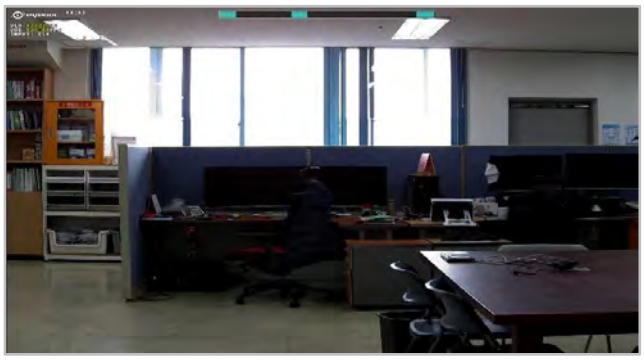
Setting Function to WDR (Wide Dynamic Range).

| ID | Feature | Description | Range |
|---|---|---|---|
| WDON | WdrOn | WDR operation ON. (0: OFF, 1: ON) | 0 ~ 1 |
| WMOD | *WdrMode | WDR method setting. (0: ISP FRAME WDR, 1: LINE HDR) | 0 ~ 1 |
| WLMD | WdrLine | Set LINE HDR mode (0: 2Page, 1: 3Page) | 0 ~ 1 |
| WWTL | WdrWgt | WDR intensity setting. (0: LOW, 1: MIDDLE, 2: HIGH) | 0 ~ 2 |
| WBTL | AE_WDR_LTGT_OFST2 | The brightness (Iris, AGC, Shutter) of the dark domain is established in the WDR mode. | 0 ~ 511 |
| WBTS | AE_WDR_STGT_OFST2 | The brightness (Iris, AGC, Shutter) of the bright domain is established in the WDR mode. | 0 ~ 511 |
| WBTM | AE_WDR_MTGT_OFST2 | The brightness (Iris, AGC, Shutter) of the medium domain is established in the WDR mode. | 0 ~ 255 |
| WBTN | AE_WDR_LTGT_NIGHT | The brightness (Iris, AGC, Shutter) of the dark domain is established in the WDR mode at night. 0~100 Percent(%) of the daytime brightness | 0 ~ 100 |
| WBTD | ACEWDR1_TH | The brightness (ISP Gain) of the whole-area in the WDR mode. | 0 ~ 255 |
| WCNT | ACEWDR2_TH | The contrast (ISP Contrast) of the whole-area in the WDR mode. | 0 ~ 255 |

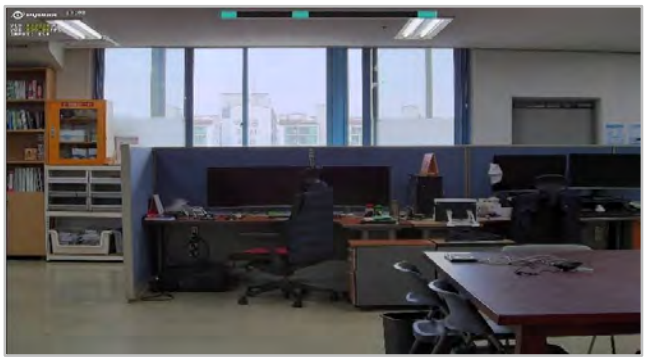
| | | | |
|---|---|---|---|
| WGMM | GammaWdr | Gamma Settings in WDR Mode.<br>(0: 0.45, 1: 0.5, 2: 0.55, 3: 0.6, 4: 0.65, 5: 0.7, 6: 0.75, 7: Adaptive, 8: Default) | 0 ~ 8 |
| WGMD | GammaWdrDay | Day gamma settings in gamma adaptive mode with WDR.<br>(0: 0.45, 1: 0.5, 2: 0.55, 3: 0.6, 4: 0.65, 5: 0.7, 6: 0.75) | 0 ~ 6 |
| WGMN | GammaWdrNgt | Night gamma settings in gamma adaptive mode with WDR.<br>(0: 0.45, 1: 0.5, 2: 0.55, 3: 0.6, 4: 0.65, 5: 0.7, 6: 0.75) | 0 ~ 6 |

Table 8. WDR Control

⚠ *WdrMode[WMOD] is reflected in Initial only when the initial value of SSID meets the condition. See SSID parameter.



WdrOn 0 (off)



WdrOn 1

Figure 31 WDR WdrOn

## 11.3 Color

AWB (Auto White Balance) is a function that automatically balances colors according to the color temperature characteristics of the input image.

| ID | Feature | Description | Range |
|---|---|---|---|
| WBMD | AwbMode | The AWB Mode consists of AUTO, AUTOext, PRESET, and MANUAL Mode<br>(0: AUTO, 1: AUTOext, 2: PRESET, 3: MANUAL)<br>**AUTO**<br>White Balance is automatically performed through the default color temperature band.<br>**AUTOext**<br>Color temperature range extension mode compared to AUTO mode **PRESET**<br>White Balance does not automatically renew. When using the PresetHold function, the color temperature at the time is maintained.<br>**MANUAL** | 0 ~ 3 |

| | | | |
|---|---|---|---|
| | | The White Balance is proceed based on the fixed color temperature (3000K, 5000K, 8000K). RGAIN and BGAIN can be established additionally. | |
| WBPS | AwbPresetHold | If you write 1, It get the color temperature information at the time. When color temperature acquisition is finished, the 'AwbPresetHold' parameter is changed to 0. In Awb 'PRESET' mode, the held color temperature information is fixed. | 0 ~ 1 |
| WBMT | AwbMnlTemp | In the Manual mode, the color temperature is established (0: 3000K, 1: 5000K, 2: 8000K) | 0 ~ 2 |
| WBMR | AwbMnlRgain | In the Manual mode, the weight about red color is controlled | 0 ~ 255 |
| WBMB | AwbMnlBgain | In the Manual mode, the weight about blue color is controlled | 0 ~ 255 |
| WBSR | SaturationR | Function that adjusts the overall color of the image in the red direction | 0 ~ 255 |
| WBSG | SaturationG | Function that adjusts the overall color of the image in the green direction | 0 ~ 255 |
| WBSB | SaturationB | Function that adjusts the overall color of the image in the blue direction | 0 ~ 255 |

Table 9. Color Control

⚠ Change DebugMode[DBMD] into 3 to display the AWB window area.

AWB off | AWB 0 (Auto) | AWB 1 (Autoext)

Figure 32 AWB example

AwbMnl 0(3000K)
(light source: CWF)

AwbMnl 1(5000K)
(light source: CWF)

AwbMnl 2(8000K)
(light source: CWF)

Figure 33 AwbMnlTemp example

### 11.3.1 Saturation

The saturation parameter is a combination of three values, WBSR (Red), WBSG (Green), WBSB (Blue). To alter the saturation, each of the three color parameters should be set to the same value.

SaturationR

SaturationG

SaturationB

Figure 34 Saturation example

## 11.4 HUE & CHROMA

Hue and chroma settings that control custom colors.

| ID | Feature | Description | Range |
|---|---|---|---|
| HYRG | Yellow_HUE_RedToGreen | Adjust Yellow Hue from Red to Green (0: Red, 255: Green) | 0 ~ 255 |
| HYCH | Yellow_CHROMA | Adjust Yellow Chroma | 0 ~ 255 |
| HRYB | Red_HUE_YellowToBlue | Adjust Red Hue from Yellow to Blue (0: Yellow, 255: Blue) | 0 ~ 255 |
| HRCH | Red_CHROMA | Adjust Red Chroma | 0 ~ 255 |
| HBGR | Blue_HUE_GreenToRed | Adjust Blue Hue from Green to Red (0: Green, 255: Red) | 0 ~ 255 |
| HBCH | Blue_CHROMA | Adjust Blue Chroma | 0 ~ 255 |

| | | | |
|---|---|---|---|
| HGBY | Green_HUE_BlueToYellow | Adjust Green Hue from Blue to Yellow (0: Blue, 255: Yellow) | 0 ~ 255 |
| HGCH | Green_CHROMA | Adjust Green Chroma | 0 ~ 255 |

Table 10. HUE & CHROMA Control

Default Blue CHROMA Blue HUE GreenToRed

Figure 35 HUE & CHROMA example

## 11.5 Color suppression

Color suppression mode is a function to correct the problems generated in color reproduction. There are three functions: low light color, edge color, and high light color.

| ID | Feature | Description | Range |
|---|---|---|---|
| CSHO | HSUP_ON | High Light color suppression on/off (Y domain control) (0: OFF, 1: ON) Corrects problems in color reproduction caused by differences caused by different RGB saturation points | 0 ~ 1 |
| CSHT | HSUP_TH | High Light color suppression threshold (Y domain control) The standards of the saturation point of time is established. | 0 ~ 255 |
| CSEN | CES_NOR | Edge color suppression weight in normal<br>Corrects the problem that occurs when color is affected at the edge during RGB interpolation | 0 ~ 40 |
| CSEW | CES_WDR | Edge color suppression weight in WDR<br>Corrects the problem that occurs when color is affected at the edge during RGB interpolation | 0 ~ 40 |
| CSLO | LSUP_ON | Low Light color suppression on/off (0: OFF, 1: ON)<br>Function to suppress the occurrence of color noise when entering AGC | 0 ~ 1 |

Table 11. Color suppression Control

HSUP_ON 0 (Off) HSUP_ON 1 (On)

Figure 36 Color suppression example

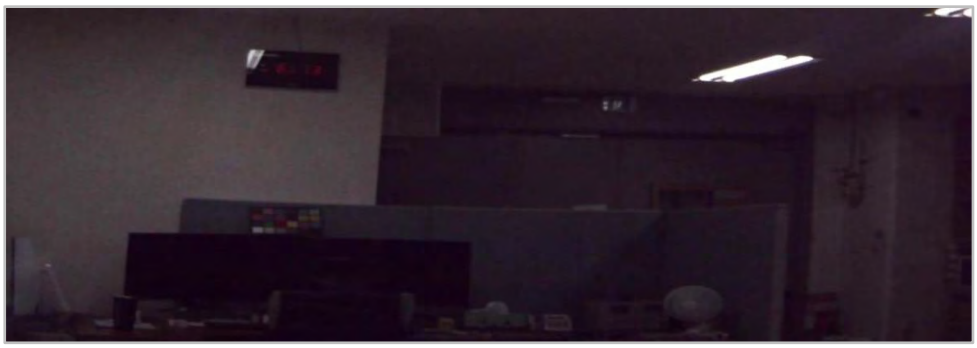
## 11.6 DNR

Settings related to noise reduction.

| ID | Feature | Description | Range |
|---|---|---|---|
| DN3L | Adnr3D | Setting the intensity of 3D DNR<br>(0: OFF, 1~25: LOW, 26~75: MIDDLE,<br>76~177: HIGH, 178~255: VERY HIGH) | 0 ~ 255 |
| DN3N | Adnr3D_Ngt | Setting the intensity of night 3D DNR<br>(0: OFF, 1~25: LOW, 26~75: MIDDLE,<br>76~177: HIGH, 178~255: VERY HIGH) | 0 ~ 255 |
| DN3I | DnrIncrease | The ability to interlock the control strength of the 3D DNR according to the AGC value (0: OFF, 1: ON)<br>The larger the AGC value, the larger the 3D DNR strength | 0 ~ 1 |
| DN2D | Adnr2D | Setting the intensity of 2D DNR<br>(0: OFF, 4: LOW, 8: MIDDLE, 16: HIGH, 17~255: VERY HIGH) | 0 ~ 255 |
| DN2N | Adnr2D_Ngt | Setting the intensity of night 2D DNR<br>(0: OFF, 4: LOW, 8: MIDDLE, 16: HIGH, 17~255: VERY HIGH) | 0 ~ 255 |
| DN2E | EdgeLv | 2D DNR edge level | 0 ~ 4 |

Table 12. DNR Control

Adnr3D 0 (Off)



Adnr3D 51 (On)

Figure 37 DNR example

## 11.7 Sharpness

Settings related to sharpness.

| ID | Feature | Description | Range |
|---|---|---|---|
| SPLV | Sharpness | Setting the intensity of sharpness<br>The function of emphasizing the edge of the image | 0 ~ 255 |
| SPEB | ShpEdgeBoost | Edge Enhancement | 0 ~ 255 |
| SPEL | ShpEdgeLimit | Edge Limitation in Low Lighst | 0 ~ 255 |
| SPBE | ShpBigEdge | Sharpness for Big edge image | 0 ~ 255 |
| SPSE | ShpSmallEdge | Sharpness for Small edge image | 0 ~ 255 |

Table 13. Sharpness Control

Sharpness 0

Sharpness 128

Figure 38 Sharpness example

### 11.8 Gamma

Set the gamma parameter.

| ID | Feature | Description | Range |
|---|---|---|---|
| GMML | Gamma | Gamma setting<br>(0: 0.45, 1: 0.5, 2: 0.55, 3: 0.6, 4: 0.65, 5: 0.7, 6: 0.75, 7: Adaptive)<br>Set to Adaptive, you can set up separate Gamma settings for Day and Night | 0 ~ 7 |
| GMMD | GammaDay | Day gamma settings in gamma adaptive mode<br>(0: 0.45, 1: 0.5, 2: 0.55, 3: 0.6, 4: 0.65, 5: 0.7, 6: 0.75) | 0 ~ 6 |
| GMMN | GammaNgt | Night gamma settings in gamma adaptive mode<br>(0: 0.45, 1: 0.5, 2: 0.55, 3: 0.6, 4: 0.65, 5: 0.7, 6: 0.75) | 0 ~ 6 |
| GMUM | UserGammaMode | User Gamma Mode Selection<br>(0 = Low Saturation, 1 = Traditional Mode, 2 = SW Par Custom gamma) | 0 ~ 2 |
| GMY0~G | UserYGma00 ~ 16 | User Gamma Mode2 - YGamma | 0~1023 |
| GMC0~G | UserCGma00 ~ 16 | User Gamma Mode2 - CGamma | 0~1023 |

Table 14. Gamma Control

## 11.9 Contrast

Set contrast and ACE, DEFOG that corrects images with narrow Contrast.

| ID | Feature | Description | Range |
|---|---|---|---|
| CNTL | Contrast | Contrast setting | 0 ~ 255 |
| ACLV | Ace | ACE (0: OFF, 1: LOW, 2: MIDDLE, 3: HIGH) | 0 ~ 3 |
| ACWT | AceGmgn | ACE intensity setting | 0 ~ 255 |
| ACBT | *AceBrt | Brightness Setting of ACE & DEFOG | 0 ~ 64 |
| DFON | Defog | DEFOG (0: OFF, 1: LOW, 2: MIDDLE, 3: HIGH) | 0 ~ 3 |
| DFMD | DefogMode | DEFOG Mode consists of MANUAL and AUTO Mode.<br>(0: MANUAL, 1: AUTO)<br>**MANUAL**<br>The intensity of the DEFOG mode is established as manual<br>**AUTO**<br>The intensity of the DEFOG mode is established automatically | 0 ~ 1 |

Table 15. Contrast Control

⚠ Ace Brt[ACBT]: The settings are equally applicable to DEFOG.


Figure 39 Contrast example

## 11.10 Mirror

Set to invert the image vertically or horizontally.

| ID | Feature | Description | Range |
|---|---|---|---|
| IMFP | Flip | Image FLIP function (0: OFF, 1: ON) | 0 ~ 1 |
| IMMR | Mirror | Image MIRROR function (0: OFF, 1: ON) | 0 ~ 1 |

Table 16. Mirror Control

Mirror 1 (On)

Flip 1 (On)

Figure 40 Mirror example

### 11.11 Dzoom

Set the digital zoom parameter.

| ID | Feature | Description | Range |
|---|---|---|---|
| DZLV | DZoom | Digital Zoom (0 ~ DZLR-1 = OFF, DZLR ~ 6400 = x1.0 ~ x DZLV/DZLR) | 0 ~ 6400 |
| DZLR | DZoomCtrlRes | Digital Zoom control resolution | 10 ~ 100 |
| DZPH | DZoomPosH | Horizontal Start Position of Digital Zoom (2M resolution: 30 ~ 1890) | 0 ~ 1890 |
| DZPV | DZoomPosV | Vertical Start Position of Digital Zoom (2M resolution: 17 ~ 1063) | 0 ~ 1063 |

Table 17. Dzoom Control

⚠
- The DZOOM function is activated only when there is a "DZOOM YC Input".
- For “DZOOM YC Input”, the YC with the largest resolution is selected among the generated YCs.
- DZOOM function is not applied to YC selected as “DZOOM YC input”.
  case 0) YC0=5M / YC1=2M / YC2=1M
  DZOOM Input YC: YC0(5M), DZOOM applies only to YC1, YC2.
- If there are multiple YCs with the largest resolution, DZOOM is assigned with the highest YC number first.
  case 1) YC0=5M / YC1=5M / YC2=1M
  DZOOM Input YC: YC1(5M), DZOOM applies only to YC0, YC2.

DZoom 10 (x1)

DZoom 100 (x10)

Figure 41 Dzoom example

## 11.12 Motion

Settings related to motion detection.

| ID | Feature | Description | Range |
|---|---|---|---|
| ITCH | MotionCh | Select the Motion detect input source (0: Sensor, 1~4: Digital Input CH, 20~255: Auto) | 0 ~ 255 |
| ITON | MotionOn | Motion detect (0: OFF, 1: ON) | 0 ~ 1 |
| ITST | MotionSens | Motion detect Sensitivity<br>The ability to set sensitivity for motion detection | 0 ~ 255 |
| ITMO | MotionBoxOn | Function to display OSD related to Motion Detection (0: OFF, 1: ON) | 0 ~ 1 |
| ITDT | MotionWinBoxType | The ability to display the Motion Detection ROI region (0: Normal image 1: 50 % Blending 2: 75 % Blending 3: 100 % Blending 4: ROI Outline) | 0 ~ 4 |
| ITRF | MotionDetBoxFill | Color box display of object area where motion is detected (0: OFF, 1: ON) | 0 ~ 1 |
| ITAL | MotionDetFontOn | Text Alarm is a function that displays text on the screen when motion occurs (0: OFF, 1: ON) | 0 ~ 1 |
| ITCM | MotionCamMovingTH | Function to prevent false detection of motion by camera movement | 0 ~ 20 |
| ITBC | MotionBrightChgTH | Function to prevent false detection of motion by changes in screen brightness | 0 ~ 200 |
| ITSO | MotionGpioSigOn | Function to output a signal through GPIO when motion occurs (0: OFF, 1: ON) | 0 ~ 1 |

Table 18. Motion Control

MotionOn 1 – Object

Figure 42 Motion detection example

## 11.13 Focus Assist

This function is used to adjust a manual focus lens.

| ID | Feature | Description | Range |
|---|---|---|---|
| FADJ | FocusAdj_On | Edge area emphasis for focus control of manual lens.<br>(0: OFF, 1: ON) | 0 ~ 1 |
| FTHS | FocusThrs | Edge level. | 0 ~ 20 |
| FACS | FocusAdjColorSel | Edge color.<br>(0: WHT, 1: YEL, 2: CYN, 3: RED, 4: BLU, 5: BLK) | 0 ~ 5 |

Table 19. Focus Assist Control

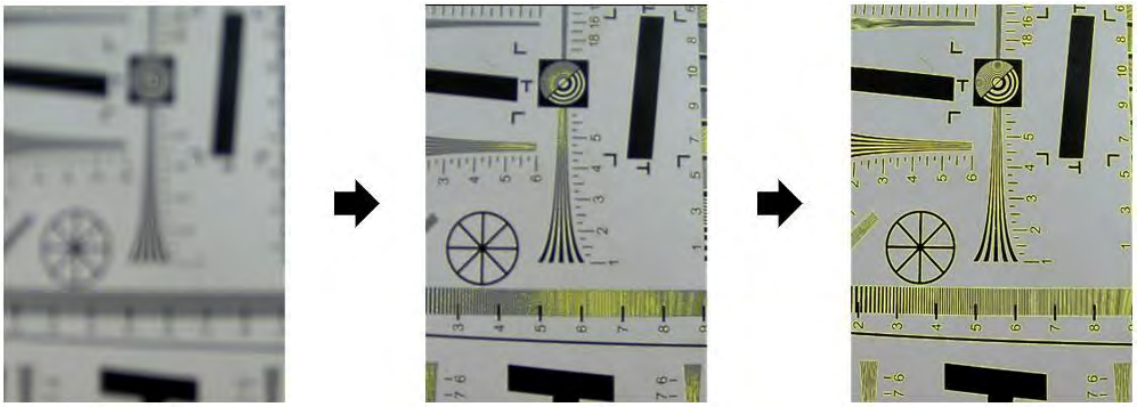


Figure 43 Focus assist example

### 11.14 Stat config

Set the statistic function configuration.

| ID | Feature | Description | Range |
|---|---|---|---|
| SWDS | StatWinDispSel | Display STAT window<br>(0: OFF, 1: AE, 2: AF, 3: AWB) | 0 ~ 3 |
| EWDS | AeWinDispNumSel | Display STAT AE window<br>select (bit [0] no use, [1] AE window 2, [2] AE window 3, [3] AE window 4, [4] AE window 5, [5] AE window 6) | 0 ~ 63 |
| FWDS | AfWinDispNumSel | Display STAT AF window<br>select (bit [0] AF window 1, [1] AF window 2) | 0 ~ 3 |
| WWDS | AwbWinDispOsdSel | Display STAT AWB white point<br>(0: OFF, 1: ON) | 0 ~ 1 |
| MWDS | MotionWinDispNumSel | Display STAT MOTION window<br>select (bit [0] Motion window 4, [1] Motion window 3, [2] Motion window 2, [3] Motion window 1) | 0 ~ 15 |

Table 20. Stat config Control

### 11.15 Backlight Compensation

Set the Auto Exposure Window. The slider in the web interface makes the detection window bigger or smaller, which means each of these parameters is rewritten when adjusted.

| ID | Feature | Description | Range |
|---|---|---|---|
| EWX2 | AeWinStartX2 | AE window 2 X start position, (4095 = default window) | 0 ~ 4095 |
| EWY2 | AeWinStartY2 | AE window 2 Y start position, (4095 = default window) | 0 ~ 4095 |
| EWW2 | AeWinSizX2 | AE window 2 X width size, (4095 = default window) | 0 ~ 4095 |
| EWH2 | AeWinSizY2 | AE window 2 Y height size, (4095 = default window) | 0 ~ 4095 |
| EWX3 | AeWinStartX3 | AE window 3 X start position, (4095 = default window) | 0 ~ 4095 |
| EWY3 | AeWinStartY3 | AE window 3 Y start position, (4095 = default window) | 0 ~ 4095 |
| EWW3 | AeWinSizX3 | AE window 3 X width size, (4095 = default window) | 0 ~ 4095 |
| EWH3 | AeWinSizX3 | AE window 3 Y height size, (4095 = default window) | 0 ~ 4095 |

Table 21. AE window Control

### 11.16 AE config

Set the AE slice, clip parameter.

| ID | Feature | Description | Range |
|---|---|---|---|
| ECS2 | AeConfSlice2 | AE window 2 Slice value<br>(0~255: fix slice value, 4095: set AE default operation) | 0 ~ 4095 |
| ECC2 | AeConfClip2 | AE window 2 Clip value<br>(0~255: fix clip value, 4095: set AE default operation) | 0 ~ 4095 |
| ECS3 | AeConfSlice3 | AE window 3 Slice value<br>(0~255: fix slice value, 4095: set AE default operation) | 0 ~ 4095 |
| ECC3 | AeConfClip3 | AE window 3 Clip value<br>(0~255: fix clip value, 4095: set AE default operation) | 0 ~ 4095 |

Table 22. AE config Control

## 11.17 AWB window

Set the AWB window.

| ID | Feature | Description | Range |
|---|---|---|---|
| WWX1 | AwbWinStartX | AWB window X start position, (4095 = default window) | 0 ~ 4095 |
| WWY1 | AwbWinStartY | AWB window Y start position, (4095 = default window) | 0 ~ 4095 |
| WWW1 | AwbWinSizeX | AWB window X width size, (4095 = default window) | 0 ~ 4095 |
| WWH1 | AwbWinSizeY | AWB window Y height size, (4095 = default window) | 0 ~ 4095 |

Table 23. AWB window Control

⚠ If the initial value is larger than 4095, it operates as a default window and stores the window size in the parameter.

## 11.18 AWB config

Set the AWB slice, clip parameter.

| ID | Feature | Description | Range |
|---|---|---|---|
| WCS1 | AwbConfSlice | AWB window Y Slice value<br>(0~255: fix slice value, 4095: default value) | 0 ~ 4095 |
| WCC1 | AwbConfClip | AWB window C Slice value<br>(0~255: fix clip value, 4095: default value) | 0 ~ 4095 |

Table 24. AWB config Control

⚠ If the initial value is larger than 4095, it operates as a default window and stores the window size in the parameter.

## 11.19 Black & White

Set the image to black and white settings. To set the camera to black & white mode set RGBB = 1 and TNMD = 2. To turn it back to default color mode, set RGBB = 0 and TNMD = 1.

| ID | Feature | Description | Range |
|---|---|---|---|
| RGBB | RGB_BYPASS | RGB Interpolator Bypass Mode (0: OFF, 1: ON) | 0 ~ 1 |
| TNMD | Tdn | DAY & NIGHT Filter Control Mode Settings<br>(0: AUTO, 1: COLOR, 2: B&W, 3: EXTERN)<br>**AUTO**<br>The mode deciding the day/night based on the AGC level as the decision criteria.<br>**COLOR**<br>It is the mode fixed to the manual mode to the daytime.<br>**B&W**<br>It is the mode fixed to the manual mode to the night time.<br>**EXTERN**<br>The mode which decides the day/night by using the external device. | 0 ~ 3 |

Table 25. AWB config Control

# 12. Support

## 12.1 Videology Help Center

This is your go-to resource for all Videology product support questions. The answer to your question may be at your fingertips. Please see the Videology Help Center for valuable information and resources.

## 12.2 Contact Videology Support

If you need any support on 801-IP-678-xyzp product, please fill out the form here to contact our support department:
https://www.videologyinc.com/contact-videology-service

## 12.3 Videology RMA Policy

To learn more about our Return Material Authorization (RMA) policy, please visit the RMA Policy page on our website: https://www.videologyinc.com/return-authorization

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