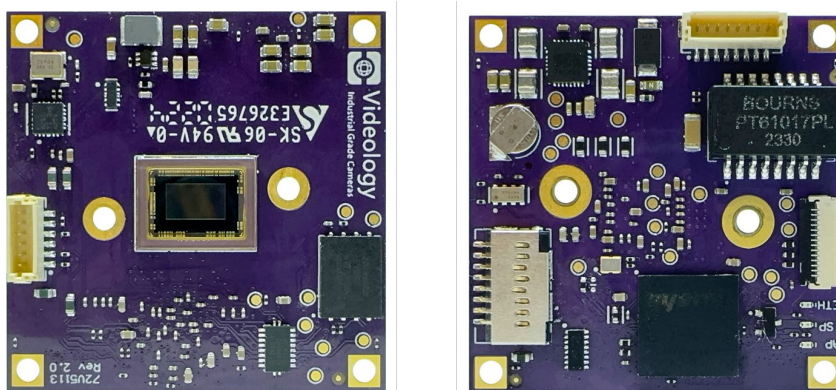


201-IP-462

2MP IP Camera, Sony IMX462

Revision G



Videology Industrial-Grade Cameras

Over 1 Million Cameras Worldwide

At Videology, we specialize in meeting the customized specification requirements of OEMs, large-scale integrators and other partners, which have resulted in the delivery of over 1 million embedded cameras worldwide. We are an ISO 9001-certified company headquartered in Mansfield, Massachusetts.

Our Brand Difference

Our deep commitment to the customer experience delivers performance excellence throughout the entire customer journey. This is Videology's brand difference and it's our company's most important priority in serving the needs of our customers across the globe.

Our Brand Promise

How do we support our brand difference? We do so with a sincere promise we make to every Videology customer as follows: We provide competence, attention to detail and personal care with a level of excellence that will delight every customer in every interaction. This is Videology's brand promise and it's been the key to our growth and success – from a small start-up more than 30 years ago to a global leader in today's imaging industry.

1. Prior to Using

Videology reserves the right to modify the information in this document as necessary and without notice. It is the user's responsibility to be certain they possess the most recent version of this document by visiting www.videologyinc.com, searching for the model number, and comparing revision letters on the respective document, located in the document's footer.

1.1 License Agreement (Software):

This Agreement states the terms and conditions upon which Videology Industrial-Grade Cameras (hereafter referred to as "Videology") offer to license to you the software together with all related documentation and accompanying items including, but not limited to, the executable programs, drivers, libraries, and data files associated with such software.

The Software is licensed, not sold, to you for use only under the terms of this Agreement.

Videology grants you, the purchaser, the right to use all or a portion of this Software provided that the Software is used only in conjunction with Videology's family of products.

In using the Software, you agree not to:

- Decompile, disassemble, reverse engineer, or otherwise attempt to derive the source code for any Product (except to the extent applicable laws specifically prohibit such restriction);
- Remove or obscure any trademark or copyright notices.

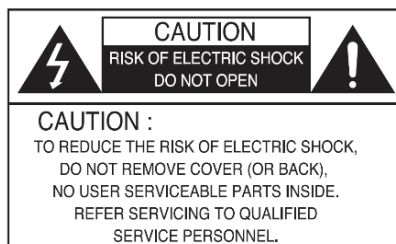
1.2 Limited Warranty (Hardware and Software):

ANY USE OF THE SOFTWARE OR HARDWARE IS AT YOUR OWN RISK. THE SOFTWARE IS PROVIDED FOR USE ONLY WITH VIDEOLOGY'S HARDWARE. THE SOFTWARE IS PROVIDED FOR USE "AS IS" WITHOUT WARRANTY OF ANY KIND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, VIDEOLOGY DISCLAIMS ALL WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, QUALITY AND FITNESS FOR A PARTICULAR APPLICATION OR PURPOSE. VIDEOLOGY IS NOT OBLIGATED TO PROVIDE ANY UPDATES OR UPGRADES TO THE SOFTWARE OR ANY RELATED HARDWARE.

1.3 Limited Liability (Hardware and Software):

In no event shall Videology or its Licensors be liable for any damages whatsoever (including, without limitation, incidental, direct, indirect, special or consequential damages, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use or inability to use this Software or related Hardware, including, but not limited to, any of Videology's family of products.

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	01/17/2024	Initial Creation
B	04/29/2024	Added Video Recording + Real time clock
C	07/23/2025	Web interface + VPTZ
D	10/08/2025	Update Web, HTTPS interface + various edits
E	01/08/2026	Adjusted Web to latest Firmware version 5.0.5
F	04/28/2026	Updated to align with the latest firmware version 5.1
G	06/26/2026	Added HTTPS API commands for firmware update Added Appendix A: PoE Adapter

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5. Introduction

This document will explain how to set up your 201-IP-462, an IP camera with the following highlighted features:

- 2 Megapixel, 60fps, 1/2.8" IMX462 CMOS Sony® STARVIS Sensor
- RTSP and WebRTC video streaming
 - o 3 configurable streams
 - o H.265, H.264 and MJPEG format support
- Fast Ethernet (also known as 10/100 Ethernet)
 - o Full duplex communication
- SD card storage
 - o 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 12 V DC power source and to a network that supports DHCP. Direct connection to a PC will not work unless the PC or another device provides DHCP service. Use a router with a DHCP server or connect through a DHCP-enabled local network switch.

6.2 Network Address

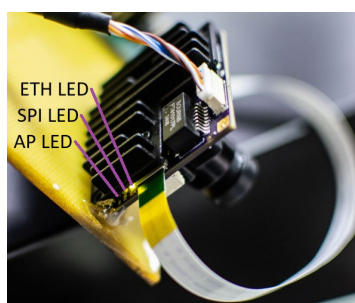


Figure 1 Indicator LEDs

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

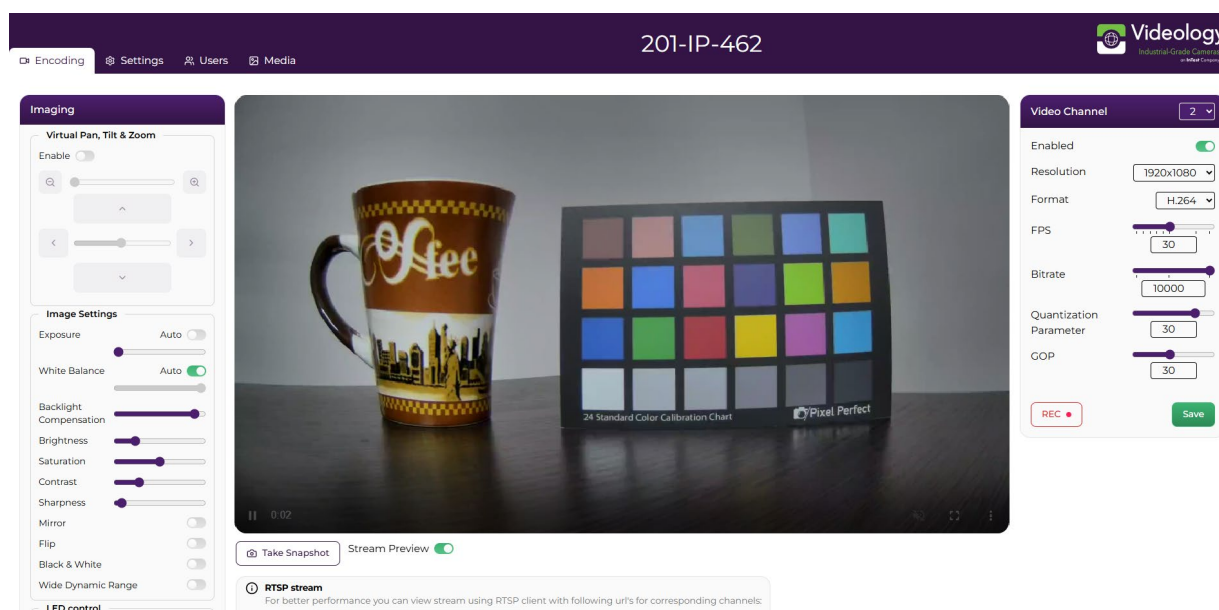


Figure 2 Web Interface

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.

Use the address with the camera's IP (in this example: 192.168.0.201) and the following suffix:

 **rtsp://192.168.0.201:554/rtsp_stream_00**

The last two digits after "stream_" determine which channel is displayed.

Channel 1: rtsp_stream_00

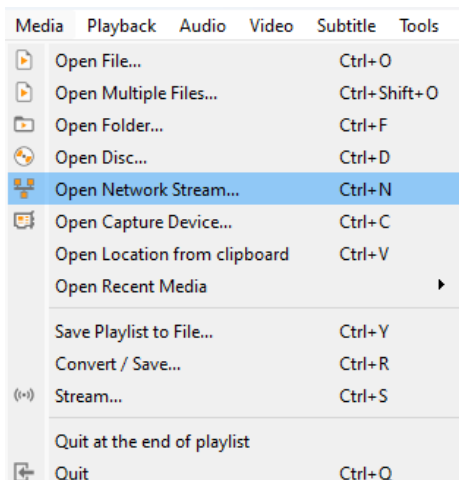
Channel 2: rtsp_stream_01

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.



Media

In VLC, open the "Media" menu and select "Open Network Stream..."

Figure 3 Media

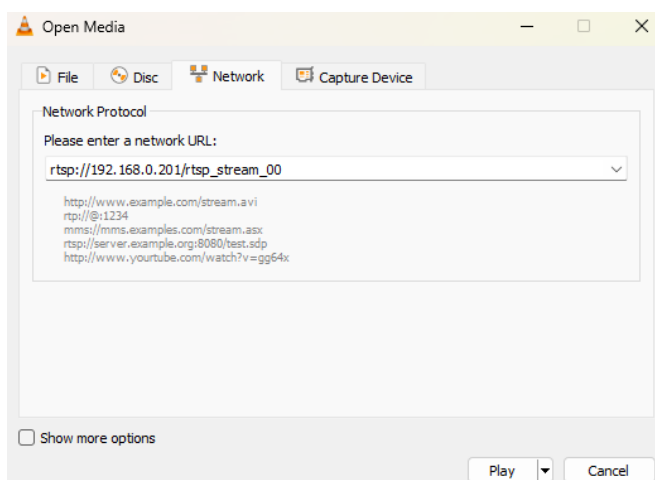


Figure 4 Network

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://192.168.0.201:554/rtsp_stream_00

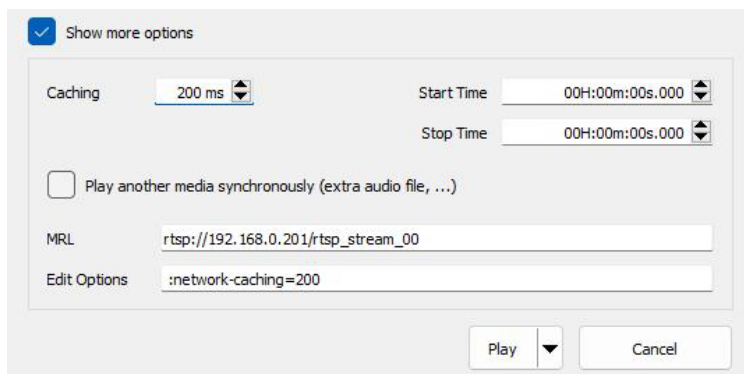


Figure 5 Show more options

Show more options

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

Caching

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

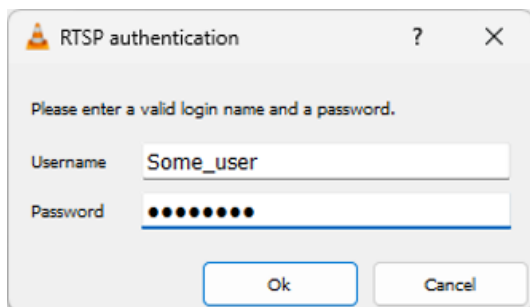
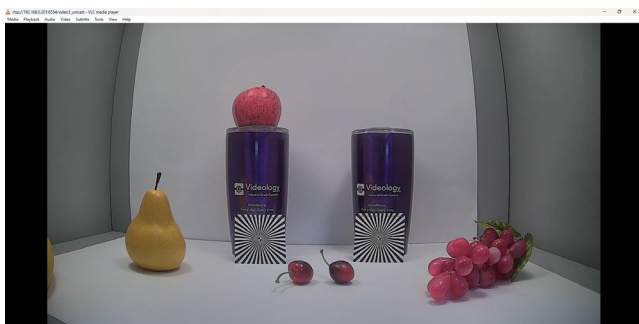


Figure 6 RTSP authentication

RTSP Authentication

Enter the user login and password to access the video stream. For instructions on creating the first account on a new camera, see section 7.1.

**Video stream**

After successful authentication, the video stream will open in VLC.

Figure 7 Caching

6.6 ONVIF Protocol

The accounts used to access the camera's web interface are the same accounts used for ONVIF. See Section 7.1 for instructions on creating an account during device initialization or Section 7.5 for managing existing accounts.

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/hubfs/software/sft-26002_201-IP-462.tar.gz

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

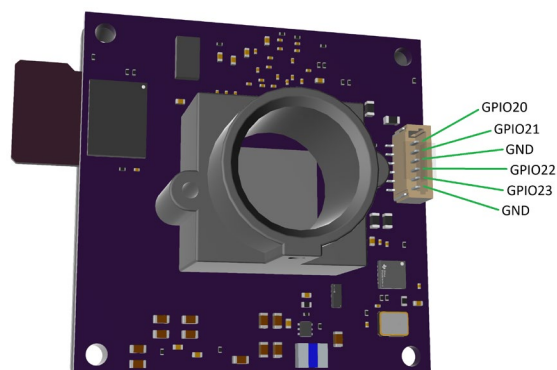


Figure 8 Pinout of connector J200

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

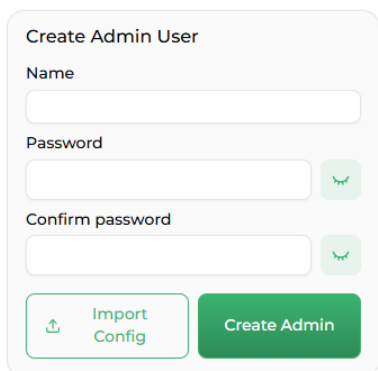
Table 1. Pinout of connector J200

 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 Create the Initial Admin Account



The 'Create Admin User' form contains three input fields: 'Name', 'Password', and 'Confirm password'. Each field has a green eye icon to the right for toggling visibility. At the bottom, there are two buttons: 'Import Config' (with an upload icon) and 'Create Admin'.

Figure 9 Create the initial admin

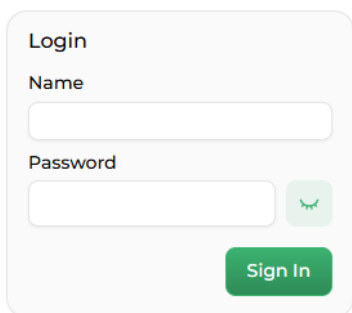
Open a web browser and enter the IP address of the camera (e.g., 192.168.0.201).

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 does not have any preconfigured user accounts. Therefore, on the first login, you will be prompted to create an administrator account or import a configuration file. For more information about the configuration file, see Section 7.4.5.

This administrator account, as well as any additional accounts created in the Users tab, will be used for ONVIF and RTSP authentication.

7.2 Login



The 'Login' form contains two input fields: 'Name' and 'Password'. The 'Password' field has a green eye icon to the right for toggling visibility. A green 'Sign In' button is located at the bottom right.

Figure 10 Login interface

To access the web interface, you need to use your account.

7.3 Encoding

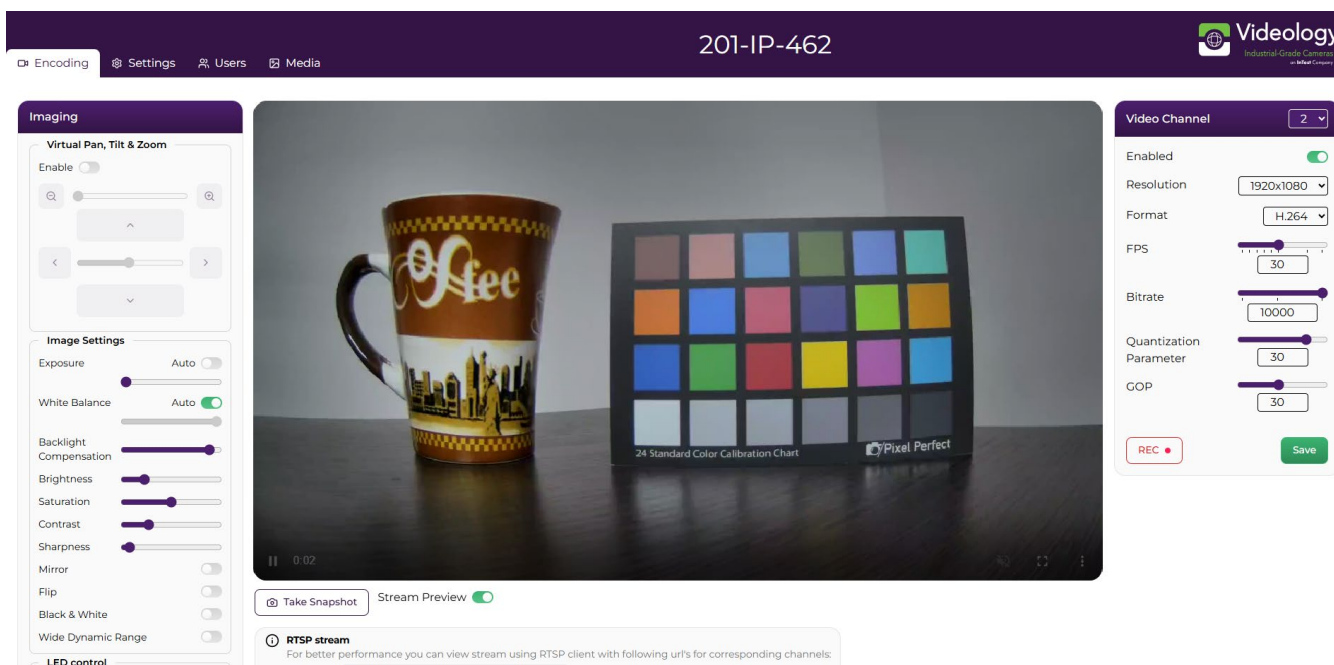
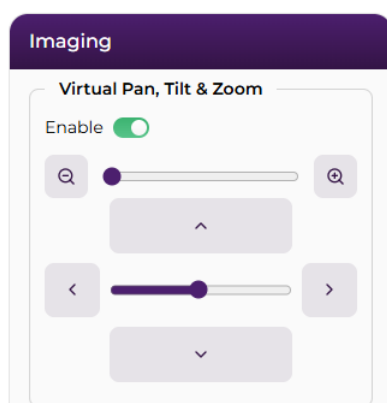


Figure 11 Web interface, Encoding

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.

7.3.1 Imaging Settings



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 12 Virtual Pan, Tilt &
Zoom interface

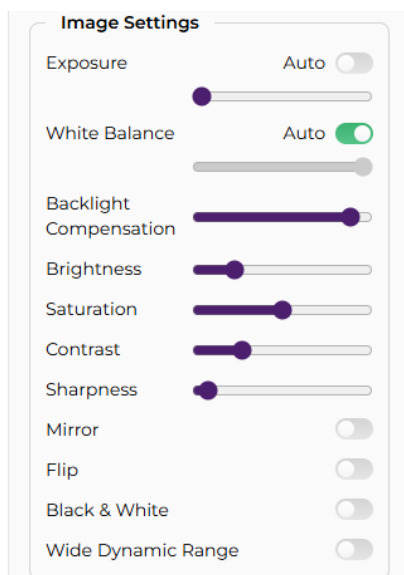


Figure 13 Image Settings

Exposure

Adjusts the amount of light reaching the sensor. AUTO will continue to adjust to different lighting conditions.

White Balance

Adjusts the color tones to make sure whites appear neutral under different lighting conditions. AUTO will continue to adjust to 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.

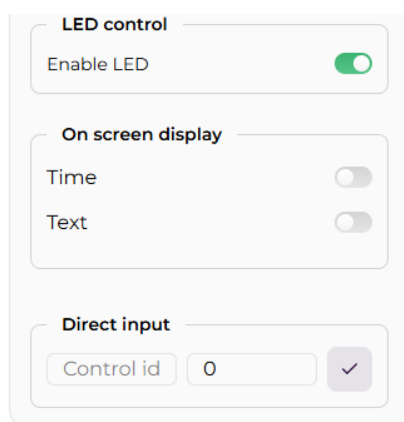


Figure 14 Additional configuration
setting

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 Display

Enables displaying the current date, time, and custom text on the video stream. When zoom is used, the OSD remains fixed to the image and may become partially or completely out of view.

Direct Input

Allows direct entry of commands and settings. See Appendix 11 for the command list.

7.3.2 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.

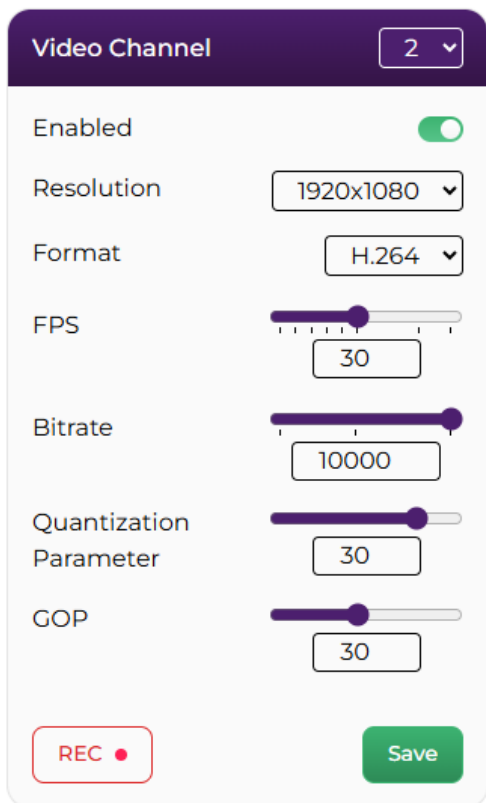


Figure 15 Encoding configuration interface

Channel

To choose which video stream to view (Channel 1, 2, or 3), use the drop-down list provided on the page.

Enabled

Allows you to enable or disable channels 2 and 3 to improve performance. After enabling or disabling of a channel the camera will be rebooted automatically.

Resolution

Select the desired resolution.

Format

It can be H.265, 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.

Quantization Parameter

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.

REC

To start recording video from the selected channel to the SD card, press the REC button. Press the button again to stop recording. Only one video channel can be recorded at a time.

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.



MJPEG 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.

7.3.3 Stream Preview

The stream preview allows you to view the channel selected in the 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.

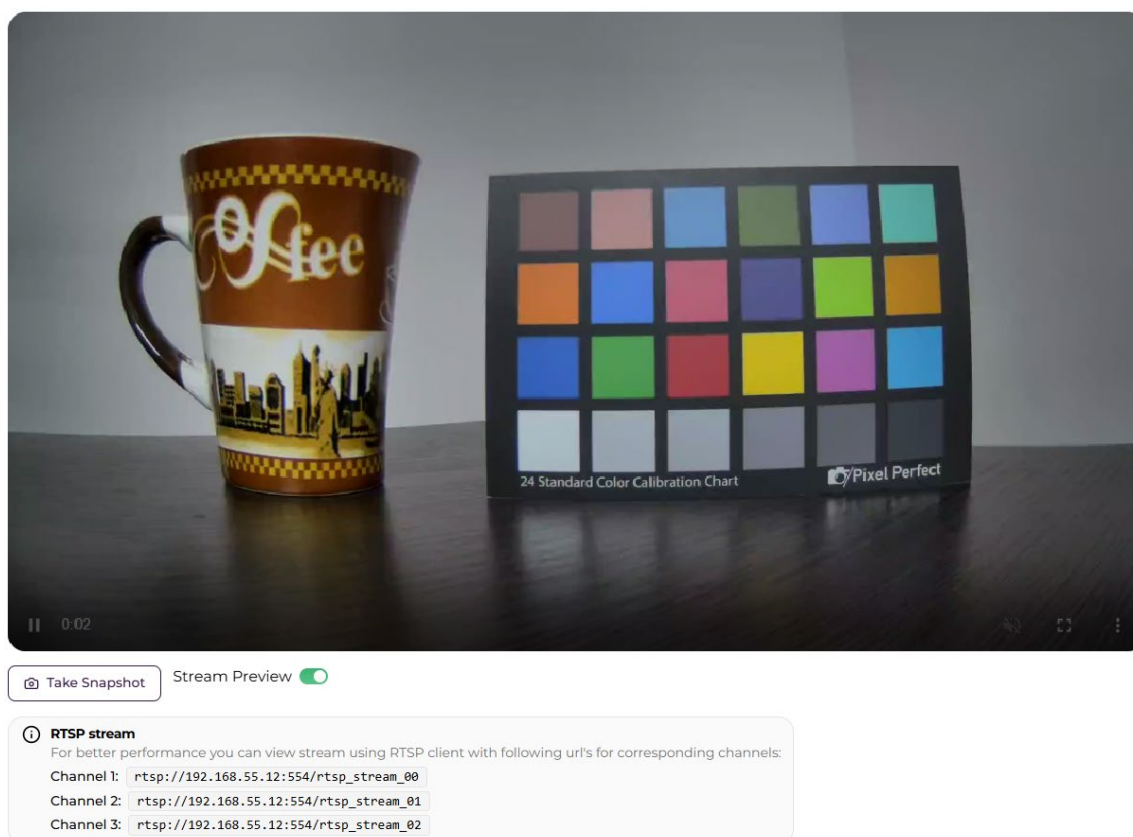


Figure 16 Stream preview and "Take Snapshot" button

Take Snapshot button

Pressing this button creates a snapshot. For more information about snapshots, see section 9.3.

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.

7.4 Settings

Figure 17 Settings

7.4.1 Network settings

Figure 18 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.

If you want to set a static IP address, you can use the built-in validation function. This function attempts to ping a device in the new network by sending ICMP requests to the IP address you provide.

If at least one successful ping response is received, the camera assumes that the new network configuration is valid. This helps ensure that there are no mistakes in the new IP address or network settings. If the ping fails, the camera will display a warning message.

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.

7.4.2 ONVIF Configuration

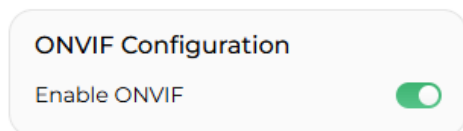
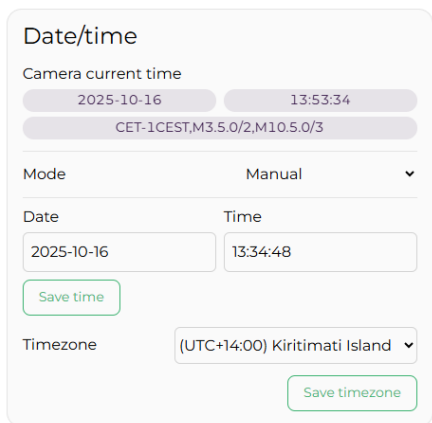


Figure 19 ONVIF configuration

Allows you to enable or disable ONVIF support. When ONVIF is disabled, the device will not appear in ONVIF device discovery, and ONVIF-based control or interaction will not be possible. ONVIF apps will still be able to display the video stream because it is provided over RTSP. When ONVIF is enabled, the camera will reboot.

7.4.3 Date and Time

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



The image shows a web interface section titled "Date/time". It displays the "Camera current time" as 2025-10-16 13:53:34 in CET-1CEST,M3.5.0/2,M10.5.0/3. Below this, there is a "Mode" dropdown menu set to "Manual". Under "Mode", there are two columns: "Date" and "Time". The "Date" field shows 2025-10-16 and the "Time" field shows 13:34:48. There is a "Save time" button below the time field. Below the date and time fields, there is a "Timezone" dropdown menu set to "(UTC+14:00) Kiribati Island" and a "Save timezone" button.

Figure 20 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 time servers that support the RFC 868 protocol. You can synchronize the time manually by clicking the 'Sync Time' button, or enable periodic automatic synchronization. Time servers can be added as needed. A time zone can also be selected 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.

7.4.4 Firmware Version & Update

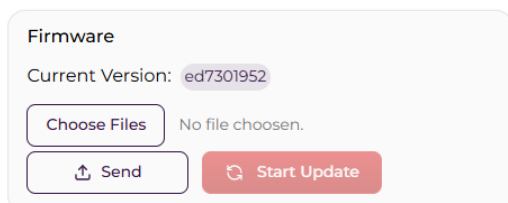


Figure 21 Firmware

Current version

Displays the current firmware version.

Firmware update

1. Before updating, export the current configuration to avoid losing your settings.
2. Click the 'Choose File' button and select the firmware update file from your computer. The update file can be downloaded from the Videology website:
https://www.videologyinc.com/hubfs/software/sft-26002_201-IP-462.tar.gz
3. Click the "Send" button to upload the file to the device.
4. After the file is uploaded, click 'Start Update' to begin the firmware update process.
5. Then, once the device has been updated and rebooted, import the previously saved configuration file to restore all settings.

7.4.5 Configuration Backup & Restore

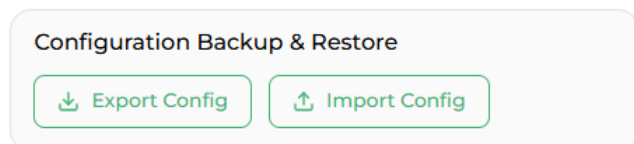


Figure 22 Configuration Backup & Restore interface

The camera configuration is exported and imported in JSON format. This file can be used to save the current camera settings and restore them later when needed. The exported configuration includes encrypted user information (jwt_secret, onvif.key, db.key), network settings, imaging settings, encoder settings, OSD configuration, time settings, NTP servers, and time zone.

This option is especially useful before performing a firmware update, since all settings are erased during the update process. It also allows for quick configuration of multiple devices.



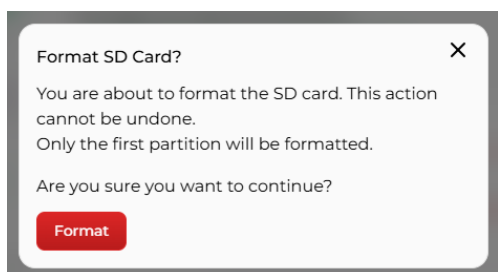
The configuration file contains sensitive information and should be stored and transferred securely. Please follow your organization's IT guidelines for storing and transferring this information.

7.4.6 Format SD Card



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

Figure 23 Format SD card button



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

Figure 24 Confirm formatting of the SD card

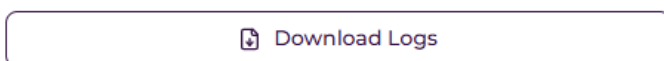
7.4.7 Reboot Camera



Press this button to restart the camera.

Figure 25 Reboot camera button

7.4.8 Download Logs



Press this button to download an archive containing the camera debug logs.

Figure 26 Download Logs

7.5 Users

This page is for user management.

201-IP-462

Encoding Settings **Users** Media

Name: Role: [Log Out](#)

New password: Confirm password: [Update](#)

[Add User](#)

Name	Role	
Some_user	Administrator	✕
Some_user_2	Operator	✕
Some_viewer_3	Viewer	✕

HEADQUARTERS LOCATION
Videology Industrial Grade Cameras
35 Hampden Road
Mansfield, MA 02048
United States of America

Figure 27 Users management

7.5.1 Current User

Name: Role: [Log Out](#)

New password: Confirm password: [Update](#)

Figure 28 Current user

This section displays the current username and role, along with a 'Log Out' button. On the right side of the page, you can enter and confirm a new password using two input fields, and then save the updated password by pressing the "Update" button.

7.5.2 User Level

The system includes several user roles, each offering different access permissions. Below are a description of each role and its associated capabilities.

Operations	Admin	Operator	Viewer
VPTZ	Edit	Edit	View
Image Settings	Edit	Edit	View
Focus Settings	Edit	Edit	View
LED Control	Edit	Edit	View
On Screen Display	Edit	Edit	View
Direct Input	Edit	Edit	View
Stream Preview	Edit	Edit	View
Preview On/Off	Edit	Edit	Edit

Take Snapshot	Yes	Yes	Yes
RTSP Stream Links	View	View	View
Channel Selection	Edit	Edit	Edit
Channel Settings	Edit	Edit	View
Channel On/Off	Edit	Edit	View
Start/Stop Recording	Yes	Yes	No

Table 2. Encoding Tab Permissions

Operations	Admin	Operator	Viewer
Network	Edit	View	View
Date/Time	Edit	View	View
Save Settings	Edit	View	View
Firmware Update	Yes	No	No
Current Version	View	View	View
Format SD Card	Yes	No	No
Reboot Camera	Yes	No	No
Download Logs	Yes	No	No

Table 3. Settings Tab Permissions

Operations	Admin	Operator	Viewer
Log Out	Yes	Yes	Yes
Update Password	Yes	Yes	Yes
Users List	Yes	No	No
Add User	Yes	No	No
Edit User	Yes	No	No
Delete User	Yes	No	No

Table 4. Users Tab Permissions

Operations	Admin	Operator	Viewer
Images Tab	View	View	View
Images List	View	View	View
Download Image	Yes	Yes	Yes
Delete Image	Yes	No	No
Take Snapshot	Yes	Yes	Yes

Videos Tab	View	View	View
Videos List	View	View	View
Download Video	Yes	Yes	Yes
Delete Video	Yes	No	No

Table 5. Media Tab Permissions

Operations	Admin	Operator	Viewer
Issue Token	Yes	Yes	No
Reveal Own Token	Yes	Yes	Yes
Reveal Any Token	Yes	No	No

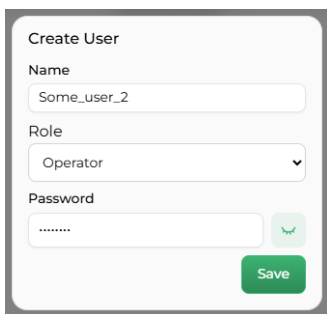
Table 6 Token Permissions

7.5.3 Add User



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

Figure 29 "Add user" button



Enter a username, password, and select a role in the pop-up window. The password must be at least 8 characters long. Click the green "Save" button to apply the changes.

Figure 30 User creation

7.5.4 User Table

This section displays information about all user accounts and provides options for deleting them.

Name	Role	
Some_user	Administrator	
Some_user_2	Operator	
Some_viewer_3	Viewer	

Figure 31 User table

Name. Lists the usernames.

Role. Shows the access level assigned to each user.

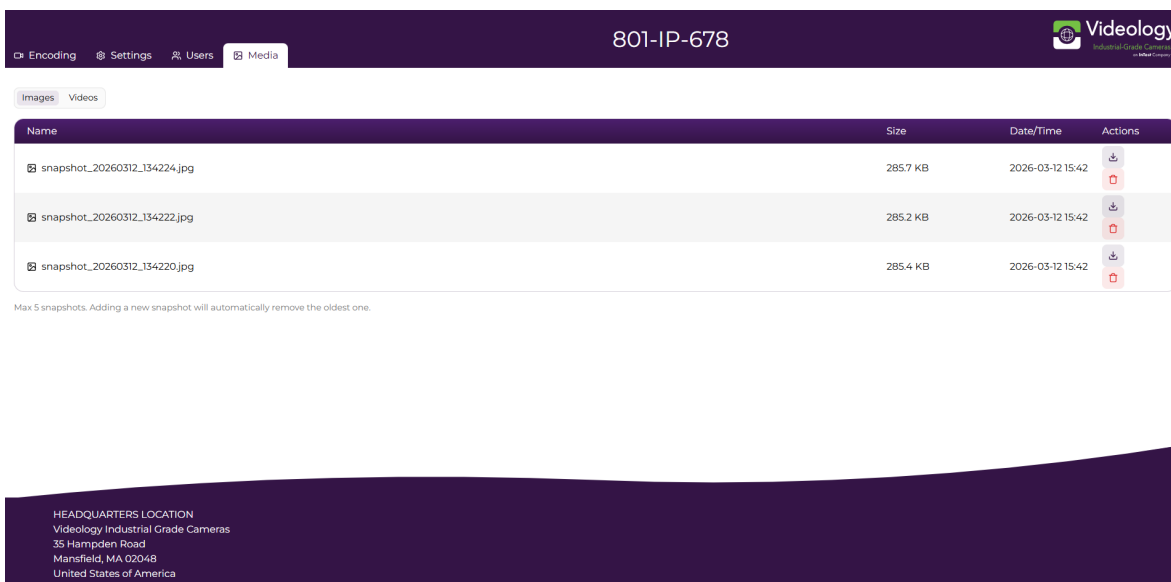
Delete. Removes the user account.

7.6 Media

In this tab, you can manage all available files. For each file, you can view its name, size, the time it was saved, and you also have the option to download or delete it.



"Date/Time" – displays the file's save time according to your local timezone (for example, the timezone of the laptop you are using to access the Web Interface). At the same time, the camera uses its own configured timezone when encoding timestamps in the filenames.



801-IP-678

Encoding Settings Users **Media**

Images Videos

Name	Size	Date/Time	Actions
snapshot_20260312_134224.jpg	285.7 KB	2026-03-12 15:42	 
snapshot_20260312_134222.jpg	285.2 KB	2026-03-12 15:42	 
snapshot_20260312_134220.jpg	285.4 KB	2026-03-12 15:42	 

Max 5 snapshots. Adding a new snapshot will automatically remove the oldest one.

HEADQUARTERS LOCATION
 Videology Industrial Grade Cameras
 35 Hampden Road
 Mansfield, MA 02048
 United States of America

Figure 32 Media

7.6.1 Images

Images Videos

Name	Size	Date/Time	Actions
☒ snapshot_20260312_134224.jpg	285.7 KB	2026-03-12 15:42	 
☒ snapshot_20260312_134222.jpg	285.2 KB	2026-03-12 15:42	 
☒ snapshot_20260312_134220.jpg	285.4 KB	2026-03-12 15:42	 

Max 5 snapshots. Adding a new snapshot will automatically remove the oldest one.

Figure 33 File Manager for Images

This section contains snapshots captured from the video stream. For more information, see Section 9.3.

7.6.2 Videos

Images Videos

Name	Size	Date/Time	Actions
 2026-03-12		2026-03-12 15:57	
 logs		2026-03-01 18:49	
 2026-02-25		2026-02-25 15:00	

Figure 34 File Manager

In this section you can find the root of the SD card. Here you can browse the directory structure with video folders and other files stored on the SD card.

Videos are organized by date, and each date folder contains subdirectories sorted by hour. Video files are stored inside these subdirectories. For more details about recording and video storage, see chapter 9.

8. HTTPS API

8.1 General Information About Using HTTPS

You can control the camera using the HTTPS API. This chapter provides usage examples with cURL¹, but you can use any other tool or library capable of sending HTTPS requests. This API permits the integration of the camera into your application written in any programming language that supports HTTPS communication.

All examples in this section use the IP address 192.168.0.201. When adapting the examples for your environment, make sure to replace this IP address with the actual address of your camera.

8.2 Authentication

Bootstrap – The process of creating the initial administrator account on a camera, either on a new device or after performing a factory reset.

To get the status (the response will show whether you need to perform bootstrap or not):

```
curl -k https://192.168.0.201/api/v1/auth/status
```

If no user created yet:

```
{
  "success": true,
  "message": "Create first admin user",
  "data": {
    "bootstrap_required": true,
    "version": "1.0.0"
  },
  "timestamp": 1776437056
}
```

If user is already created, continue with Token Generation:

```
{
  "success": false,
  "message": "Bootstrap not required",
  "error": {
    "code": "BOOTSTRAP_NOT_REQUIRED",
    "details": "Users already exist in the system"
  },
  "timestamp": 1776435864
}
```

There are two ways to bootstrap the system:

- (1) Create a new admin user (use a username and password to create the first admin user; all settings will be set to their defaults):

¹ Windows: PowerShell 7.6 and up, use backtick (`) character instead of backslash (\)

```
curl -k -X POST https://192.168.0.201/api/v1/auth/bootstrap \
-H "Content-Type: application/json" \
-d '{"username": "admin", "password": "12345678"}'
```

Response:

```
{
  "success": true,
  "message": "Admin user created successfully",
  "data": {
    "username": "admin",
    "role": "admin"
  },
  "timestamp": 1776436379
}
```

- (2) Restore from a saved configuration (include the file path after @; set X-Include-Network to true to include network settings, or false to skip them):

```
curl -k -s -X POST 'https://192.168.0.201/api/v1/auth/bootstrap/import' \
-H "Content-Type: application/json" \
-H "X-Include-Network: true" \
-d @<path>/camera-config-2026-06-04.json
```

Response:

```
{"success": true, "errors": []}
```

8.3 Token Generation

Most requests also require authentication using an API token.

You can obtain this token by sending a login request with a username and password:

```
curl -k -X POST https://192.168.0.201/api/v1/auth/issue-token \
-H "Content-Type: application/json" \
-d '{"username": "admin", "password": "12345678"}'
```

This request returns a response like the following:

```
{
  "success": true,
  "message": "API token issued",
  "data": {
    "token":
"05f9cbb834eeb768b0cd13f6a41e805ad9fea433a6b35736d615d9470d8cee54",
    "key_id": "05f9cbb834eeb768",
    "username": "admin",
    "role": "admin",
    "expires_at": null,
    "created_at": 1773920405
  },
  "timestamp": 1773920405
}
```

This token uses the "X-API-Key" authentication type. Here is an example of a request that includes the token (the token is shortened in the middle due to its length):

```
curl -k -G "https://192.168.0.201/api/v1/gpio/pins/led" \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key 05f9cbb...cee54" \
-d '{"request":"get","gpio":"led"}'
```

In Windows PowerShell (version 7.6 or later), the token can be assigned to a variable by executing the following code:

```
$ip = "192.168.0.201"
$username = "admin"
$password = "12345678"

$tokenUri = "https://$ip/api/v1/auth/issue-token"
$body = @{
    username = $username
    password = $password
} | ConvertTo-Json

$response = Invoke-WebRequest -Uri $tokenUri -Method Post -Body $body `
    -ContentType "application/json" -SkipCertificateCheck
$token = ($response.Content | ConvertFrom-Json).data.token
Write-Host "Token: $token"
```

In all following examples, replace the IP address with your camera's IP address (or `$ip`) and `<token>` with your actual token (or `$token`). Do not remove or modify the token type name "X-API-Key".

In the examples, the parameters that you may need to change will be highlighted. The remaining parts of the requests should generally not be modified.

8.4 Imaging

8.4.1 Video Configuration

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

To set the video brightness level (EBTD — the brightness parameter in the HTTPS API):

```
curl -k -G https://192.168.0.201/api/v1/imaging/controls \
-H "Authorization: X-API-Key $token" \
-d 'EBTD=255'
```

To read the current value:

```
curl -k -G https://192.168.0.201/api/v1/imaging/controls \
-H "Authorization: X-API-Key $token" \
-d 'EBTD'
```

Every configuration command follows the same structure. The full list of input arguments is in the last section of this document, [Appendix: list of configuration IDs](#).

8.4.2 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.

To set the value backlight compensation ("value":50 – the value that you want to set for backlight compensation):

```
curl -k -G https://192.168.0.201/api/v1/imaging/blc \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key $token" \
  -d '{"request":"set","value":50}'
```

To read the current value:

```
curl -k -G https://192.168.0.201/api/v1/imaging/blc \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key $token" \
  -d '{"request":"get"}'
```

8.5 Encoders

For each channel, the following parameters should be defined:

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

See section 7.3.2 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 axes.

Width	Height	Channel support
1920	1080	1, 2
1280	720	1, 2, 3
640	480	3

Table 7. Video resolution

To get encoder capabilities:

```
curl -k -G https://192.168.0.201/api/v1/encoders/capabilities \
  -H "Authorization: X-API-Key $token"
```

To get actual encoder settings:

```
curl -k -G https://192.168.0.201/api/v1/encoders \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key $token" \
  -d "{}"
```

To apply new encoder settings:

```
curl -k -G https://192.168.0.201/api/v1/encoders \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key $token" \
  -d '
[{"enabled":true,"bitrate":4000,"quality":35,"gov":30,"encoding":"H.264","height":1080,"width":1920,"fps":30},
{"width":1280,"height":720,"encoding":"H.264","fps":15,"bitrate":1000,"gov":45,"quality":35,"enabled":true},
{"enabled":false,"bitrate":500,"quality":50,"gov":30,"encoding":"H.264","height":360,"width":640,"fps":10}]'
```

8.6 GPIO

8.6.1 AP LED

To get the AP LED value:

```
curl -k -G "https://192.168.0.201/api/v1/gpio/pins/led" \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key <token>" \
  -d '{"request":"get","gpio":"led"}'
```

To set the AP LED value (0 – off, 1 – on):

```
curl -k -G "https://192.168.0.201/api/v1/gpio/pins/led" \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key <token>" \
  -d '{"request":"set","gpio":"led","value":1}'
```

8.6.2 Snapshot

To make a snapshot:

```
curl --globoff -k -X POST \
'https://192.168.0.201/api/v1/gpio/snapshot?{"request":"set","gpio":"snapshot"}' \
  -H "Authorization: X-API-Key <token>" \
  -d ''
```

8.7 On Screen Time

Enables the display of the current date and time on the video stream. When zoom is used, the OSD remains fixed to the image and may become partially or completely out of view.

Value	Possible Values	Description
-------	-----------------	-------------

action	start, stop, status	Defines what action you want to perform.
target	time, text	Selects which OSD block the action applies to.
text	Any text	The text that will be displayed on the OSD.

Table 8. OSD input arguments

To get the OSD status:

```
curl -k -G https://192.168.0.201/api/v1/osd/time \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action": "status"}'
```

To start or stop the on-screen time display:

```
curl -k -G https://192.168.0.201/api/v1/osd/time \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action": "start", "target": ["time"]}'
```

To enable and configure text on the OSD:

```
curl -k -G https://192.168.0.201/api/v1/osd/time \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"text": "hello", "coordinates": [1,2], "action": "start"}'
```

To disable OSD text:

```
curl -k -G https://192.168.0.201/api/v1/osd/time \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action": "stop", "target": ["text"]}'
```

To disable both time and text on the OSD:

```
curl -k -G https://192.168.0.201/api/v1/osd/time \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action": "stop", "target": ["time", "text"]}'
```

8.8 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 7.3.1 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.

The input argument is depicted as a letter, for example -z. After the letter, the value (α) is inserted. For example, for setting the zoom speed to 1: -z1.

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

Table 9. VPTZ input arguments

See below an example HTTPS command string for the VPTZ function panning left (without stopping):

```
curl --globoff -k -X POST \
'https://192.168.0.201/api/v1/ptz/passthrough?cmd=-p-1' \
-H "Authorization: X-API-Key $token" \
-d ''
```

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

1. cmd=-z1
2. cmd=-s
3. cmd=-p1
4. cmd=-s



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

8.9 Network

8.9.1 Hostname

To get the hostname:

```
curl -k -G https://192.168.0.201/api/v1/network/hostname
-H "Content-Type: application/json"
-H "Authorization: X-API-Key <token>"
-d '{"hostname":null}'
```

To set the hostname (replace "cam-test" with your desired hostname):

```
curl -k -G https://192.168.0.201/api/v1/network/hostname
-H "Content-Type: application/json"
-H "Authorization: X-API-Key <token>"
-d '{"hostname": "cam-test"}'
```

8.9.2 MAC Address

To get the MAC address:

```
curl -k -G https://192.168.0.201/api/v1/network/mac  
-H "Authorization: X-API-Key <token>"
```

8.9.3 IP Address

To get the IP address:

```
curl -k -G https://192.168.0.201/api/v1/network/address  
-H "Content-Type: application/json"  
-H "Authorization: X-API-Key <token>"  
-d '{"address":null}'
```

To set the IP address (set new IP address and gateway):

```
curl -k -G https://192.168.0.201/api/v1/network/address  
-H "Content-Type: application/json"  
-H "Authorization: X-API-Key <token>"  
-d '{"address":"192.168.0.120/24", "default_gateway":"192.168.0.1"}'
```

8.9.4 Gateway Address

To get the gateway address:

```
curl -k -G https://192.168.0.201/api/v1/network/gateway  
-H "Content-Type: application/json"  
-H "Authorization: X-API-Key <token>"  
-d '{"DefaultGateway":null}'
```

To set the gateway:

```
curl -k -G https://192.168.0.201/api/v1/network/gateway  
-H "Content-Type: application/json"  
-H "Authorization: X-API-Key <token>"  
-d '{"DefaultGateway":"192.168.0.1"}'
```

8.9.5 DHCP

To get the DHCP status:

```
curl -k -G https://192.168.0.201/api/v1/network/dhcp  
-H "Content-Type: application/json"  
-H "Authorization: X-API-Key <token>"  
-d '{"DHCP":null}'
```

To enable DHCP:

```
curl -k -G https://192.168.0.201/api/v1/network/dhcp  
-H "Content-Type: application/json"  
-H "Authorization: X-API-Key <token>"  
-d '{"DHCP":true}'
```

For disabling DHCP just manually change the IP address.

8.9.6 DNS

To get DNS information:

```
curl -k -G https://192.168.0.201/api/v1/network/dns \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key <token>" \
  -d '{"DNS":null}'
```

8.9.7 Protocols

To get protocol status information:

```
curl -k -G https://192.168.0.201/api/v1/network/protocols \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key <token>" \
  -d '{"NetworkProtocols":null}'
```

8.10 Date and Time

To get the time:

```
curl -k -G https://192.168.0.201/api/v1/time/system \
  -H "Authorization: X-API-Key <token>"
```

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

```
curl -k -X PUT https://192.168.0.201/api/v1/time/system \
  -H "Authorization: X-API-Key <token>" \
  -d 'date=2026-01-01&time=12:34:56'
```



Before setting the date and time, you must disable the time server.

To get info about the time servers:

```
curl -k -G https://192.168.0.201/api/v1/time/ntp \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key <token>" \
  -d '{"action":"get"}'
```

To set time servers (the "servers" parameter must contain a JSON list of servers that support the RFC 868 protocol):

```
curl -k -G https://192.168.0.201/api/v1/time/ntp \
  -H "Content-Type: application/json" \
  -H "Authorization: X-API-Key <token>" \
  -d '{"action":"set-servers", "servers":["pool.ntp.org", "time.google.com"]}'
```



Time servers must support the RFC868 protocol.

To enable or disable time synchronization with the time server ("enable" – on, "disable" – off):

```
curl -k -G https://192.168.0.201/api/v1/time/ntp \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action":"enable"}'
```

To synchronize with the time server (specify the desired time server instead of time.iem.it) :

```
curl --globoff -k -X POST \
'https://192.168.0.201/api/v1/time/ntp/sync>{"action":"sync", "server":"time.iem.it"}' \
-H "Authorization: X-API-Key <token>" \
-d ''
```

8.11 Recording Video

To get status:

```
curl -k -G https://192.168.0.201/api/v1/recording/status \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key $token" \
-d '{"request":"get", "value":"status"}'
```

To start recording (set the desired channel in "channel": "2"):

```
curl --globoff -k -X POST \
'https://192.168.0.201/api/v1/recording/session>{"request":"set", "value":"start", "channel":"2"}' \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key $token" \
-d ''
```

Response: {"ok": true, "isRecording": true, "channel": 2}

To stop recording:

```
curl --globoff -k -X POST \
'https://192.168.0.201/api/v1/recording/session>{"request":"set", "value":"stop"}' \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key $token" \
-d ''
```

Response: {"isRecording": false, "ok": true}

8.12 Storage

To get the status:

```
curl -k -G https://192.168.0.201/api/v1/storage/sd/status \
-H "Authorization: X-API-Key <token>"
```

Response SD card present: {"success": true, "status": "idle"}

Response no SD card: {"success": true, "status": "not_present"}

To format the SD card:

```
curl -k -X POST https://192.168.0.201/api/v1/storage/sd/format \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"stop_streamer":true}'
```

Response: {"status": "formatting", "ok": true}

To get the list of videos (in "path" you must specify the folder path):

```
curl -k -G https://192.168.0.201/api/v1/storage/files \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action": "list", "files": "video", "path": "2026-03-19/11"}'
```

To delete a video (in "name" you must specify the full path and file name):

```
curl -k -G https://192.168.0.201/api/v1/storage/files \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action": "delete", "files": "video", "name": "2026-03-19/11/ch2 1280x720x15 2026-03-19 11-42-23.mp4"}'
```

To get the list of snapshots:

```
curl -k -G https://192.168.0.201/api/v1/storage/files \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action": "list", "files": "snapshot"}'
```

To delete a snapshot (in "name" you must specify the name of the snapshot):

```
curl -k -G https://192.168.0.201/api/v1/storage/files \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"action": "delete", "files": "snapshot", "name": "snapshot 20260101 164840.jpg"}'
```

8.13 System

8.13.1 Reboot

To reboot:

```
curl -k -X POST "https://192.168.0.201/api/v1/system/reboot" \
-H "Authorization: X-API-Key $token"
```

8.13.2 Firmware Version

To get the firmware version:

```
curl -k -G "https://192.168.0.201/api/v1/system/version" \  
-H "Authorization: X-API-Key $token"
```

8.13.3 Firmware Update

To upload archive with new firmware (include the file path after the "@"):

```
curl --globoff -k -X POST \  
'https://192.168.0.201/api/v1/firmware/upload?{"filename": "sft-26002 201-IP-462.tar.gz"}' \  
-H "Content-Type: application/octet-stream" \  
-H "Authorization: X-API-Key $token" \  
--data-binary "@<path>/sft-26002 201-IP-462.tar.gz"
```

To check status of uploaded firmware:

```
curl -k -X GET "https://192.168.0.201/api/v1/firmware/upload/status" \  
-H "Authorization: X-API-Key $token"
```

To apply uploaded firmware update:

```
curl -k -X GET 'https://192.168.0.201/api/v1/firmware/update' \  
-H "Authorization: X-API-Key $token"
```

8.14 User Management

To get the list of users:

```
curl -k -G "https://192.168.0.201/api/v1/users/list" \  
-H "Authorization: X-API-Key <token>"
```

To create a new user (set "username" – user login, 3–32 characters; "password" – user password, at least 8 characters; "role" – assigned access level: "admin", "operator", or "viewer"):

```
curl -k -X POST "https://192.168.0.201/api/v1/users/create" \  
-H "Content-Type: application/json" \  
-H "Authorization: X-API-Key <token>" \  
-d '{ "username": "someone", "password": "12345678", "role": "admin" }'
```

To delete a user (set "username" – the user account you want to delete):

```
curl -k -X DELETE "https://192.168.0.201/api/v1/users/delete" \  
-H "Content-Type: application/json" \  
-H "Authorization: X-API-Key <token>" \  
-d '{ "username": "someone" }'
```

To update a user (set "username" – the user you want to modify, and specify the new role and new password):

```
curl -k -X PATCH "https://192.168.0.201/api/v1/users/update" \  
-H "Content-Type: application/json" \  
-H "Authorization: X-API-Key <token>" \  
-d '{ "username": "someone", "role": "viewer", "password": "12345678" }'
```

To set a new password (set "username" – the user you want to change the password for, and "password" – the new password):

```
curl -k -X PATCH "https://192.168.0.201/api/v1/users/set-password" \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"username": "someone", "password": "12345678"}'
```

8.15 Tokens

To get the list of tokens for a user (set "username" – the username for which you want to get the list of tokens):

```
curl -k -G "https://192.168.0.201/api/v1/tokens/list" \
-H "Authorization: X-API-Key <token>" \
-d 'username=Some user'
```

To create a token for a user (set "username" – the username for which you want to create a token):

```
curl -k -X POST "https://192.168.0.201/api/v1/tokens/create" \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"username": "Some user"}'
```

To reveal a token of a user (set "key_id" – the ID of the token you want to reveal):

```
curl -k -X POST "https://192.168.0.201/api/v1/tokens/reveal" \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"key_id": "b18a60341c232590"}'
```

To revoke a token of a user (a user can have only one token, so you can revoke it either by specifying the username or by providing the token's key_id):

```
curl -k -X POST https://192.168.0.201/api/v1/tokens/revoke \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"username": "Some user"}'
```

Or:

```
curl -k -X POST https://192.168.0.201/api/v1/tokens/revoke \
-H "Content-Type: application/json" \
-H "Authorization: X-API-Key <token>" \
-d '{"key_id": "b18a60341c232590"}'
```

8.16 Other Features

8.16.1 ONVIF

To enable or disable ONVIF ("EnableOnvif": 1 – on, 0 – off):

```
curl --globoff -k -X POST \
'https://192.168.0.201/api/v1/onvif/dispatch?{"type": "set", "data": "EnableOnvif", "EnableOnvif": 0}' \
-H "Content-Type: application/json"
```

```
-H "Authorization: X-API-Key <token>" \  
-d ''
```

8.16.2 Logs

To download logs (write your desired archive name after "-o"):

```
curl -k -G https://192.168.0.201/api/v1/logs/download \  
-H "Authorization: X-API-Key <token>" \  
-o logs.tar
```

8.16.3 Configuration Backup & Restore

To export the config:

```
curl -k -G https://192.168.0.201/api/v1/config/export \  
-H "Authorization: X-API-Key <token>"
```

Best rename output file to camera-config-yyyy-mm-dd.json or any other name.

To import the config (include the file path after @; set X-Include-Network to true to include network settings, or false to skip them):

```
curl -k -s -X POST 'https://192.168.0.201/api/v1/config/import' \  
-H "Authorization: X-API-Key $token" \  
-H "Content-Type: application/json" \  
-H "X-Include-Network: true" \  
-d "@<path>/camera-config-2026-06-04.json"
```

Response:

```
{"warnings": ["Network: skipped (include_network=false)", "success": true,  
"errors": []}
```

9. Recording

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

You can start recording through the Web Interface or via the HTTPS API. The recorded video files can be accessed through the Web Interface, the FTP server, or directly from the SD card.

Video files on the SD card are organized by date and time. 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.



In case of an unexpected camera shutdown or SD card removal, the last two minutes of recording will be lost.

The camera uses loop recording. 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 10 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 10. 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 Snapshot

You can create snapshots through the Web Interface, via the HTTPS API, or using a GPIO trigger. Created snapshots can be found in the “Media” section of the Web Interface or on the FTP server.

The camera supports external snapshot triggering through GPIO22 and GND. By connecting these two pins, 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 the pin layout.



The snapshot will be taken from the channel with the highest resolution.



The camera stores snapshots in its internal memory, with a maximum capacity of 5 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 snapshots and videos, connect to the camera via FTP using the following credentials:

Username: ftpuser

Password: (leave empty)

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.

9.5 Clear SD Card

Use the Web Interface as described in section 7.4.6.

Alternatively, perform the operation via HTTPS, following the instructions in section 8.12.

10. Dimensions

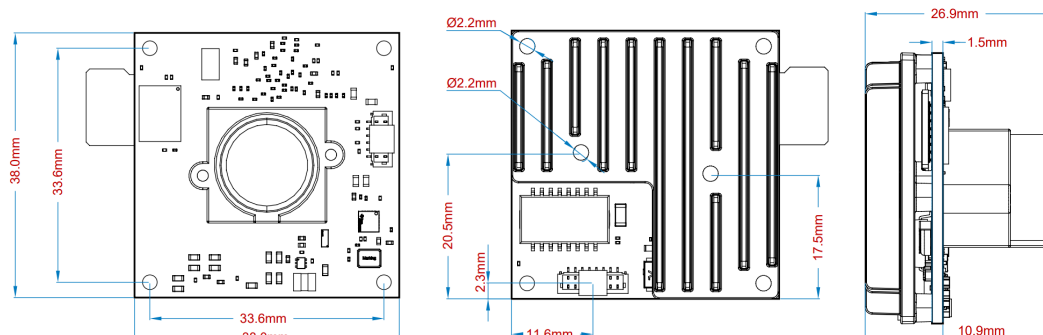


Figure 35 Camera Dimensions

*Variant shown is **201-IP-462-2HC1DC** – 2MP Camera, IP, Sony IMX462, M12 Lens Mount with Heatsink, Color, IR-Cut Filter, Direct Current

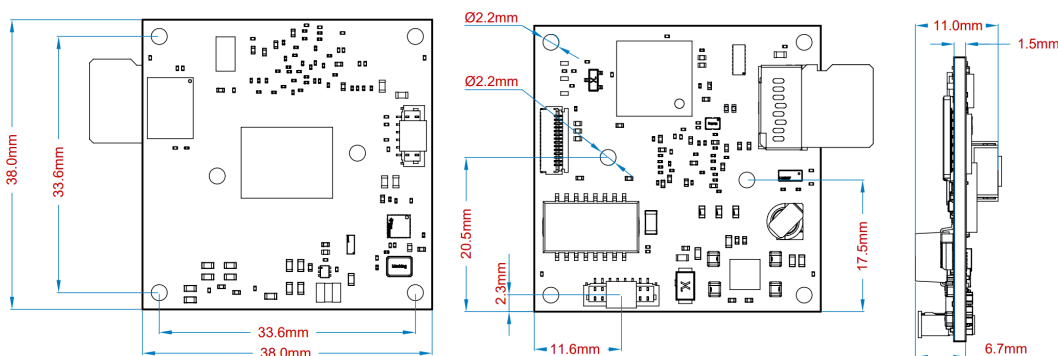


Figure 36 Camera Dimensions

*Variant shown is **201-IP-462-0C0DC** – 2MP Camera, IP, Sony IMX462, No M12 Lens Mount, Color, No IR-Cut Filter, Direct Current

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

11. List of configuration IDs

Values and parameters for HTTPS API commands to alter the imaging settings of the camera. This is explained in section 8.4.1.

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) 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. (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 (0: 1/30, 1: 1/60, 2: 1/120, 3: 1/250, 4: 1/500, 5: 1/1000, 6: 1/2000, 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 (0: 1/30, 1: 1/60, 2: 1/120, 3: 1/250, 4: 1/500, 5: 1/1000, 6: 1/2000, 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 (0: 1/30, 1: 1/60, 2: 1/120, 3: 1/250, 4: 1/500, 5: 1/1000, 6: 1/2000, 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: 1/30, 1: 1/60, 2: 1/120, 3: 1/250, 4: 1/500, 5: 1/1000, 6: 1/2000,	0 ~ 10

		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) INDOOR Full Shutter fixation to prevent indoor Flicker generation, AE control mode with IRIS. At this time, the Shutter is automatically changed to Full Shutter. OUTDOOR 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. DEBLUR 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) NORMAL IRIS is a mode that controls AE with a Full Open and a Shutter. DEBLUR 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). 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 11. Exposure Control

Example:

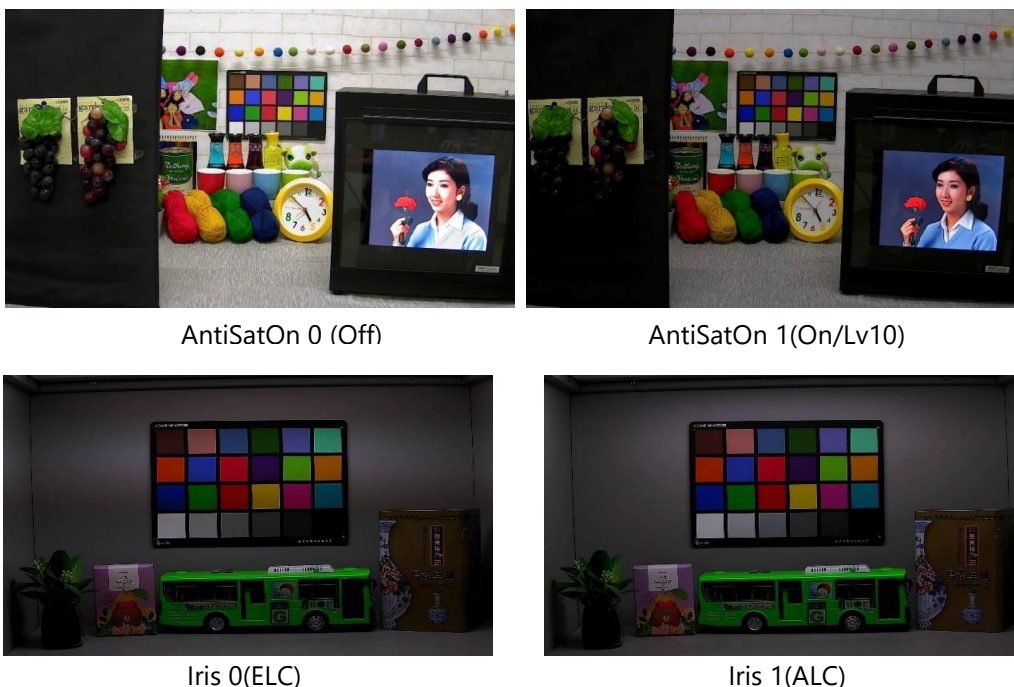


Figure 37 Exposure example

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. (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. (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. (0: 0.45, 1: 0.5, 2: 0.55, 3: 0.6, 4: 0.65, 5: 0.7, 6: 0.75)	0 ~ 6

Table 12. 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 38 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 (0: AUTO, 1: AUTOext, 2: PRESET, 3: MANUAL) AUTO White Balance is automatically performed through the default color temperature band. AUTOext Color temperature range extension mode compared to AUTO mode PRESET White Balance does not automatically renew. When using the PresetHold function, the color temperature at the time is maintained. MANUAL The White Balance is proceed based on the fixed color temperature (3000K, 5000K, 8000K). RGAIN and BGAIN can be established additionally.	0 ~ 3

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 13. Color Control



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



AWB off



AWB 0 (Auto)



AWB 1 (Autoext)

Figure 39 AWB example



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



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



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

Figure 40 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 41 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
HRYP	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 14. HUE & CHROMA Control



Figure 42 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 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 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) Function to suppress the occurrence of color noise when entering AGC	0 ~ 1

Table 15. Color suppression Control

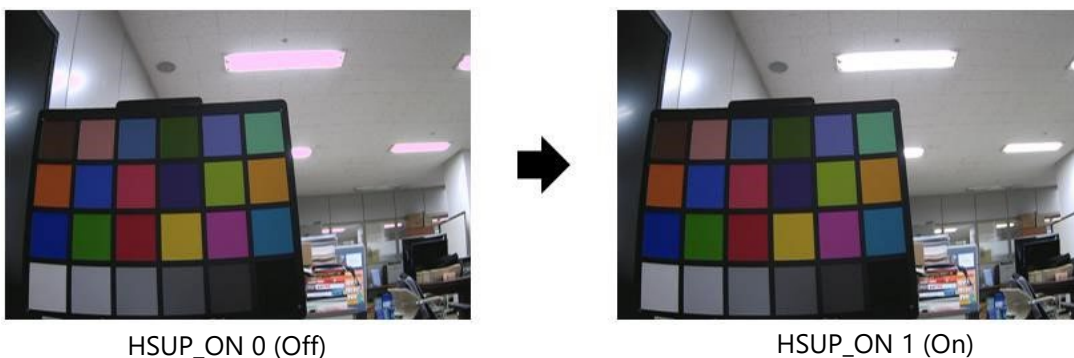


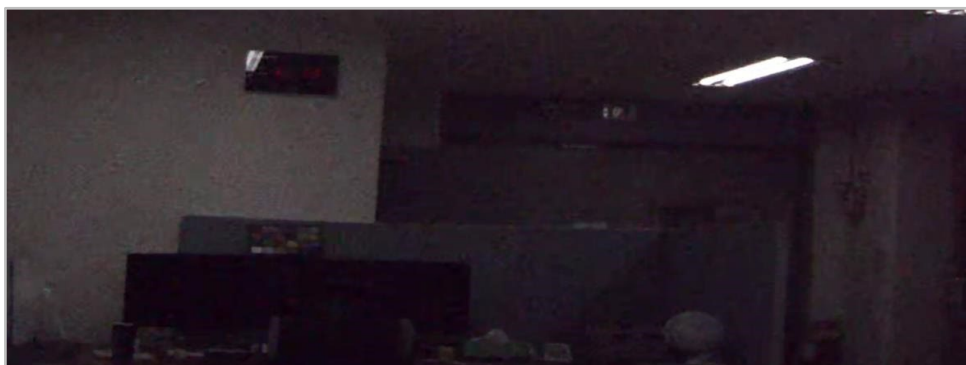
Figure 43 Color suppression example

11.6 DNR

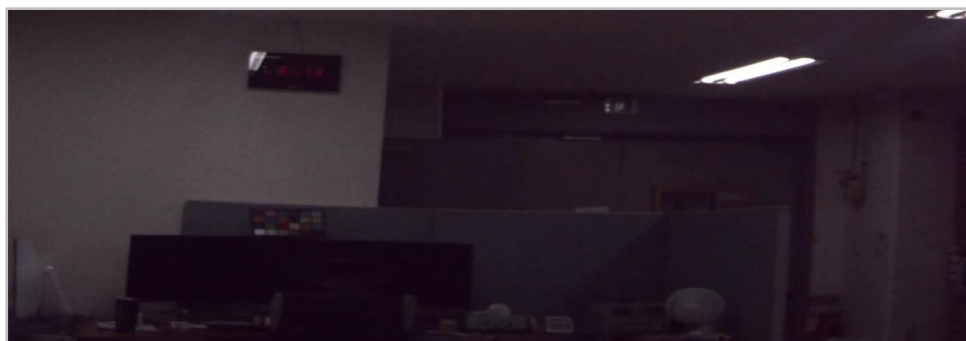
Settings related to noise reduction.

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

Table 16. DNR Control



Adnr3D 0 (Off)



Adnr3D 51 (On)

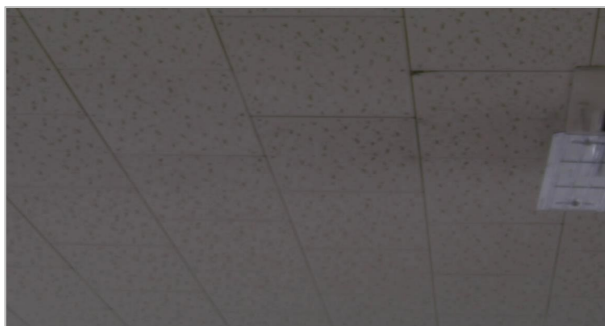
Figure 44 DNR example

11.7 Sharpness

Settings related to sharpness.

ID	Feature	Description	Range
SPLV	Sharpness	Setting the intensity of sharpness 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 17. Sharpness Control



Sharpness 0



Sharpness 128

Figure 45 Sharpness example

11.8 Gamma

Set the gamma parameter.

ID	Feature	Description	Range
GMML	Gamma	Gamma setting (0: 0.45, 1: 0.5, 2: 0.55, 3: 0.6, 4: 0.65, 5: 0.7, 6: 0.75, 7: Adaptive) 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 (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 (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 (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 18. 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. (0: MANUAL, 1: AUTO) MANUAL The intensity of the DEFOG mode is established as manual AUTO The intensity of the DEFOG mode is established automatically	0 ~ 1

Table 19. Contrast Control



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



Contrast 0



Contrast 1



Ace 0 (off)



Ace 3 (HIGH)

Figure 46 Contrast example

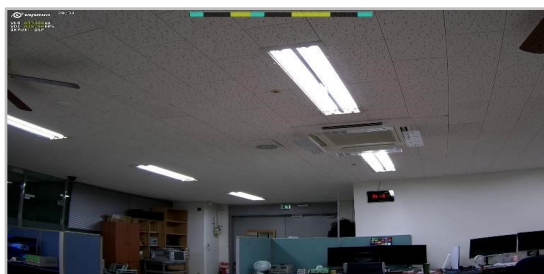
11.10 Mirror

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
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Table 20. Mirror Control



Mirror 1 (On)



Flip 1 (On)

Figure 47 Mirror example

11.11 DZOOM

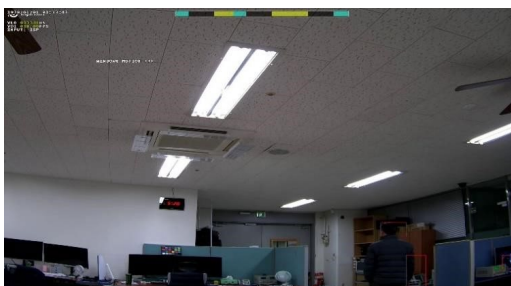
Set the digital zoom parameter.

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 21. 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 48 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 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 22. Motion Control



MotionOn 1 – Object

Figure 49 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. (0: OFF, 1: ON)	0 ~ 1
FTHS	FocusThrs	Edge level.	0 ~ 20
FACS	FocusAdjColorSel	Edge color. (0: WHT, 1: YEL, 2: CYN, 3: RED, 4: BLU, 5: BLK)	0 ~ 5

Table 23. Focus Assist Control

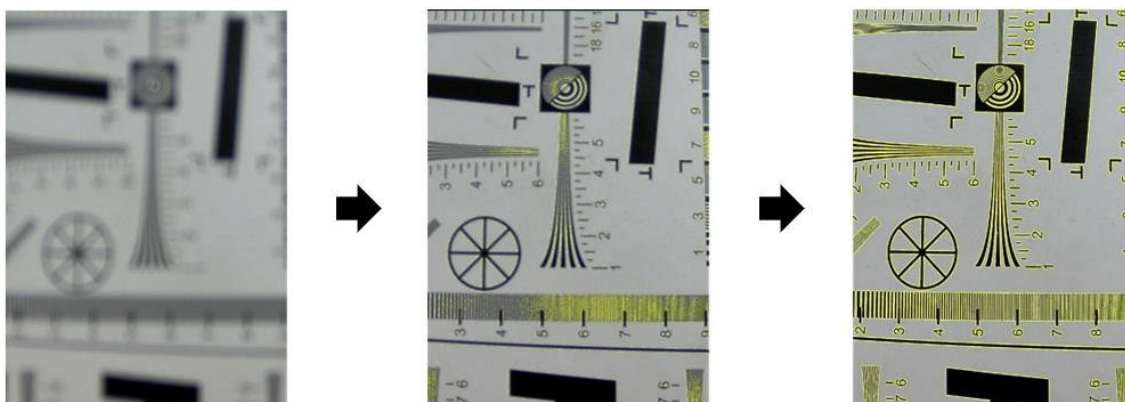


Figure 50 Focus assist example

11.14 Stat Config

Set the statistic function configuration.

ID	Feature	Description	Range
SWDS	StatWinDispSel	Display STAT window (0: OFF, 1: AE, 2: AF, 3: AWB)	0 ~ 3
EWDS	AeWinDispNumSel	Display STAT AE window 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 select (bit [0] AF window 1, [1] AF window 2)	0 ~ 3
WWDS	AwbWinDispOsdSel	Display STAT AWB white point (0: OFF, 1: ON)	0 ~ 1
MWDS	MotionWinDispNumSel	Display STAT MOTION window select (bit [0] Motion window 4, [1] Motion window 3, [2] Motion window 2, [3] Motion window 1)	0 ~ 15

Table 24. 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
EWX2	AeWinSizX2	AE window 2 X width size, (4095 = default window)	0 ~ 4095
EWY2	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
EWX3	AeWinSizX3	AE window 3 X width size, (4095 = default window)	0 ~ 4095
EWY3	AeWinSizY3	AE window 3 Y height size, (4095 = default window)	0 ~ 4095

Table 25. AE window Control

11.16 AE Config

Set the AE slice, clip parameter.

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

Table 26. 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 27. 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 (0~255: fix slice value, 4095: default value)	0 ~ 4095
WCC1	AwbConfClip	AWB window C Slice value (0~255: fix clip value, 4095: default value)	0 ~ 4095

Table 28. 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 (0: AUTO, 1: COLOR, 2: B&W, 3: EXTERN) AUTO The mode deciding the day/night based on the AGC level as the decision criteria. COLOR It is the mode fixed to the manual mode to the daytime. B&W It is the mode fixed to the manual mode to the night time. EXTERN The mode which decides the day/night by using the external device.	0 ~ 3

Table 29. 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 201-IP-462 product, please fill out the form here to contact our support department: <https://www.videologyinc.com/contact-videology-service>

12.3 Videology RMA Policy

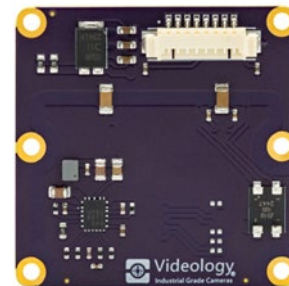
To learn more about our Return Material Authorization (RMA) policy, please visit the RMA Policy page on our website: <https://www.videologyinc.com/return-authorization>

12.4 Videology Terms and Conditions of Sale

Our global sales terms and conditions can be found on [this link](#).

13. Appendix A, PoE Board

The Videology PoE board is designed to work with the 200 series IP camera boards to provide PoE power delivery and data transmission. There are two available integration options, one with the typical RJ45 connector and the other with a smaller PicoBlade connector.



Technical Specifications

Electrical

Supply Voltage	37 ~ 57 V
Maximum Current In	0.2A
Output Voltage	12V $\pm$ 0.5V
Maximum current Out	0.5A
Power	3.5W (typical) / 6.5W (maximum)
Power output	2.8W (typical) / 6W (maximum)

Environmental

Operating Temp.	-40°C ~ 85°C (-40°F ~ 185°F)
Storage Temp.	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	30% ~ 90% RH
Storage Humidity	<85% RH

Mechanical

Dimensions (mm)	38 x 38 x 18.4	38 x 38 x 15.1
Weight (g)	13.5	9.5
Connectors	PicoBlade 6p, RJ45	Picoblade 6p & 8p

RJ45 10/100Mb/s Ethernet Connector

1	Tx+	Positive transmit signal
2	Tx-	Negative transmit signal
3	Rx+	Positive receive signal
4	n.c.	No connection
5	n.c.	No connection
6	Rx-	Negative receive signal
7	n.c.	No connection
8	n.c.	No connection
	Shield	Shield

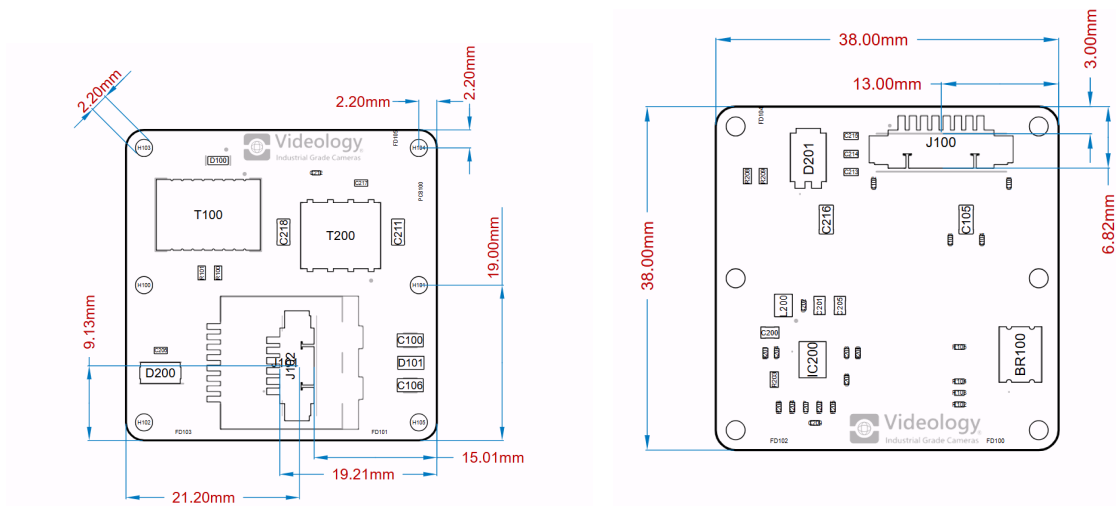
Molex PicoBlade Connector 1.25mm Pitch Connection to camera

1	GND	Ground
2	Vout (12V)	Power
3	GND	Ground
4	TD+	Positive transmit signal
5	TD-	Negative transmit signal
6	RD+	Positive receive signal
7	RD-	Negative receive signal
8	GND	Ground

Molex PicoBlade Connector 1.25mm pitch Connection to network

1	Shield	Shield
2	Tx+	Positive transmit signal
3	Tx-	Negative transmit signal
4	Rx+	Positive receive signal
5	Rx-	Negative receive signal
6	Shield	Shield

Dimensions



Part Numbering

POE100-RJ	PoE board with RJ45 connector
POE100-PB	PoE board with PicoBlade connector

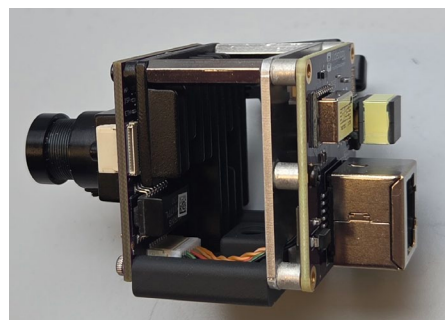
Related Components

(Not included unless otherwise noted)

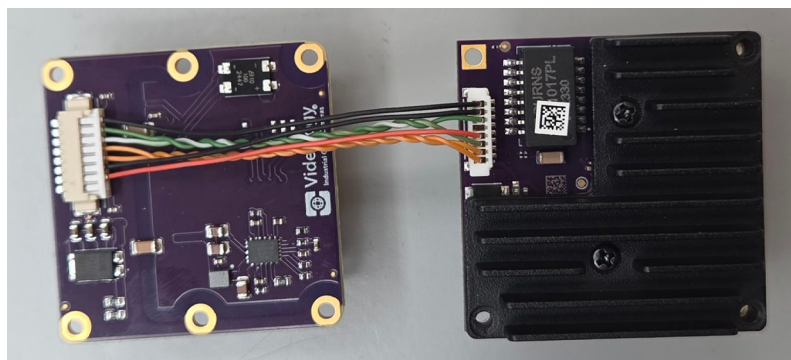
60C5035	Cable for use with 201-IP-462
70V5043	Heatsink for use with 201-IP-462
AK200-001	Adapter hardware for 201-IP-462

PoE Board to Camera Board Connection

Connect the 200 series IP camera to the PoE board using cable 60C5035. To attach the PoE board to the camera board use the AK200-001 adapter hardware kit.



PoE board shown mounted to the 201-IP-462 with adapter hardware kit AK200-001.





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