



Simply Better Connections

**UC3310**

CAMLIVE MX UVC Camera  
Seamless Matrix  
User Manual

## Compliance Statements

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### FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

The device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### Warning

Operation of this equipment in a residential environment could cause radio interference.

### Achtung

Der Gebrauch dieses Geräts in Wohnumgebung kann Funkstörungen verursachen.



### KCC Statement

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이 기기는 업무용 (A 급) 전자파적합기기로서 판매자 또는 사용자는 이  
점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로  
합니다.

### **Industry Canada Statement**

This Class A digital apparatus complies with Canadian ICES-003.

## **CAN ICES-003 (A) / NMB-003 (A)**

### **HDMI Trademark Statement**

The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.



### **RoHS**

This product is RoHS compliant.

## User Information

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### Online Registration

Be sure to register your product at our online support center:

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International	<a href="http://eservice.aten.com">http://eservice.aten.com</a>
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### Telephone Support

For telephone support, call this number:

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International	886-2-8692-6959
China	86-400-810-0-810
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988 1-949-428-1111

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### User Notice

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed *as is*. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.

## Product Information

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For information about all ATEN products and how they can help you connect without limits, visit ATEN on the Web or contact an ATEN Authorized Reseller. Visit ATEN on the Web for a list of locations and telephone numbers:

International	<a href="http://www.aten.com">http://www.aten.com</a>
North America	<a href="http://www.aten-usa.com">http://www.aten-usa.com</a>

## **Package Contents**

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Check to make sure that all the components are in working order. If you encounter any problem, please contact your dealer.

1 UC3310 CAMLIVE MX UVC Camera Seamless Matrix

1 USB Type-A to USB Type-B cable

1 power adapter and power cord

1 user instructions

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## About this Manual

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This user manual is provided to help you get the most out of your CAMLIVE MX UVC Camera Seamless Matrix unit. It covers all aspects of the device, including installation, configuration, and operation.

The model covered in this manual is:

Model	Product Name
UC3310	CAMLIVE MX UVC Camera Seamless Matrix

An overview of the information found in the manual is provided below.

**Chapter 1, Introduction**, introduces you to the CAMLIVE MX UVC Camera Seamless Matrix, its purpose, features, installation considerations, with its panel components described.

**Chapter 2, Hardware Setup**, describes the steps that are necessary to quickly and safely set up your CAMLIVE MX UVC Camera Seamless Matrix.

**Chapter 3, Livestream / Record Setup**, explains how to find CAMLIVE MX UVC Camera Seamless Matrix on your system and guides you to set up video and audio sources using an example (live-stream / record software / platform), and RS-232 command operation.

**Chapter 4, Firmware Upgrade**, describes the firmware upgrade procedures and how the power LED behaves during the firmware upgrade.

**Appendix**, provides a list of safety instructions and precautions, and other product specifications and technical information of the product.


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### Note:

- ◆ Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit or any connected devices.
  - ◆ The product may be updated, with features and functions added, improved or removed since the release of this manual. For an up-to-date user manual, visit <http://www.aten.com/global/en/>
-

## **Conventions**

This manual uses the following conventions:

- |   |  |
|---|--|
| Monospaced  | Indicates text that you should key in.   |
| [ ]   | Indicates keys you should press. For example, [Enter] means to press the <b>Enter</b> key. If keys need to be chorded, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt]. |
| 1.  | Numbered lists represent procedures with sequential steps.   |
| ◆   | Bullet lists provide information, but do not involve sequential steps.   |
| >   | Indicates selecting consecutive options (such as on a menu or dialog box). For example, Start > Run means to open the <i>Start</i> menu, and then select <i>Run</i> .                                      |
|  | Indicates critical information.  |

# Chapter 1

## Introduction

### Overview

---

The CAMLIVE MX (UC3310) UVC Camera Seamless Matrix enables the conversion of up to two 4K @ 30 USB camera sources into one HDMI, allowing seamless switch among the sources. Besides, it features the encoding solution supporting 1080p@30 UVC output simultaneously for live broadcasting on popular streaming software such as Microsoft Teams, Zooms, OBS, XSplit, YouTube, Facebook, GoToWebinar, and Twitch, guaranteeing an engaging video conferencing experience with high quality images and sound.

Pushbuttons are built on the front panel for quick and intuitive signal selection. The RS-232 connection enables integration with ATEN VK series and other third-party control systems. The CAMLIVE MX also comes with RS-485 interface to support VISCA protocol for PTZ camera controller connection. An optional rack mount kit is available to give installation flexibility in media cabinets or DIT stations. The CAMLIVE MX delivers plug-and-play convenience with no software drivers needed. In addition, it runs on all major operating systems including windows 10 and macOS 12 for all users to customize video streams for various online meeting applications.

## Features

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- ◆ Converts up to two 4K@30 USB camera inputs to into one HDMI
- ◆ Supports USB audio in / out for matrix switching
- ◆ Support 1080p @ 30 UVC output simultaneously for live broadcasting on popular streaming software (Microsoft Teams, Zooms, OBS, XSplit, YouTube, Facebook, GoToWebinar, and Twitch)
- ◆ Pushbuttons on the front panel allow quick and intuitive signal selection and assignment
- ◆ RS-232 connection enables integration with ATEN VK Control System
- ◆ Built-in RS-485 interface to support VISCA protocol for PTZ camera controller connection
- ◆ Optional rack mount kit gives installation flexibility in media cabinets or DIT stations
- ◆ Plug-and-play convenience with no software drivers needed
- ◆ Supports all major operating systems including windows 10 and macOS 12

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## Planning the Installation

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### Requirements

Prepare the following before installing the CAMLIVE MX UVC Camera Seamless Matrix unit:

- ◆ 1 USB Type-A camera source device
- ◆ 1 USB-C camera source device
- ◆ 1 HDMI display
- ◆ 1 USB Type-A audio source device
- ◆ 1 hardware / software controller (optional)
- ◆ 1 PC
- ◆ 1 PTZ Controller (optional)

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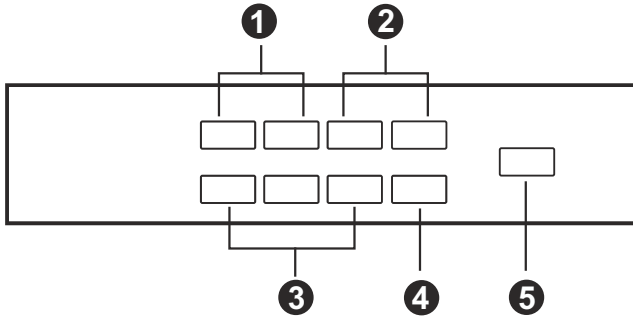
## Supported Operating System and Requirements

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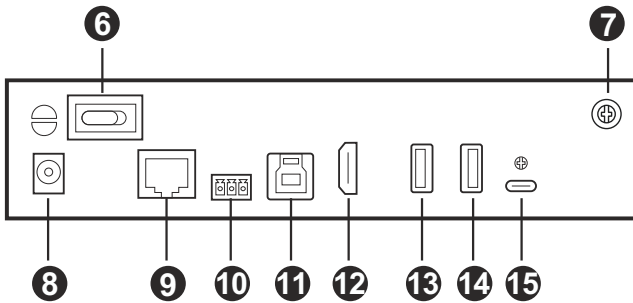
Operating System	Minimum Hardware Requirement
Windows 10 or above macOS 12 or later	CPU: Intel® i3 Dual Core 2.8Ghz or higher RAM: 4GB or more 1 x USB Type-A interface

# Components

## Front View



## Rear View



No.	Component	Description
1	PGM video output selection pushbuttons (HDMI / USB)	◆ Selects a video output between HDMI and USB outputs for Cam 1 and Cam 2. When the HDMI output is selected, only the video is displayed on the HDMI monitor and there will be no audio output. For more information, see <i>Front Panel Operations &amp; LEDs Behavior</i> , page 19.
2	USB audio output selection pushbuttons (mic / speakerphone)	Selects an audio output between mic and speakerphone for Cam 1, Cam 2, and Audio. For more information, see <i>Front Panel Operations &amp; LEDs Behavior</i> , page 19.
3	input selection pushbuttons	Selects a USB source between Cam 1, Cam 2, and Audio. For more information, see <i>Front Panel Operations &amp; LEDs Behavior</i> , page 19.

No.	Component	Description
4	video clone pushbutton	Press to mirror and show the identical USB output source to the HDMI output display. For more information, see <i>Front Panel Operations &amp; LEDs Behavior</i> , page 19.
5	power pushbutton	Press to switch between standby mode and operating mode for the CAMLIVE MX UVC Camera Seamless Matrix. For more information, see <i>Front Panel Operations &amp; LEDs Behavior</i> , page 19.  <b>Note:</b> Make sure to first switch the main power switch to on before pressing this power pushbutton.
6	main power switch	Switches go give power to the CAMLIVE MX UVC Camera Seamless Matrix. All the LEDs flash when powering the CAMLIVE MX UVC Camera Seamless Matrix, once the CAMLIVE MX UVC Camera Seamless Matrix is powered up, it goes into standby mode. In standby mode, the power LED lights red.  <b>Note:</b> By switching this main power switch only gives power to the CAMLIVE MX UVC Camera Seamless Matrix, you need to press the power pushbutton to switch between standby mode and operating mode for the unit.
7	grounding terminal	The grounding wire used to ground the switch attaches here.
8	power jack	The power adapter plugs here.
9	RJ-45 port (RS-232 control)	Connects to a control system (e.g., ATEN Controller) via Cat 5 cable for control purposes. For more information, please see ATEN Controller's user manual.
10	terminal ports (RS-485 PTZ control)	Connects to a PTZ control panel to control the camera connected to the CAMLIVE MX UVC Camera Seamless Matrix.
11	USB Type-B port	Connects to a PC.
12	HDMI output port	Connects an HDMI-enabled display for video output.
13	USB Type-A audio	Connects to an audio source.
14	USB Type-A camera input port	Connects to a USB Type-A camera source. For a supported USB camera list, see <i>Supported USB Camera List</i> , page 34.
15	USB-C camera input port	Connects to a USB-C camera source. For a supported USB camera list, see <i>Supported USB Camera List</i> , page 34.

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# Chapter 2

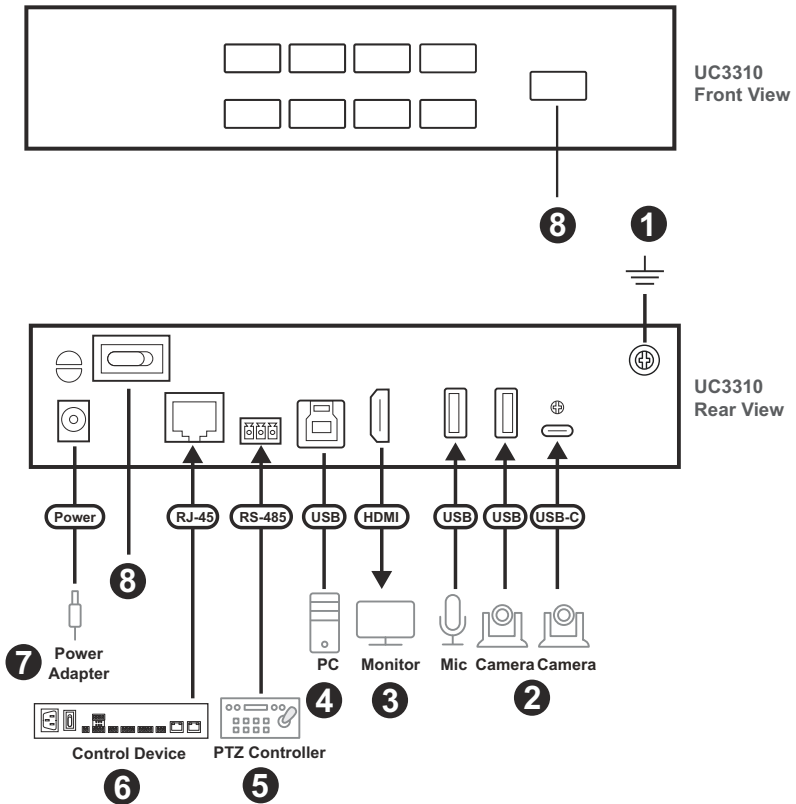
## Hardware Setup



Please review the safety information regarding the placement of this device in *Safety Instructions*, page 31.

### Connecting the Unit

Follow the steps below to connect the CAMLIVE MX UVC Camera Seamless Matrix.



1. Ground the unit by connecting one end of a grounding wire to the grounding terminal and the other end to a suitable grounded object.

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**Note:** Do not omit this step. Proper grounding helps prevent damage to the unit from power surges or static electricity.

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2. Connect up to 3 USB sources (1 x audio and 2 x videos) to the unit's USB Type-A and USB-C input ports.

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**Note:** For a supported USB camera list, see *Supported USB Camera List*, page 34.

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3. Connect an HDMI-enabled display to the unit's HDMI output port.
4. Connect a PC to the unit's USB Type-B port.
5. (Optional) Connect a PTZ control panel to the unit's terminal ports via terminal block to control the camera connected to the UC3310.
6. (Optional) Connect a controller (e.g., ATEN Controller) to the unit's RJ-45 port via Ethernet cable for control purposes.
7. Connect the power adapter to the unit's power jack.
8. Switch the main power switch (rear panel) on and then press the power pushbutton (front) to power on the unit.

## Selecting Video / Audio / USB Source

Please follow the steps below to select a desire output option for your USB source. Remember to first select a video output or an audio output, and then select a USB source.

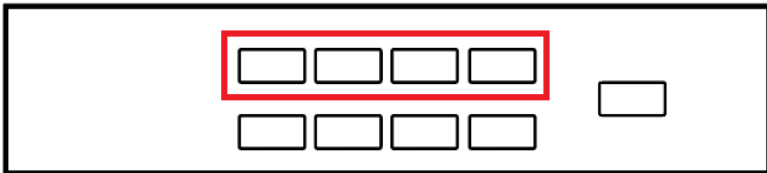
1. Select a video output from the PGM video output selection pushbuttons (HDMI / USB) or an audio output from the USB audio output selection pushbuttons (mic / speakerphone).

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### Note:

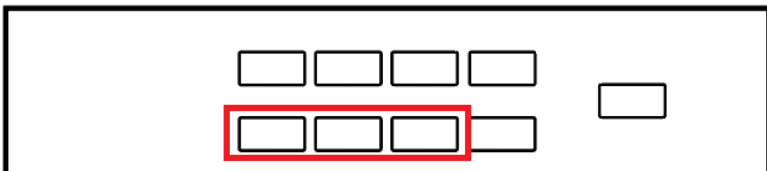
- ◆ When HDMI or USB video output is selected, you can select a USB source between Cam 1 and Cam 2. When HDMI output is selected, only the video is displayed on the HDMI monitor and there will be no audio output.
  - ◆ When mic or speaker audio output is selected, you can select a USB source between Cam 1, Cam 2, and Audio. The audio source is output to the PC host device connected to the USB Type-B port on the UC3310.
- 

### Front View



2. Select a USB source from input selection pushbuttons.

### Front View



## Software

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To enable CAMLIVE MX UVC Camera Seamless Matrix, please download and install a suitable video recording or live streaming software for your requirement.

### **PC**

Below lists some examples of supported video recording / live streaming software for PC.

All trademarks are property of their respective owners.

[OBS: https://obsproject.com](https://obsproject.com)

[Xsplit: https://www.xsplit.com](https://www.xsplit.com)

<https://www.youtube.com>

<https://www.facebook.com>

<https://www.zoom.com>

<https://www.skype.com>

<https://www.microsoft.com/en-us/microsoft-365>

<https://www.microsoft.com/en-us/microsoft-teams/online-meetings>

## Chapter 3

# Livestream / Record Setup

### **Livestream / Record Platform**

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Below lists a few of the available live-streaming or recording software/platforms:

OBS: <https://obsproject.com>

Xsplit: <https://www.xsplit.com>

<https://www.youtube.com>

<https://www.facebook.com>

<https://www.zoom.com>

<https://www.skype.com>

<https://www.microsoft.com/en-us/microsoft-365>

<https://www.microsoft.com/en-us/microsoft-teams/online-meetings>

All trademarks are property of their respective owners.

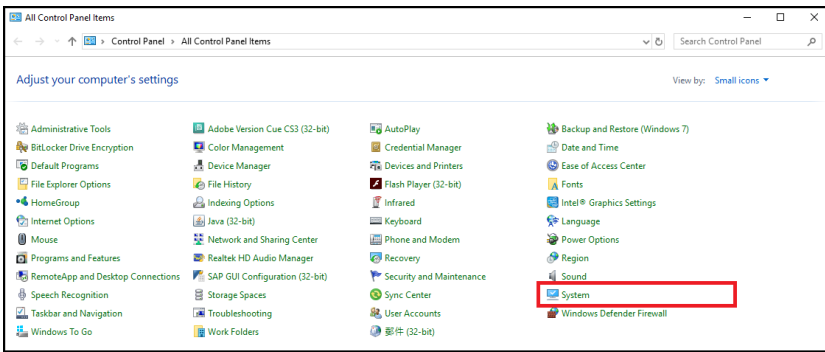
## Discovering CAMLIVE on your System

CAMLIVE MX UVC Camera Seamless Matrix is a plug-and-play device, please make sure your system is able to discover it. After connecting CAMLIVE MX UVC Camera Seamless Matrix as shown in *Connecting the Unit* on page 7, refer to the examples below on how your system may discover CAMLIVE MX UVC Camera Seamless Matrix.

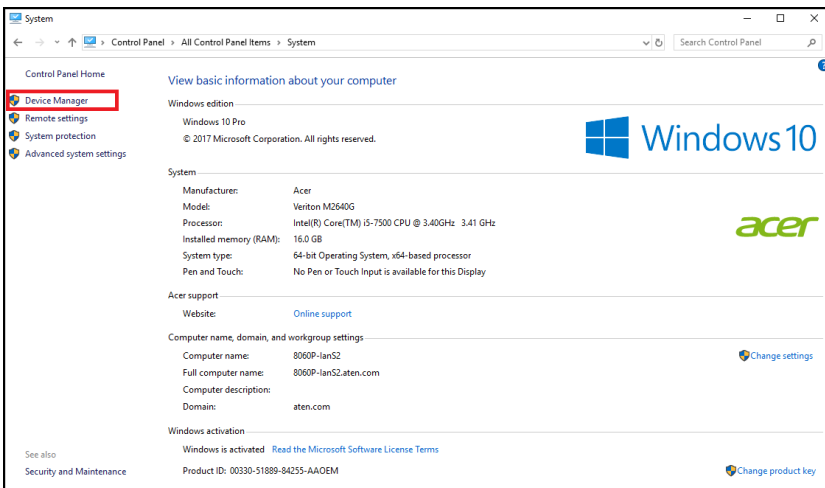
### Windows Operating System

This is an example used in a Windows 10 Operating System.

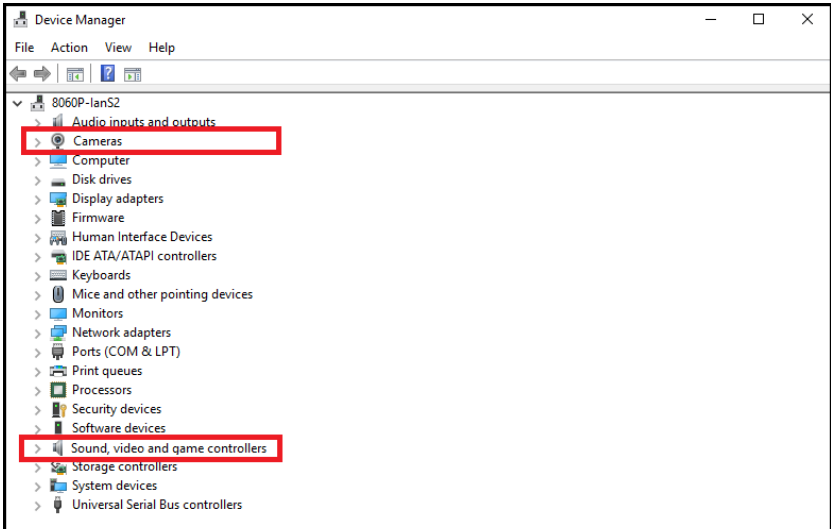
1. On a Windows 10 desktop, go to **Control Panel** and select **System**.



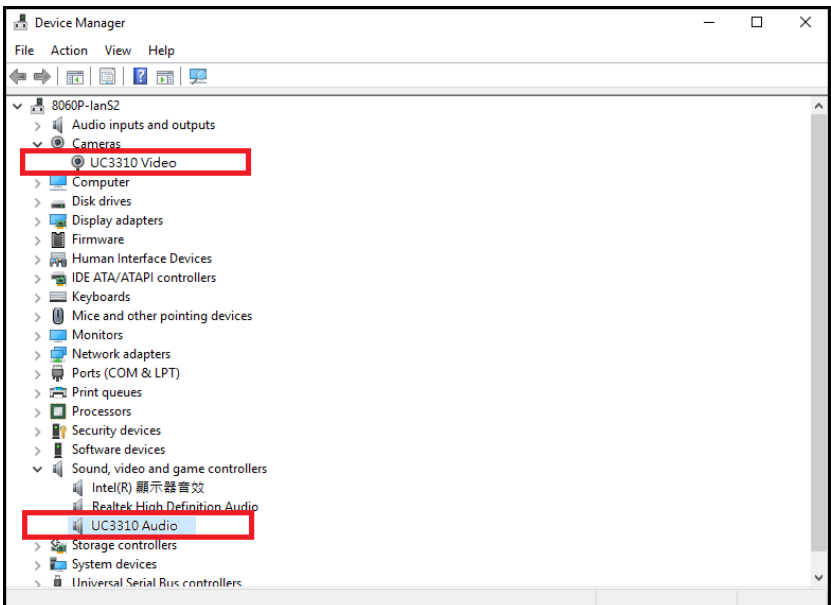
2. The System window appears, select **Device Manager**.



3. The Device Manager window appears. Click on **Cameras and Sound**, **video and game controllers**.



4. You should see an “USB Video Device” in the *Camera list*, and an “USB Audio Device” in the *Sound, video and game controllers list*. This indicates that your system has successfully discovered CAMLIVE MX UVC Camera Seamless Matrix.

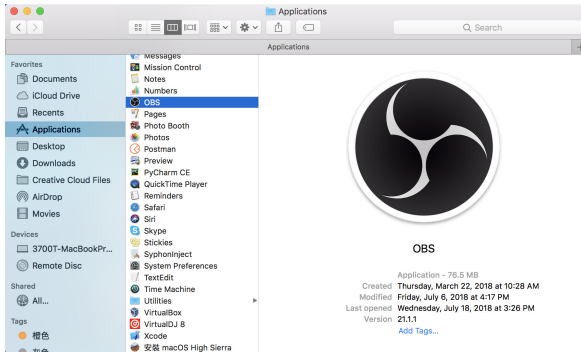


## Video and Audio Setup

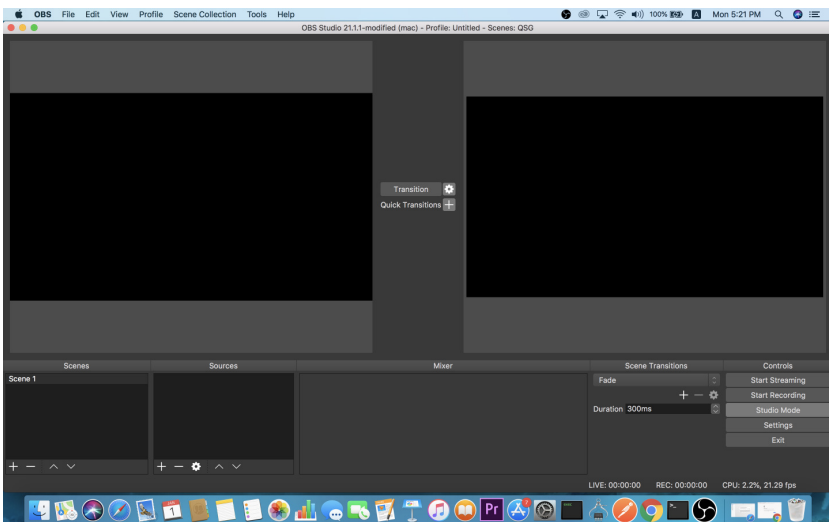
After your system discovers CAMLIVE MX UVC Camera Seamless Matrix, choose your livestream/record platform. You will need to setup the video and audio source coming from CAMLIVE MX UVC Camera Seamless Matrix.

Follow the steps below to setup your video and audio sources (separately).

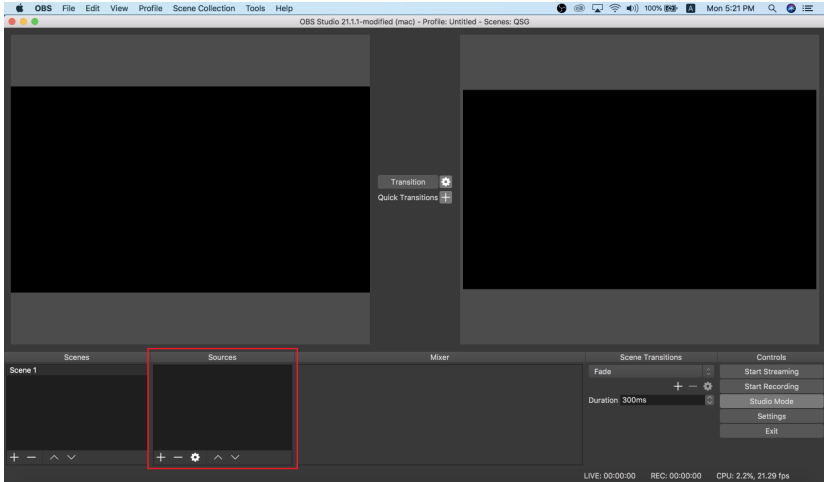
**Note:** OBS software is the example used in the setup steps below.



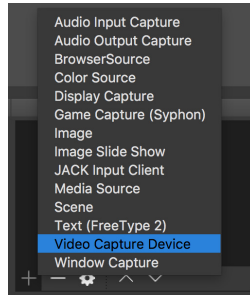
1. On your system, open the OBS software.



2. Locate and click the “+” button on the bottom of the “Sources” pane (outlined in red in the picture below) to open the add source menu:

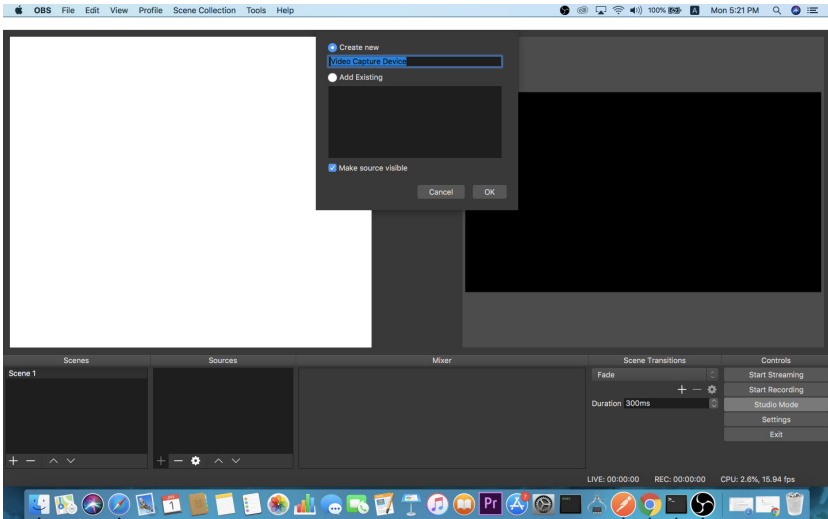


3. Select “Video Capture Device” or “Audio Capture Device.”

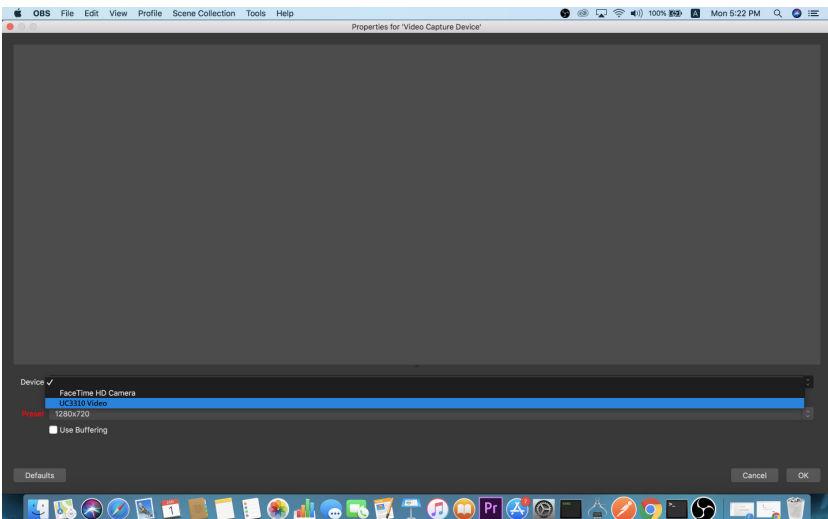


- A pop-up window will be shown for you to name the video/audio source. Click the “OK” button to continue.

It is recommended that “Make source visible” is checked.



- On the properties page, click the drop-down menu named “Device” to select CAMLIVE MX UVC Camera Seamless Matrix’s video/audio source. Both the video and audio sources of CAMLIVE MX UVC Camera Seamless Matrix have the name “UC3310 Video”.

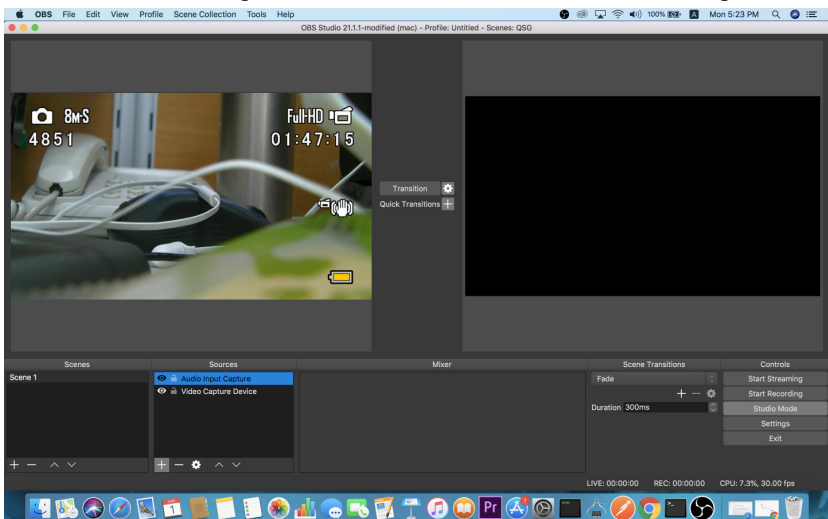


After selecting the video source, the image from CAMLIVE MX UVC Camera Seamless Matrix should be displayed as shown below.

Click the “OK” button to continue.



6. For successful setup, the sources will be shown in the “Source” panel.



Setup of video and audio sources are complete, you can now start live-streaming/video recording.

Detailed configuration of your live-streaming/video recording software/platform is not within the scope of this user manual, please refer to the software/platform’s instruction guides/manual.

## Using the USB Cables

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When connecting CAMLIVE MX UVC Camera Seamless Matrix on a PC, it will automatically provide a list of suitable resolutions for you to select. For better video quality, we strongly recommend to connect CAMLIVE MX UVC Camera Seamless Matrix to a USB 3.1 Gen1 interface.

To make sure the result match your media output you wish to capture, please check the detected video format from your capture software first.

Capture device custom setting page examples displaying USB 3.1 NV12 and USB 2.0-MJPEG.

- ◆ USB 2.0 mode with MJPEG video format only
- ◆ USB 3.1 mode with NV12 and MJPEG video formats

## Front Panel Operations & LEDs Behavior

Button	Description
power	Press to switch between standby mode and operating mode. In standby mode, the power LED lights red. In operating mode, the power LED lights green and the HDMI LED lights red.
	Press for 3 seconds to power off the UC3310.
	Press for 6 seconds to force a power cut.
PGM video output selection pushbuttons (HDMI / USB)	Press to select a video output between HDMI and USB outputs (the selected LED lights red) for the USB source (Cam 1 and Cam 2). The default USB input selection is Cam 1 for both the HDMI and USB. Only the video is displayed on the HDMI monitor and there will be no audio output.
USB audio output selection pushbuttons (mic / speakerphone)	Press to select an audio output between mic and speakerphone (the selected LED lights red) for the USB source (Cam 1, Cam 2, and Audio). Press the selected audio output (LED lights red) to mute the audio output. The default USB input selection is Audio for both the mic and speakerphone.
	When the UC3310 is powered on, insert a USB storage device that contains the firmware upgrade package to any USB Type-A port that is available, and then press the USB audio output selection pushbuttons together to enter the firmware upgrade mode. The power LED flashes in green.
input selection pushbuttons	Press to select a USB source between Cam 1, Cam 2, and audio. the LEDs light green.
video clone pushbutton	Press to mirror and show the identical USB output source to the HDMI output display. Both the HDMI and USB LEDs lights red.
	In mirror mode, you can select a desired USB input source (Cam 1 or Cam 2) for the video display output.

## Serial Adapter Pin Assignments

To connect the CAMLIVE MX UVC Camera Seamless Matrix to a control system, we recommend to use UC232A / UC232A1 USB to RS-232 Adapter, UC232B USB to RJ-45 (RS-232) Console Adapter, or a third party RS232 adapter. Please see below for the serial adapter pin assignments.

**Note:** To purchase an UC232A / UC232A1 USB to RS-232 Adapter or UC232B USB to RJ-45 (RS-232) Console Adapter, contact your ATEN dealer for more information.

UC3310		UC232B RJ-45 Port		UC232A DB-9 Port		3-Pin Terminal
Signal	RJ-45 Pin	Straight-Cable	Signal	Signal	DB-9 Out	Pin Out
	1	1	CTS	CTS	8	
	2	2	DSR	DSR	6	
TxD	3	3	RxD	RxD	2	RxD
GND	4	4	GND	GND	5	GND
GND	5	5	GND	GND	5	
RxD	6	6	TxD	TxD	3	TxD
	7	7	DTR	DTR	4	
	8	8	RTS	RTS	7	

## RS-232 Operation

Once the UC3310 is connected to a control system, it can be managed by the control system via RS-232 serial operations. Please see below for baud rate settings and the supported RS-232 commands.

### RS-232 Baud Rate

The default settings is shown below:

- ◆ Baud Rate: 9600
- ◆ Data Bit: 8 bit
- ◆ Parity: None
- ◆ Stop Bit: 1 bit
- ◆ Flow Control: None

### RS-232 Commands

Command	Variable	Action
sw	Video Output: o01: HDMI o02: USB o*: all video outputs Source Input: i01: Cam 1 i02: Cam2	Switches a desired input to a desired output. Example: sw o01 i02, switches Cam 2 input to HDMI output display.
	Picture in Picture: pip	Switches a desired output into pip mode. Example: sw o01 pip, switches HDMI output display into pip mode.
read		Gets the current device information.
displaymode	matrix / mirror	<ul style="list-style-type: none"> <li>◆ Sets to enable / disable the mirror mode. Matrix: disables mirror mode. Mirror: enables mirror mode.</li> <li>◆ Shows the current display mode information when the variable is empty.</li> </ul>
standby	on / off	Sets the standby mode on or off.
reboot		Reboots the UC3310.
selfdiagnostic		Performs a self diagnostic.

Command	Variable	Action
audiomap	Audio Output: o01: audio output o*: all audio outputs Audio Input: i01: audio input i*: all audio inputs USB Source: none: mute src01: Cam 1 src02: Cam 2 src03: Audio	<ul style="list-style-type: none"> <li>◆ Sets the audio input and output mapping for the USB source. Example: audiomap i01 src01, sets the audio input from Cam 1.</li> <li>◆ Shows the current audio mapping information when the variable is empty.</li> </ul>
serial	Serial Port: p01: RJ-45 port (RS-232 control) p02: terminal ports (RS-485 PTZ control) Baud Rate: 300 / 600 / 1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 / 921600 (CLI port only)	<ul style="list-style-type: none"> <li>◆ Sets the baud rate for the serial ports on the UC3310. Example: serial p01 baud 19200, sets the RJ-45 port (RS-232 control) to baud rate 19200.</li> <li>◆ Shows the current baud rate information for each serial port when the variable is empty.</li> </ul>
reset		Resets the UC3310 to its default configuration.
cam	Cam Port: p1: cam 1 p2: cam 2 ID: id 1 ~ id 7	Sets a desired cam port to ID 1 ~ ID 7. Example: cam p1 id 3, sets1 Cam 1to ID 3.

Command	Variable	Action
setpip	PiP Size: 10 ~ 100 (integer, %, default is 25) PiP Position: pos 1: top left corner pos 2: top right corner pos 3: bottom left corner pos 4: bottom right corner. this is the default position Swap Video Source: swap: swaps the PiP video source, the default is cam 1 back and cam 2 front PiP On / Off: on: sets the PiP on off: sets the PiP off, this is the default setting	Sets the PiP on or off, and adjusts its size and position. Example: setpip on size 50 pos 1, sets the PiP on with size 50% and top left corner position.

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# Chapter 4

## Firmware Upgrade

### Download Requirements

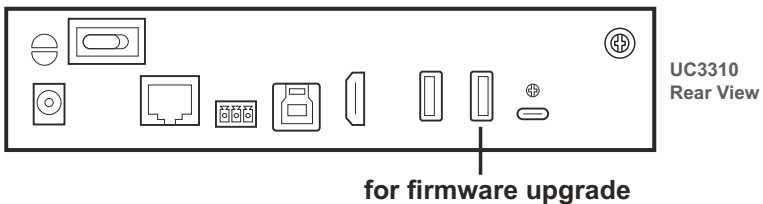
---

- ◆ A computer connected to the Internet.
- ◆ An empty external storage device or a USB flash drive with at least 1.1GB of free space.

### Preparing the Firmware

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1. On the external storage device, create a folder named “uc3310\_img”.
2. Download the complete software and unzip it.
3. Save your file (in the format “uc3310\_Vx.x.xxx.bin”) to the “uc3310\_img” folder.
4. Plug the external storage device to the rear USB Type-A camera input port of the CAMLIVE MX UVC Camera Seamless Matrix. See *USB Type-A camera input port*, page 5.



5. Refer to *Upgrading the Unit* on page 27 to start firmware upgrade.

- Note:**
- ◆ A folder named “uc3310\_img” must be created in the root menu of the USB storage device.
  - ◆ The firmware upgrade file (\*.bin) must be placed in the “uc3310\_img” folder.
  - ◆ The firmware upgrade file should look like the following:

uc3310\_Vx.y.yyy

where x and y combine to indicate its version and

**x = 1-9**

**y = 0-9**

- ◆ The CAMLIVE MX UVC Camera Seamless Matrix will upgrade using the newest firmware. For example, if the folder has a “uc3310\_V1.0.071” file and a “uc3310\_V1.0.072” file, the CAMLIVE MX UVC Camera Seamless Matrix will upgrade using the “uc3310\_V1.0.072” file.
-



## **Upgrade Assessment Fail**

When the upgrade assessments fail (e.g. when no USB storage device is connected or USB drive does not have a firmware upgrade file, etc.), the CAMLIVE MX UVC Camera Seamless Matrix will ignore the upgrade process and return to its previous system state.

## **Upgrade Fail**

If firmware upgrade fails during the firmware upgrade (e.g. disconnected USB storage device or power, etc.), the power LED will blink orange every 0.5 seconds and the unit will reboot after some time.

When this happens, it is likely that the upgrade file is corrupted. We recommend:

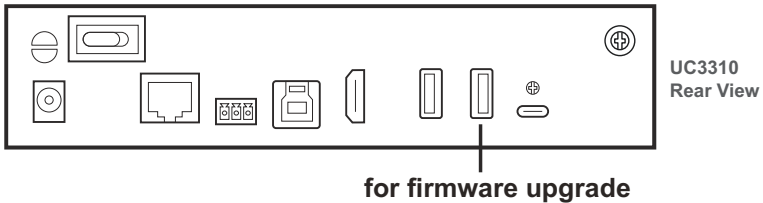
1. Unplug the power and the USB storage device from your CAMLIVE MX UVC Camera Seamless Matrix.
2. Retrieve the firmware file again and recheck the USB preparation process (*Download Requirements*).
3. Go to Firmware Recovery Mode, see *Firmware Recovery Mode*, page 29.

## Firmware Recovery Mode

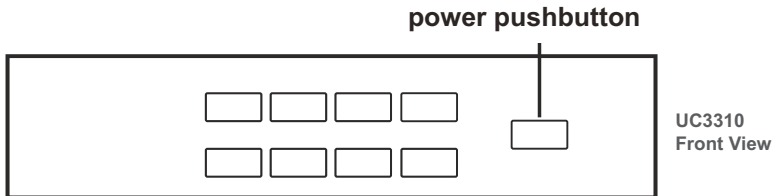
Follow the steps below to enter the firmware recovery mode.

**Note:** If the firmware recovery mode upgrade is successful, the CAMLIVE MX UVC Camera Seamless Matrix will also reset all the settings to its default setting.

1. On the external storage device, create a folder named “uc3310\_img”.
2. Download the complete software and unzip it.
3. Save your file (in the format “uc3310\_Vx.x.xxx.bin”) to the “uc3310\_img” folder.
4. Plug the external storage device to the rear USB Type-A camera input port of the unit. See *USB Type-A camera input port*, page 5.



5. Unplug the power adapter from the CAMLIVE MX UVC Camera Seamless Matrix.
6. Press and hold the power pushbutton, replug the power adapter to the CAMLIVE MX UVC Camera Seamless Matrix, and then turn on the main power switch.



7. Wait till the power LED blinks green every 0.5 seconds and then release the power pushbutton.
8. If the assessment succeeds, the CAMLIVE MX UVC Camera Seamless Matrix will start upgrading.

If you are still unable to upgrade the CAMLIVE MX UVC Camera Seamless Matrix’s firmware, please contact your dealer.

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## Safety Instructions

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### General

- ◆ This product is for indoor use only.
- ◆ Read all of these instructions. Save them for future reference.
- ◆ Follow all warnings and instructions marked on the device.
- ◆ Do not place the device on any unstable surface (cart, stand, table, etc.). If the device falls, serious damage will result.
- ◆ Do not use the device near water.
- ◆ Do not place the device near, or over, radiators or heat registers.
- ◆ The device cabinet is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.
- ◆ The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built in enclosure unless adequate ventilation has been provided.
- ◆ Never spill liquid of any kind on the device.
- ◆ Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- ◆ The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- ◆ To prevent damage to your installation it is important that all devices are properly grounded.
- ◆ Do not allow anything to rest on the power cord or cables. Route the power cord and cables so that they cannot be stepped on or tripped over.
- ◆ Position system cables and power cables carefully; Be sure that nothing rests on any cables.
- ◆ Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.
- ◆ Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.

- ◆ If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.
  - ◆ The power cord or plug has become damaged or frayed.
  - ◆ Liquid has been spilled into the device.
  - ◆ The device has been exposed to rain or water.
  - ◆ The device has been dropped, or the cabinet has been damaged.
  - ◆ The device exhibits a distinct change in performance, indicating a need for service.
  - ◆ The device does not operate normally when the operating instructions are followed.
- ◆ Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that will require extensive work by a qualified technician to repair.

## Technical Support

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### International

- ◆ For online technical support – including troubleshooting, documentation, and software updates: <http://support.aten.com>
- ◆ For telephone support, see *Telephone Support*, page iv:

### North America

Email Support		support@aten-usa.com
Online Technical Support	Troubleshooting Documentation Software Updates	<a href="http://www.aten-usa.com/support">http://www.aten-usa.com/support</a>
Telephone Support		1-888-999-ATEN ext 4988 1-949-428-1111

When you contact us, please have the following information ready beforehand:

- ◆ Product model number, serial number, and date of purchase
- ◆ Your computer configuration, including operating system, revision level, expansion cards, and software
- ◆ Any error messages displayed at the time the error occurred
- ◆ The sequence of operations that led up to the error
- ◆ Any other information you feel may be of help

## Supported USB Camera List

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### Supported Webcam and Video Resolution

Brand	Model No.	3840 x 2160	1920 x 1080	1280 x 720
Logitech	BRIO 4K HD	24 / 30	24 / 30 / 60	24 / 30 / 60
Logitech	C920r HD Pro	–	24 / 30	24 / 30
Logitech	MeetUp	24 / 30	24 / 30 / 60	24 / 30 / 60
AVerMedia	PW513	30	30 / 60	30 / 60
AVerMedia	PW515	24 / 30	24 / 30 / 60	24 / 30 / 60
AVer	VB342+	30	30 / 60	30 / 60
AVer	PTC310HWV2	–	30 / 60	30 / 60
J5create	JVCU360	–	30	30
Huddly	IQ	–	–	–

# Specifications

Function	CAMLIVE MX UVC Camera Seamless Matrix
<b>Connectors</b>	
Video In	1 x USB 3.2 Gen1 Type-A Female (Blue) 1 x USB-C 3.2 Gen1 Female (Black)
Audio Inputs	1 x USB 2.0 Gen1 Type-A Female (White)
Video Output	1 x HDMI Type-A Female (PGM Video, Black)
USB Port	1 x USB 3.2 Gen1 Type-B Female (Blue) <b>Note:</b> USB Type-A to USB Type-B cable included in the package.
<b>Video Resolution</b>	<p>USB camera input:</p> <p>720p24, 720p25, 720p30, 720p50, 720p60 1080p24, 1080p25, 1080p30, 1080p50, 1080p60 2160p24, 2160p25, 2160p30</p> <p>PGM HDMI output:</p> <p>HD Video Standards 720p24, 720p25, 720p30, 720p50, 720p60 1080p24, 1080p25, 1080p30, 1080p50, 1080p60</p> <p>Ultra HD Video Standards 2160p24, 2160p25, 2160p30</p> <p>USB video output:</p> <p>4Kp30 (MJPEG) 1080p30, 720p24, 720p25, 720p30 (MJPEG)</p>
<b>Color Space</b>	NV12
<b>Audio Sampling</b>	16-bit PCM Audio, 48KHz
<b>Control</b>	
RS-232	<p>Interface: RJ-45</p> <p>Bit Rate: 50bps~921.6Kbps (Default: 9600bps)</p> <p>Stop Bit: 1 Stop Bit</p> <p>Data Bits: 8 Bits</p> <p>Parity: None</p> <p>Signal: TxD, RxD, GND</p>

Function	CAMLIVE MX UVC Camera Seamless Matrix
RS-485	PTZ Control Support Protocol: VISCA Interface: Terminal Block Flow Control N/A FIFO 64 bytes Bit Rate: 50bps~115200bps (Default: 9600bps) Stop Bit: 1 Stop Bit Data Bits: 8 Bits Parity: None Signal: Data+(B), Data-(A), GND Protection IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power1 kV Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m IEC 61000-4-8 PFMF
<b>Environmental</b>	
Operating Temperature	0 - 40 °C
Storage Temperature	-20 – 60 °C
Humidity	0 - 80% RH, Non-Condensing
<b>Minimum Hardware Requirement</b>	PC/Mac: ♦ CPU: Intel® i3 Dual Core 2.8Ghz or above ♦ RAM: 4GB or above ♦ 1 x USB Type-A Interface
<b>OS Support</b>	Windows 10 or above macOS 12 or later
<b>Physical Properties</b>	
Housing	Metal
Weight	0.98 kg (2.16 lb)
Dimensions (L x W x H)	16.46 x 20.00 x 4.40 cm (6.48 x 7.87 x 1.73 in)
<b>Power Inputs</b>	
Power Adapter	DC power adapter with power cable IEC C13, 100-240Vac

Function	CAMLIVE MX UVC Camera Seamless Matrix
Power Consumption	DC12V:6.50W:92BTU/h <b>Note:</b> <ul style="list-style-type: none"><li>◆ The measurement in Watts indicates the typical power consumption of the device with no external loading.</li><li>◆ The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.</li></ul>

## **ATEN Warranty Policy**

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The warranty policy may vary by product category and region of purchase. For details, please visit ATEN's official website, select your purchase counties/regions and then go to the Support Center, or contact your local ATEN sales representative for further assistance.

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