



Simply Better Connections

UC3430

CAMLIVE PRO 4K 4-Input HDMI
to USB Video Switcher
User Manual

Compliance Statements

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital service, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Reorient or relocate the receiving antenna.
- ◆ Increase the separation between the equipment and receiver.
- ◆ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ◆ Consult the dealer or an experienced radio/TV technician for help.

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.



KCC Statement

유선 제품용 / B 급 기기 (가정용 방송 통신 기기)
 이 기기는 가정용 (B 급) 전자파적합기기로서 주로 가정에서 사용하는
 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Industry Canada Statement

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

CAN ICES-003 (B) / NMB-003 (B)

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

Online Registration

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

International	http://eservice.aten.com
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Telephone Support

For telephone support, call this number:

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

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

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	http://www.aten.com
North America	http://www.aten-usa.com

Package Contents

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

1 UC3430 CAMLIVE PRO 4K 4-Input HDMI to USB Video Switcher

1 USB-C to USB-C cable

1 USB Type-A to USB-C cable

1 power adapter and power cord

1 user instructions

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About this Manual

This user manual is provided to help you get the most out of your CAMLIVE PRO 4K unit. It covers all aspects of the device, including installation, configuration, and operation.

The model covered in this manual is:

Model	Product Name
UC3430	CAMLIVE™ PRO 4K 4-Input HDMI to USB Video Switcher

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

Chapter 1, Introduction, introduces you to the CAMLIVE PRO 4K, 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 PRO 4K.

Chapter 3, Livestream / Record Setup, explains how to find CAMLIVE on your system and guides you to set up video and audio sources using an example (live-stream / record software / platform).

Chapter 4, ATEN OnAir Lite App explains how to download and configure the CAMLIVE PRO 4K's OnAir Lite app.


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

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 Enter 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 PRO 4K (UC3430) 4-Input HDMI to USB Video Switcher captures up to four 4K @ 60 HDM inputs, enabling users to mix dual video signals into one single stream while supporting multiple output options, including 4K @ 60 HDMI PGM / Loop-through for multiview screen purposes and 4K @ 30 USB-C output for live broadcast on the Internet. The USB-C output supports popular streaming software including Zoom, Microsoft Teams, Youtube, Facebook, GoToWebinar, Open Broadcaster, XSplit Broadcaster, and Twitch on Windows and Mac. Plus, the CAMLIVE PRO 4K features audio mixer functionalities to mix up to 4 HDMI audios and 1 line-level audio for users to add live narration / music to the content, boosting the production value of your creation.

When working with the intuitive ATEN OnAir Lite app, users can remotely control device settings in real-time, from multiple AV source switching / mixing, content cropping / resizing, layout to transitions. Apart from the versatile transition effects, the PiP / PbP / PoP functions and the support for Chroma Key help users create a dynamic presentation that will never bore the audience. In order to amplify brand identity, users are allowed to add logos in PNG / BMP / JPG format to the content. Apart from the app, the CAMLIVE PRO 4K is also controllable through its front panel pushbuttons and RJ-45 port for serial control via ATEN VK Control System.

The CAMLIVE PRO 4K works with a rack mount kit (sold separately) to give installation flexibility in media cabinets or DIT stations. With the switcher's one-stop programming and streaming functionalities that work on Windows / Mac platforms, multi-camera streaming in scenarios in need of sharp, vivid UHD quality such as multi-cam studios, corporate conferences, lecture halls, houses of worship, and live events, has never been so easy.

Features

- ◆ Captures 4 channels of 4K @ 60 HDMI, mixes and switches the streams while providing audio mixer functionalities and seamless transition for pro-level broadcasting
- ◆ Multiple output options:
 - ◆ HDMI PGM / Loop-through at 4K @ 60 for multiview screen purposes
 - ◆ USB-C output 4K @ 30 for live broadcast on the Internet
- ◆ Built-in audio mixer - mixes up to 4 HDMI audios and 1 line-level audio for adding live narration / music to the content
- ◆ Versatile control methods via the front panel pushbuttons, RJ-45 port for serial control via ATEN VK Control System, and ATEN OnAir Lite app
- ◆ ATEN OnAir Lite app — users can remotely control device settings in real-time, including multiple AV source switching / mixing, content cropping / resizing, layout options (full screen / PiP / PbP / PoP), transitions, Chroma Key, and logo adding
- ◆ Compatible with popular streaming software including Zoom, Microsoft Teams, Youtube, Facebook, GoToWebinar, Open Broadcaster, XSplit Broadcaster, and Twitch
- ◆ Supports UVC / UAC v1.1
- ◆ Plug-and-Play functionality with USB-C 3.2 Gen 1 compliance
- ◆ Works with major operating systems: Windows[®] and Mac OS X[®]

Planning the Installation

Requirements

Prepare the following before installing the CAMLIVE PRO 4K unit:

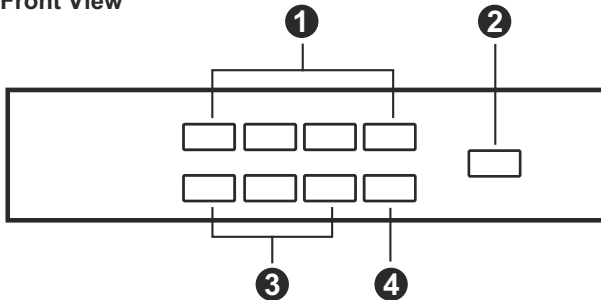
- ◆ 4 HDMI source devices
- ◆ 2 HDMI displays
- ◆ 1 hardware / software controller
- ◆ 1 audio input source
- ◆ 1 audio output source
- ◆ 1 USB-C enabled computer

Supported Operating System and Requirements

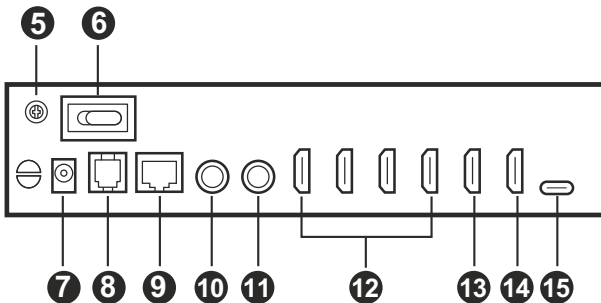
Operating System	Minimum Hardware Requirement
Windows 10 or above	CPU: Intel® i3 Dual Core 2.8Ghz or higher RAM: 4GB or more One USB-C Interface or USB-A Interface

Components

Front View



Rear View



No.	Component	Description
1	port selection pushbuttons	Press a port selection pushbutton to bring the video and audio focus to the HDMI source attached to its corresponding port. Please see <i>Selecting a Layout and Output Source(s)</i> , page 8 for more information.
2	on air pushbutton (USB video on / off control)	Press to broadcast the selected HDMI source.
3	layout selection pushbuttons	Press to select a layout option between full screen, PiP (Picture in Picture), and PbP (Picture by Picture). Please see <i>Selecting a Layout and Output Source(s)</i> , page 8 for more information.
4	HDMI loop out pushbutton	Press to bring the selected HDMI source to the HDMI-enabled monitor connected to the HDMI loop out port. Please see <i>Selecting a Layout and Output Source(s)</i> , page 8 for more information.

No.	Component	Description
5	grounding terminal	The grounding wire used to ground the switch attaches here.
6	power switch	Switches the unit's power on and off.
7	power jack	The power adapter plugs here.
8	RJ-11 port	Not applicable for now, reserved for future expansion.
9	RJ-45 port (RS-232 control)	Connects to a control system (e.g., VK Control Box) via Cat 5 cable for control purposes. For more information, please see VK Control Box's user manual.
10	line input port	Connects to an audio input device, e.g., audio mixer.
11	line output port	Connects to an audio output device, e.g., audio amplifier.
12	HDMI input ports	Connect up to four HDMI input sources.
13	HDMI output port (PGM)	Connects to an HDMI-enabled display for programmed (PGM) video output.
14	HDMI output port (loop out)	Connects to an HDMI-enabled display for HDMI loop out video output.
15	USB-C port	Connects to a host.

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Chapter 2

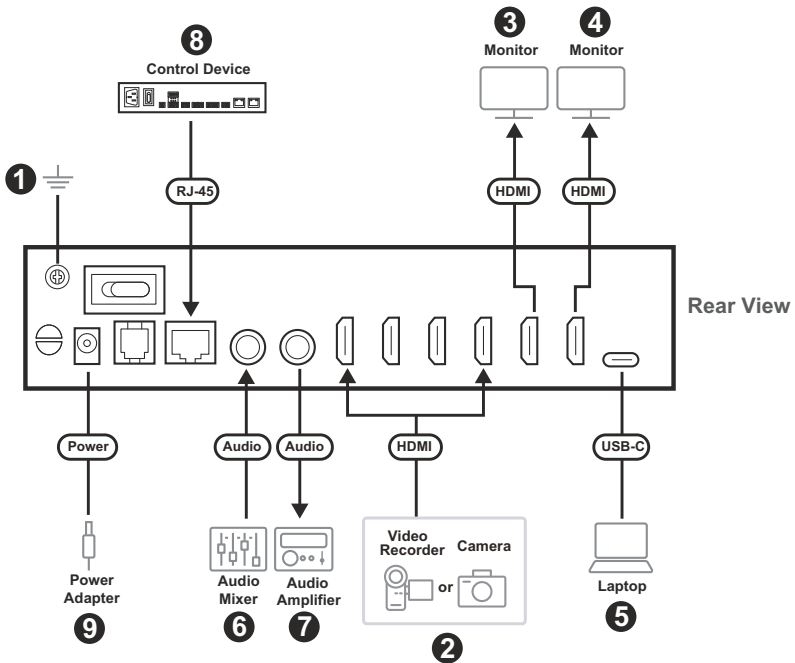
Hardware Setup



Please review the safety information regarding the placement of this device in *Safety Instructions*, page 47.

Connecting the CAMLIVE PRO 4K Unit

Follow the steps below to connect the CAMLIVE PRO 4K.



1. Ground the unit.
2. Connect up to 4 HDMI sources to the unit's HDMI input ports.
3. Connect an HDMI-enabled display to the unit's HDMI output port (PGM).
4. Connect an HDMI-enabled display to the unit's HDMI output port (loop out).

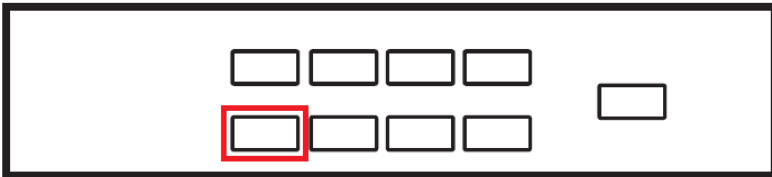
5. Connect a USB-C computer to the unit's USB-C port for OnAir Lite app / live stream use.
6. Connect an audio mixer to the unit's audio input port.
7. Connect an audio amplifier to the unit's audio output port.
8. Connect a control system (e.g., VK Control Box) to the unit's RJ-45 port via Cat 5 cable for control purposes. Please see *Serial Adapter Pin Assignments*, page 22 for more information.
9. Connect the power adapter to the unit's power jack.
10. Switch the power on.

Selecting a Layout and Output Source(s)

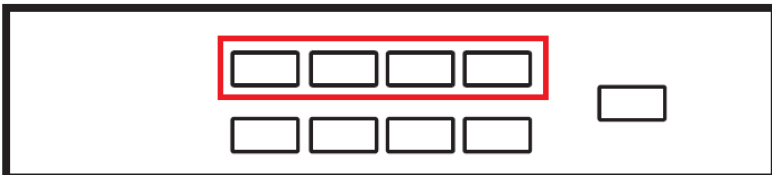
Please follow the steps below to select a desire layout and output source(s). Remember to first select a layout from the layout selection pushbuttons (full screen / PiP / PbP) or HDMI loop out pushbutton and then select output source(s).

Full Screen Layout

1. Press the full screen layout selection pushbutton.

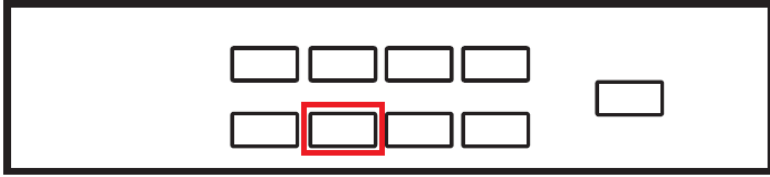


2. Select an output source for the full screen layout.

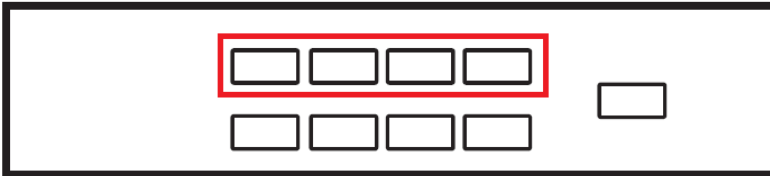


PiP Layout

1. Press the PiP layout selection pushbutton.

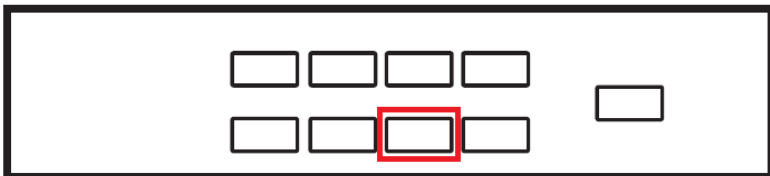


2. Select a main output source and then select another output source for the PiP layout.

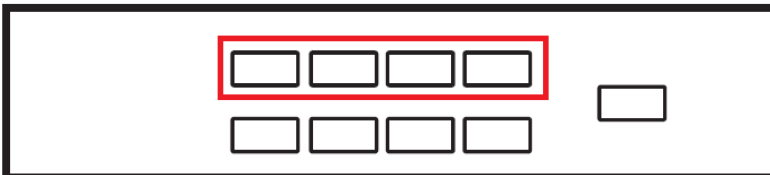


PbP Layout

1. Press the PbP layout selection pushbutton.

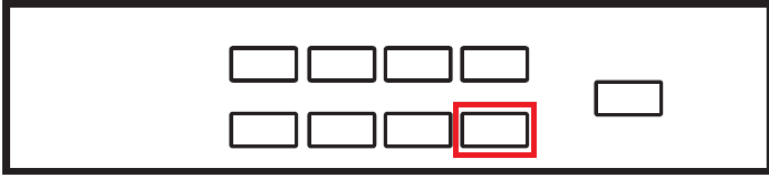


2. Select a main output source and then select another output source for the PbP layout.

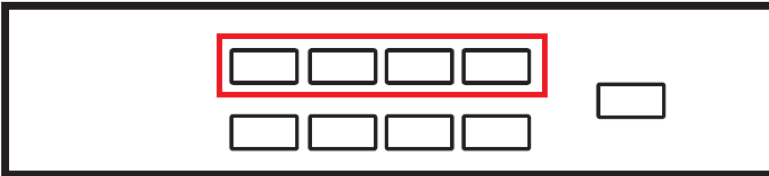


HDMI Loop Out

1. Press the HDMI loop out pushbutton.



2. Select an output source for the HDMI loop out.



Software

To enable CAMLIVE PRO 4K, 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>

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Chapter 3

Livestream / Record Setup

Livestream / Record Platform

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>

All trademarks are property of their respective owners.

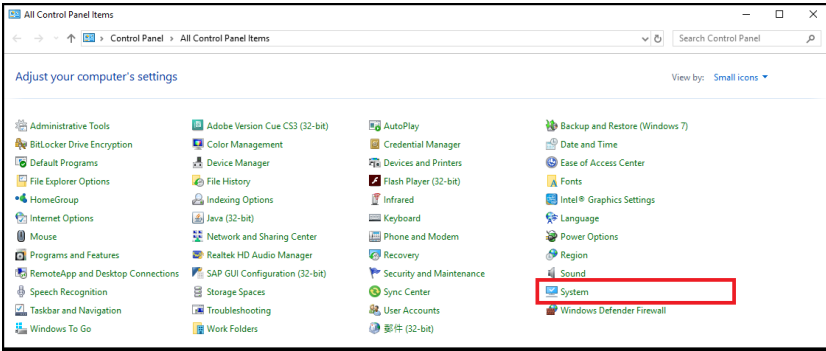
Discovering CAMLIVE on your System

CAMLIVE PRO 4K is a plug-and-play device, please make sure your system is able to discover it. After connecting CAMLIVE PRO 4K as shown in *Connecting the CAMLIVE PRO 4K Unit* on page 7, refer to the examples below on how your system may discover CAMLIVE PRO 4K.

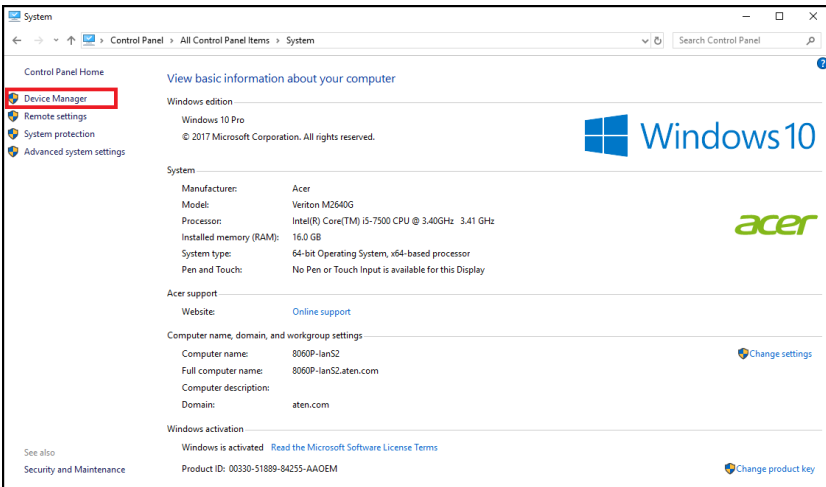
Windows Operating System

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

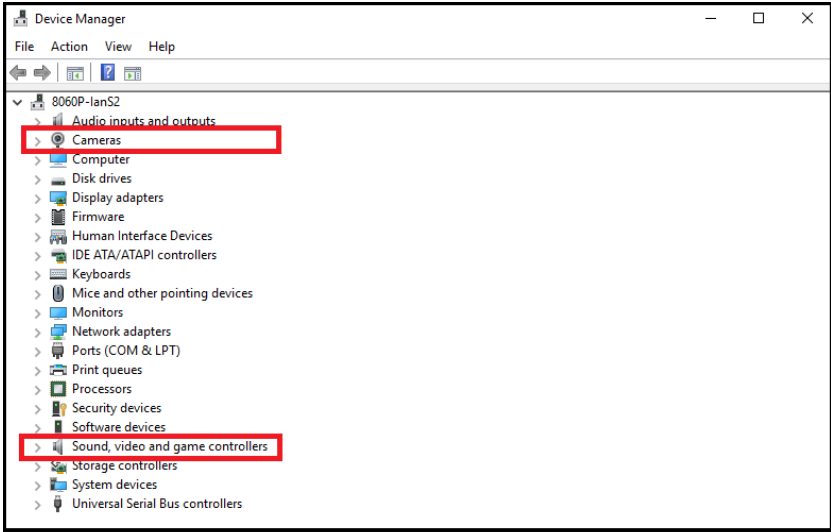
1. On a Windows 10 desktop, go to **Control Panel** and select **System**.



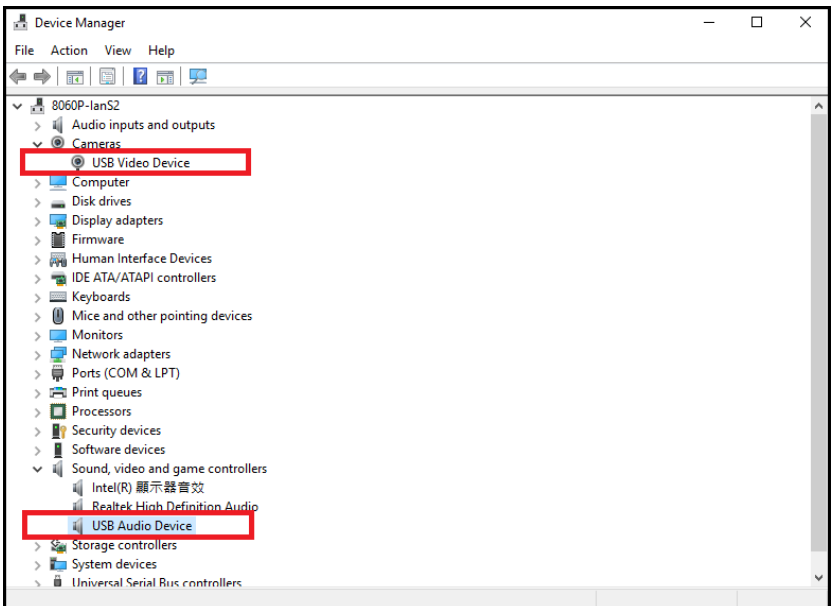
2. The System window appears, select **Device Manager**.



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 PRO 4K.

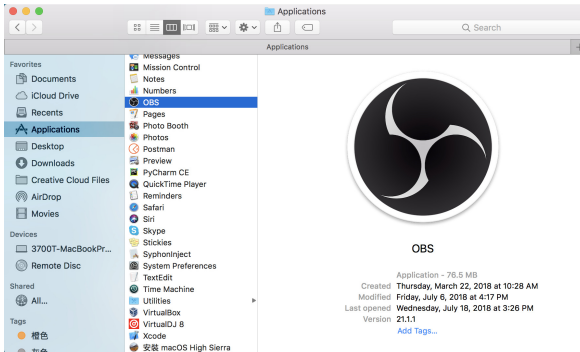


Video and Audio Setup

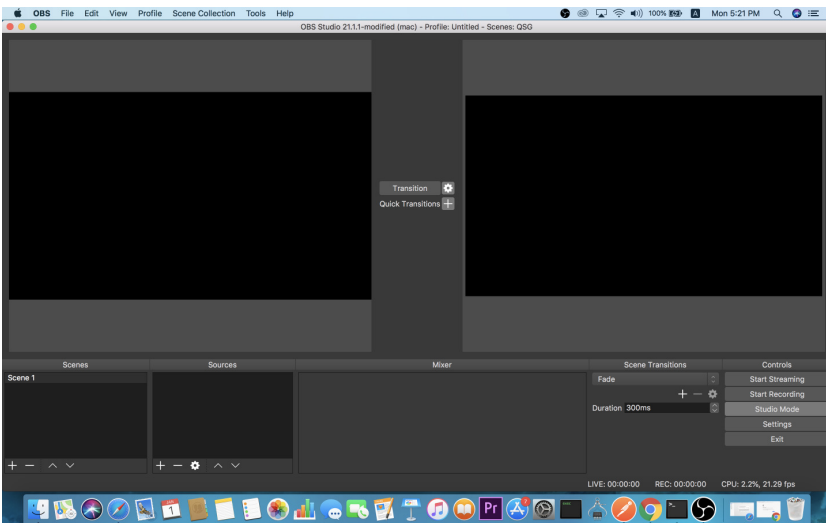
After your system discovers CAMLIVE PRO 4K, choose your livestream/record platform. You will need to setup the video and audio source coming from CAMLIVE PRO 4K.

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

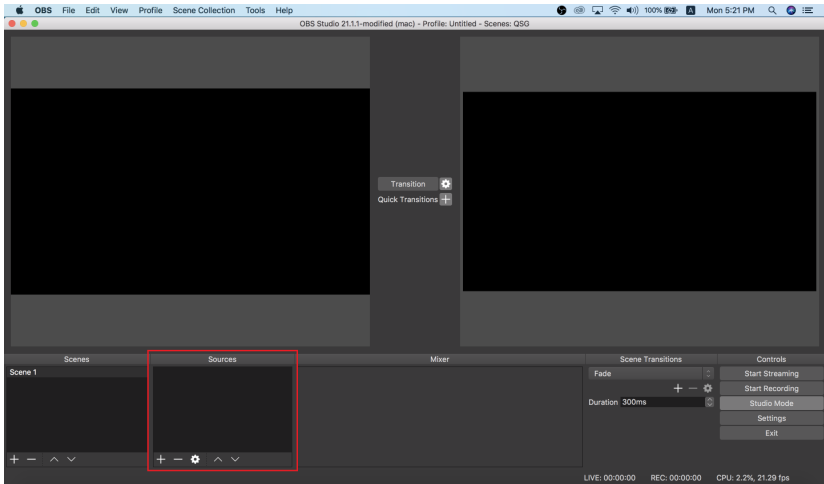
Note: OBS software is the example used in the setup steps below.



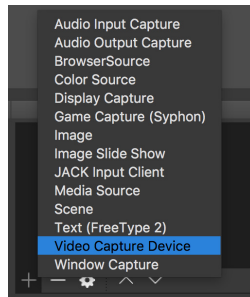
1. On your system, open the OBS software.



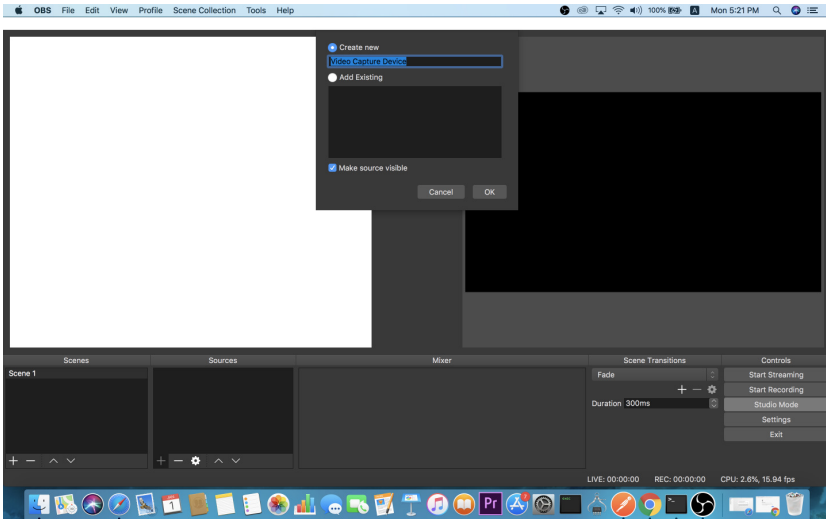
2. Locate and click the “+” button on the bottom of the “Sources” pane (outlined in red in the picture below) to open the add source menu:



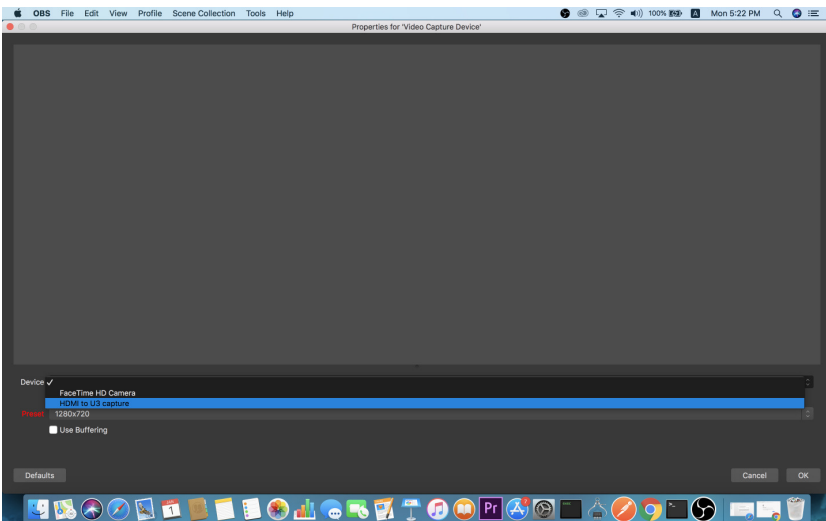
3. Select “Video Capture Device” or “Audio Capture Device.”



- 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 PRO 4K’s video/audio source. Both the video and audio sources of CAMLIVE PRO 4K have the name “HDMI to U3 capture”.

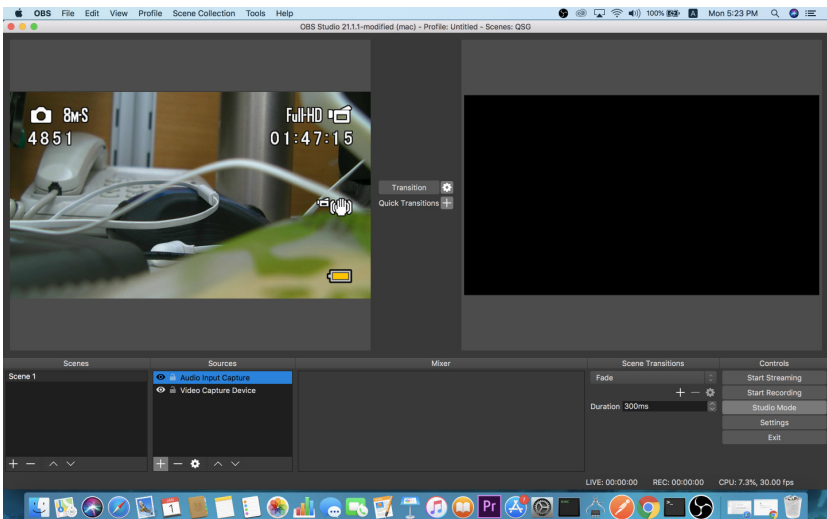


After selecting the video source, the image from CAMLIVE PRO 4K should be displayed as shown below.

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.

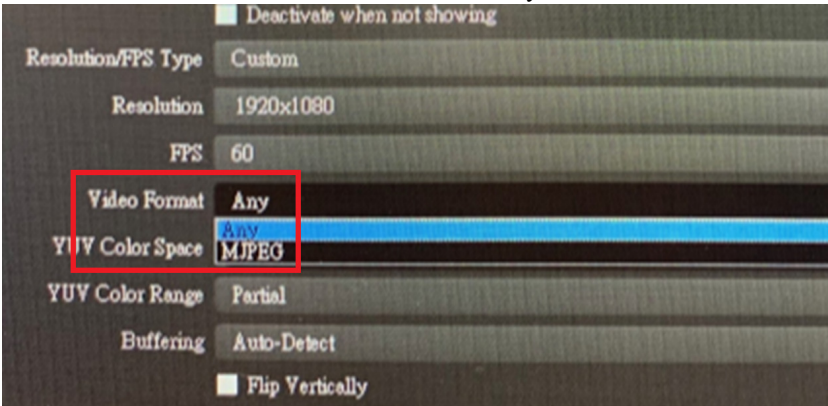
Using the USB Cables

When connecting CAMLIVE PRO 4K on a PC with a USB 2.0 interface, it will automatically set the provided compressed video quality to the MJPEG compression mode to fit the data bandwidth. For better video quality, we strongly recommend to connect CAMLIVE™ PRO to a USB 3.1 Gen1 interface.

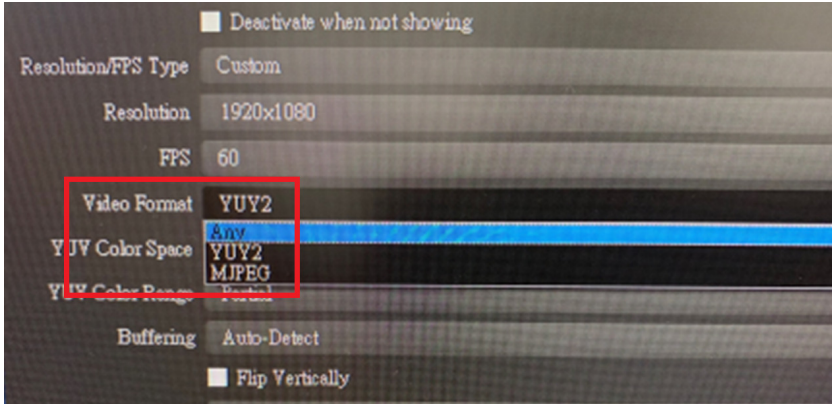
To make sure the result match your media output you wish to capture, please check the detected video format from your capture software first.

Capture device custom setting page examples displaying USB 3.1-RAW and USB 2.0-MJPEG on OBS software are shown below:

- ◆ USB 2.0 mode with MJPEG video format only



- ◆ USB 3.1 mode with RAW (YUY2) and MJPEG video formats



If you find that the captured media only has MJPEG format, simply flip the USB-C to USB-C cable connector connected to the CAMLIVE PRO 4K.

Serial Adapter Pin Assignments

To connect the CAMLIVE PRO 4K 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.

CAMLIVE PRO 4K		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 CAMLIVE PRO 4K 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: 115200
- ◆ Data Bit: 8 bit
- ◆ Parity: None
- ◆ Stop Bit: 1 bit
- ◆ Flow Control: off

RS-232 Commands

Command	Variable	Action
help	–	Lists all the supported commands with descriptions.
echo	on / off	Sets the echo on or off.
reboot	–	Reboots the CAMLIVE PRO 4K.
reset	–	Resets the CAMLIVE PRO 4K to its default configuration.
read	–	Gets the current firmware version and status.
scene	Scene: s00 / s01 / s02 / s03 / s04 / s05 / s06 / s07	Switches to a specified scene.
baud	<ul style="list-style-type: none"> ◆ Baud Rate: 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 / 230400 / 460800 / 921600 ◆ Stop Bits: 1 / 2 ◆ Data Bits: 7 / 8 ◆ Flow Control: rtscts / xonoff / off 	<p>Sets the baud rate for the CAMLIVE PRO 4K.</p> <p>Note: The flow control variable has to be entered at last.</p>
selfdiagnostic	–	Performs a self diagnostic.
fullscreen	HDMI Input: i1 / i2 / i3 / i4	Sets the specified HDMI input port to full-screen.
blackscreen	on / off	Sets the PGM black screen on or off.
logo	<ul style="list-style-type: none"> ◆ Enable / Disable: d on / d off ◆ Set Logo Position: p upleft / p upright / p downleft / p downright ◆ Tune Logo Position: o xxx [0-100] 	Sets the logo on or off and adjusts its position.

Command	Variable	Action
vborder	<ul style="list-style-type: none"> ◆ Enable / Disable: d on / d off ◆ Video Border Color: c xxx xxx xxx [0-255] ◆ Video Border Size: s x [1-7] 	Sets the video border on or off and adjusts its color and size.
transition	<ul style="list-style-type: none"> ◆ Transition Style: st 01 (Transition W) / st 02 (Transition RD) / st 03 (Transition LD) / st 04 (Transition Up) / st 05 (Transition B) / st 06 (Transition R) / st 07 (Transition L) / st 08 (Transition Down) ◆ Transition Speed: sp 01 (Fast) / sp 02 (Medium) / sp 03 (Slow) 	Sets the transition style and transition speed.
audioconfig	<ul style="list-style-type: none"> ◆ Select Input: i1 (HDMI 1) / i2 (HDMI 2) / i3 (HDMI 3) / i4 (HDMI 4) / pgm / linein / lineout ◆ Set Control: c on / c off / c afv ◆ Set Audio Balance: b xxx [-127-127] ◆ Set Audio Volume: v xxx [100-10] ◆ Compressor Switch: cp on / cp off ◆ Audio Type: ty mono / ty stereo ◆ Threshold: th xx [-20-0] ◆ Lineout Audio Source: s i1 (HDMI 1) / s i2 (HDMI 2) / s i3 (HDMI 3) / s i4 (HDMI 4) / s pgm / s linein 	Sets the the audio configurations.

Command	Variable	Action
chromakey	<ul style="list-style-type: none"> ◆ Enable / Disable: en on / en off ◆ Chroma Key Input: s i1 (HDMI 1) / s i2 (HDMI 2) / s i3 (HDMI 3) / s i4 (HDMI 4) ◆ Chromakey Color: c xxx xxx xxx [0-255] ◆ Color Range: cr xxx [0-100] ◆ Threshold: th xxx [0-100] ◆ Softness Value: sf xxx [0-100] 	Sets the chromakey on or off and its configuration.
videoresolution	<ul style="list-style-type: none"> ◆ Video Resolution: 720p / 1080p / 4k ◆ Frame Rate: @ 24 / @ 25 / @ 30 / @ 50 / @ 60 	Sets the PGM video resolution and frame rate.

Command	Variable	Action
sceneconfig	<ul style="list-style-type: none"> ◆ Scene Select: 0 / 1 / 2 / 3 / 4 / 5 / 6 / 7 ◆ Layout Mode: m full / m pip / m pbph / m pbpv ◆ Input Source 1 (full / pip background screen / pbph left screen / pbpv top screen): s1 1 (HDMI 1) / s1 2 (HDMI 2) / s1 3 (HDMI 3) / s1 4 (HDMI 4) ◆ Input Source 1 Size: p1 [0-1279] [0-719] [1-1280] [1-720] (if resolution is set to 720p) / p1 [0-1919] [0-1079] [1-1920] [1-1080] (if resolution is set to 1080p) / p1 [0-3839] [0-2159] [1-3840] [1-2160] (if resolution is set to 4k) ◆ Input Source 2 (pip foreground / pbph right screen / pbpv bottom screen): s2 1 (HDMI 1) / s2 2 (HDMI 2) / s2 3 (HDMI 3) / s2 4 (HDMI 4) ◆ Input Source 2 Size: p2 [0-1279] [0-719] [1-1280] [1-720] (if resolution is set to 720p) / p2 [0-1919] [0-1079] [1-1920] [1-1080] (if resolution is set to 1080p) / p2 [0-3839] [0-2159] [1-3840] [1-2160] (if resolution is set to 4k) ◆ Resolution: res 720p (1280 x 720) / res 1080p (1920 x 1080) / res 4k (3840 x 2160) 	Sets the scene configuration between full, picture in picture, picture by picture horizontal, and picture by picture vertical, source input, source size, and resolution.

Command	Variable	Action
multiview	<ul style="list-style-type: none"> ◆ Output Source: o pgm / o loop ◆ Input Source: i 01 (HDMI 1) / i 02 (HDMI 2) / i 03 (HDMI 3) / i 04 (HDMI 4) ◆ Multiview Mode: full / pip1 (sets pip foreground screen to bottom-right) / pip2 (sets pip foreground screen to bottom-left) / pip3 (sets pip foreground screen to top-left) / pip4 (sets pip foreground screen to top-right) / pbp1 (with blackscreen) / pbp2 (without blackscreen) 	Sets the multiview configuration.
lock	<ul style="list-style-type: none"> ◆ Password (6 digits): xxxxxx [0-9] ◆ Empty password can also lock the front panel 	Locks the front panel operation.
unlock	<ul style="list-style-type: none"> ◆ Password (6 digits): xxxxxx [0-9] ◆ If no password was used to lock the front panel, use command "unlock" to unlock 	Unlocks the front panel operation.

Chapter 4

ATEN OnAir Lite App

ATEN OnAir Lite Application

ATEN OnAir Lite app acts as the central controller for CAMLIVE PRO 4K. The app's design is a control panel where you can monitor program results, edit scenes, setup video and audio settings, etc. Download the ATEN OnAir Lite app from the Microsoft and install it on your laptop and PC.

Supported Systems

The ATEN OnAir Lite app supports the following mobile operating systems:

Mobile Operating System
Windows 10 or above

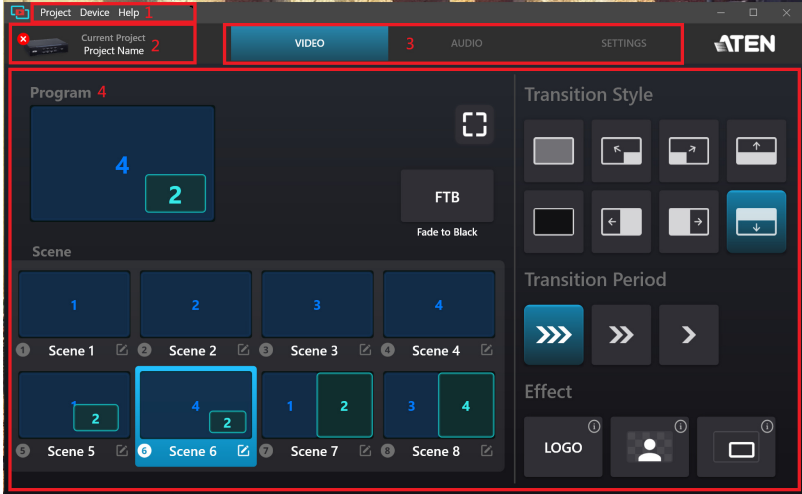
Installing the ATEN OnAir Lite App

1. Install the ATEN OnAir Lite app on a Windows laptop or PC.
 - a) Go to Microsoft Store.
 - b) In the search box, type “CAMLIVE PRO 4K”.
 - c) Click the ATEN OnAir Lite to download the app.
2. From your downloads file, double-click the downloaded package and click **Install**.
3. Follow the on-screen instructions.

When you open the ATEN OnAir Lite app, the screen below appears.



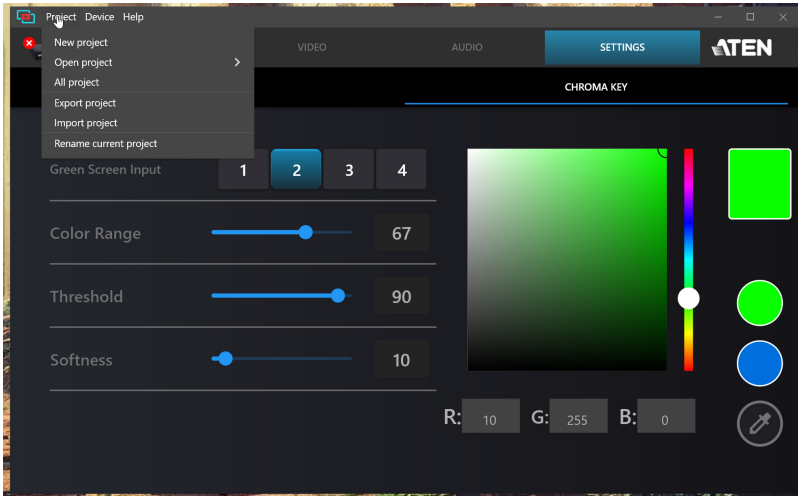
Page Components



No.	Component	Description
1	Project / Device / Help	<ul style="list-style-type: none">◆ Project: click to create new project, open, import, or export projects, see all projects, and rename current project. See <i>Project Settings</i>, page 32.◆ Device: click to disconnect the device, see or upgrade firmware and software version. See <i>Device Settings</i>, page 32.◆ Help: click to run the tutorial and to see firmware and software version. See <i>Help</i>, page 33.
2	System Information	Click to see or upgrade the current software version and its information, or disconnect with the device. See <i>System Information</i> , page 33.
3	Deck Selector	Tap to select the desired configuration deck. Three decks are available: Video Mixer, Audio Mixer, and Settings. Video Mixer: see <i>Video Mixer</i> , page 34. Audio Mixer: see <i>Audio Mixer</i> , page 41. Settings: see <i>Settings Panel</i> , page 44.
4	Deck Content	The content depends on the selected deck.

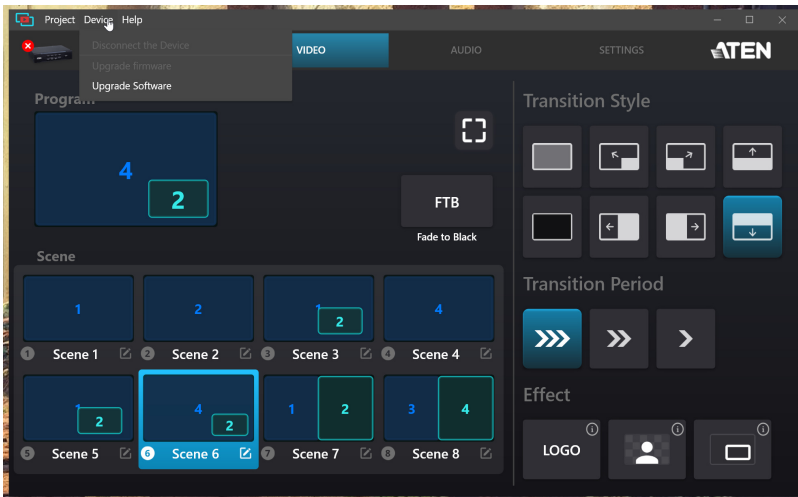
Project Settings

Click to modify your project name, create, open, import, or export a project, and see available projects.



Device Settings

Click to browse or upgrade the current software and firmware version, or disconnect with the device.



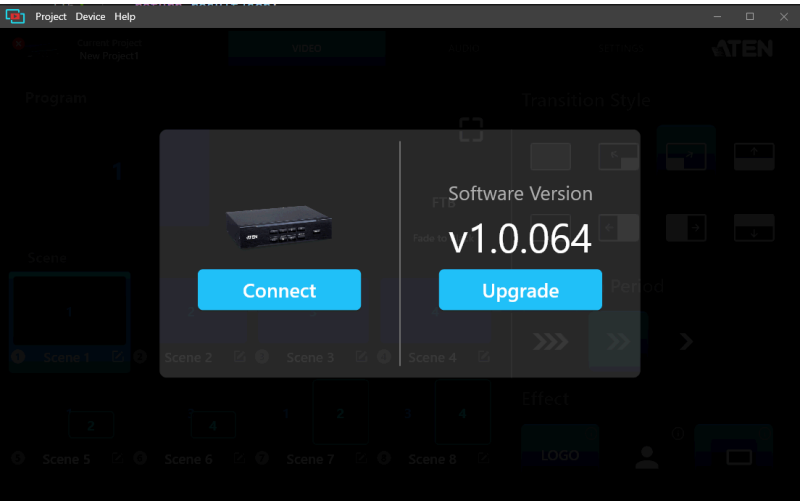
Help

Click to run the tutorial and to see the firmware and software version.



System Information

Click to connect or disconnect with the device, and to see or upgrade the current software version and its information.



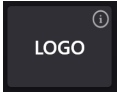
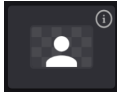

Video Mixer

The Video Mixer deck page allows you to adjust effect on your video, scene selection and editing, and transition control.

The components of the page is shown below:




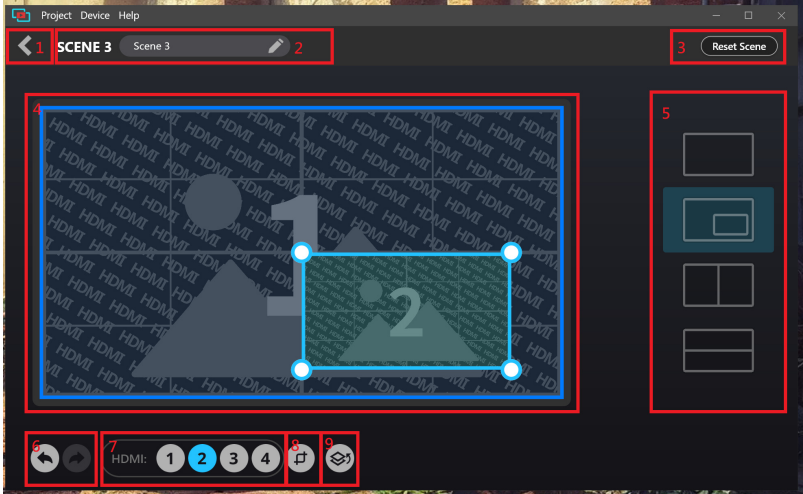
No.	Component	Description
1	Program	The program scene, or the on-air video output of the system.
2	Enlarge	Click to view the video source in full screen mode.
3	Fade to Black	Click to fade to video source to black screen.
4	Transition Style	Selects a transition style for the current stream (PGM).
5	Scene Selector	8 scenes are shown here. Tap a scene to put the scene into the program scene.
6	Transition Period	Specifies a time to begin the transition after 1, 2, and 3 seconds.



No.	Component	Description
7	Effect Control	<p>Click  to enable the logo effect on the HDMI display connected to the HDMI program output port. See <i>LOGO Position</i>, page 45 for more details.</p> <p>Click  to enable the chroma key effect on the HDMI display connected to the HDMI program output port. See <i>Chroma Key</i>, page 45 for more details.</p> <p>Click  to show a video border around the selected scene to appear on the HDMI display connected to the HDMI program output port.</p>

Scene Editor



To edit a scene, follow the steps below.

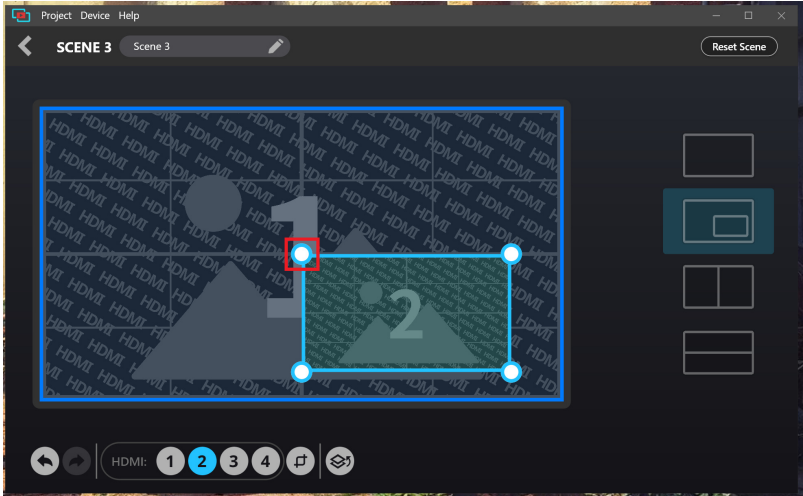
1. Select a scene from the scene selector.
2. Tap the  button from the selected scene on the Video Mixer page.




No.	Component	Description
1	Return Button	Clicks to return to the Video Mixer page
2	Scene Name	This region displays the scene name. Click to edit the scene name.
3	Reset Button	Clicks to reset the current scene.
4	HDMI Display(s) and Resize Tool	Displays the selected HDMI display(s) with resize / crop tool. To resize the HDMI display, see <i>Resize</i> , page 37.
5	Layout Selection	Clicks to select a preferred layout. You can also resize the dual-view.
6	Undo / Redo	<ul style="list-style-type: none"> ◆ Click  to undo changes. ◆ Click  to redo changes.
7	HDMI Sources	Clicks to select an HDMI source for the selected display(s).
8	Crop Button	Clicks to crop the HDMI display, see <i>Crop</i> , page 38.
9	Overlay Button	Clicks to switch between main display and overlay display, see <i>Reset Scene Button</i> , page 40. You can also resize and crop the overlay scene.

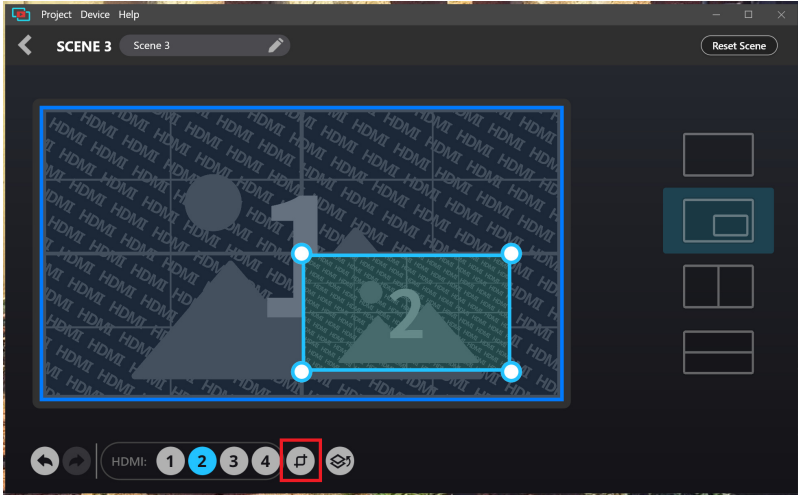
Resize

To resize HDMI display(s), select a scene and select an HDMI display. A resize tool  will be visible on the selected HDMI display(s) in the scene editor page. Click and hold to drag the resize tool  to resize the display(s).




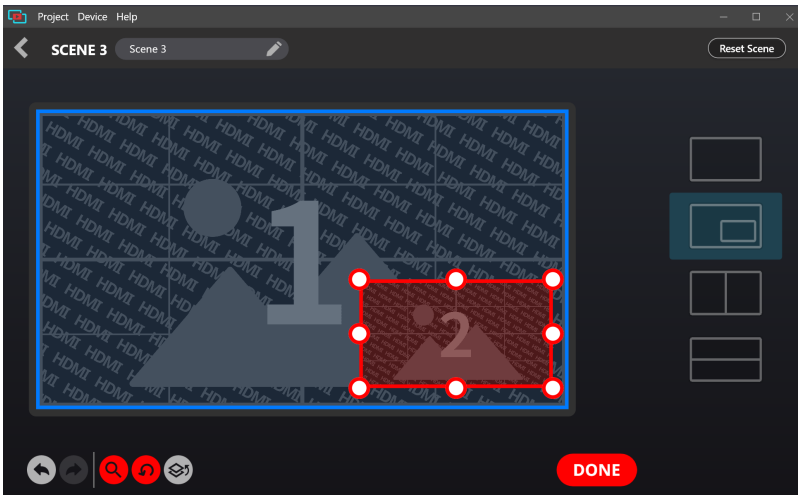
Crop




To crop HDMI display(s), select a scene and select an HDMI display. A crop tool  will be visible on the selected HDMI display(s) in the scene editor page.




To crop the display(s), follow the steps below.

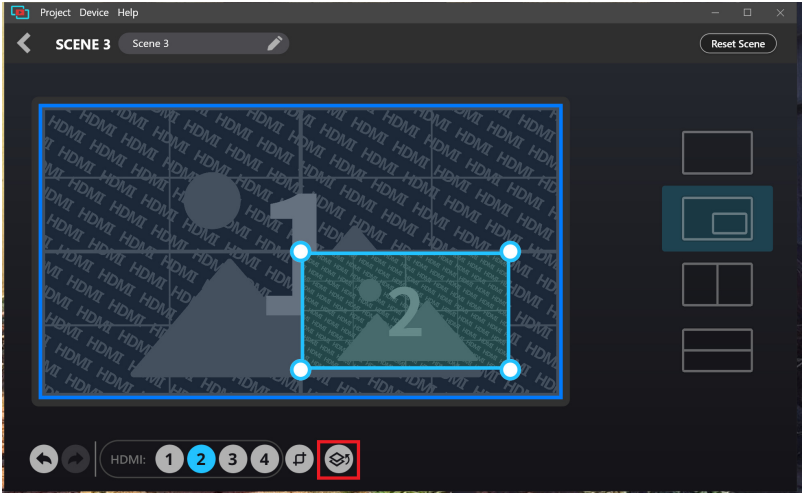
1. Select an HDMI display, click the crop tool  and the screen below appears.



- 2. Click and hold to drag the crop tool  to adjust the cropping area.
- 3. (Optional) Click  to enlarge the crop display to help you easily adjust the cropping area.
- 4. Click  to relocate the cropping area.
- 5. When completed, click **Done**.

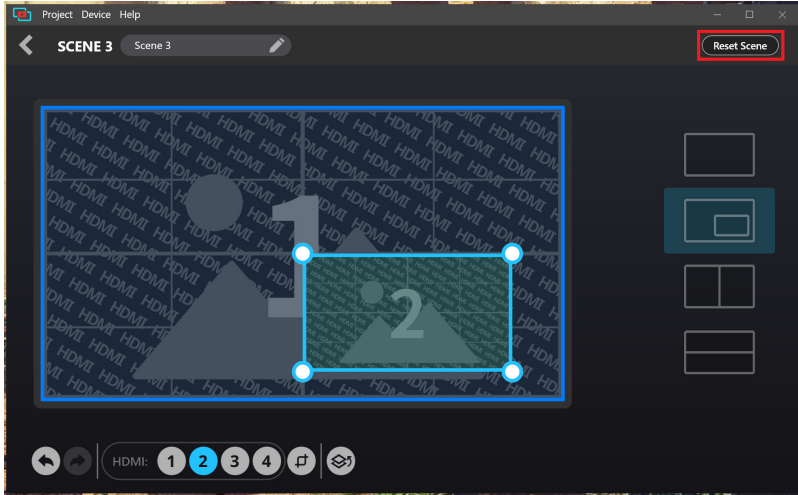
Overlay Button

To view the overly display from a dual-view scene, tap  from the Scene Editor page.



Reset Scene Button

To reset or undo any changes made to the selected scene, tap **Reset Scene** from the Scene Editor page. A warning message appears, click **OK**.

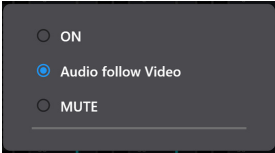
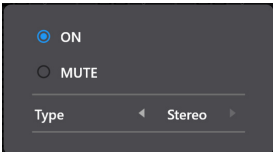
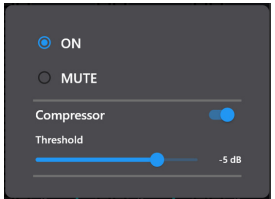


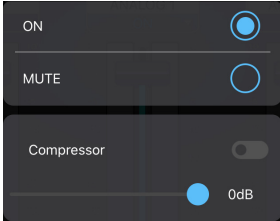
Audio Mixer

The components of the Audio Mixer deck page is shown below:



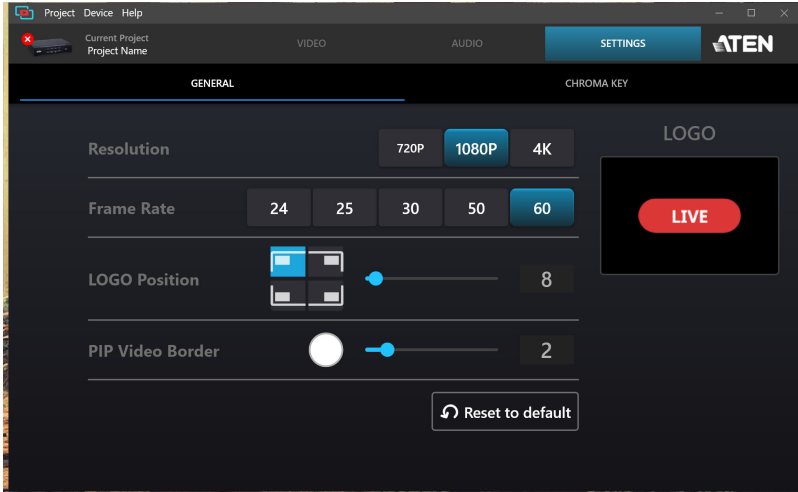
No.	Component	Description
1	Audio Level Control	Slides the volume slider to control the volume of each audio source.

No.	Component	Description
2	Audio Control	<p>Clicks to select and adjust audio control.</p> <p>HDMI1 / HDMI2 / HDMI 3 / HDMI4: Clicks to select an audio control for HDMI 1, HDMI 2, HDMI 3, and HDMI 4 between AFV, ON, and MUTE.</p>  <p>AFV (Audio-Follow-Video): Broadcasting the source's video and audio at the same time. ON: The audio is turned on (unmuted). MUTE: The audio is turned off (muted).</p> <p>LINE IN: Clicks to select an audio control for LINE IN between ON and MUTE, and audio type between stereo and mono.</p>  <p>ON: The audio is turned on (unmuted). MUTE: The audio is turned off (muted). Type: Select between stereo and mono audio type.</p> <p>PGM: Clicks to select an audio control for PGM between ON and MUTE, and adjust compressor settings..</p>  <p>ON: The audio is turned on (unmuted). MUTE: The audio is turned off (muted). Compressor: Clicks to enable or disable the compressor function and drag the dial to adjust the threshold. The default setting is disabled.</p>

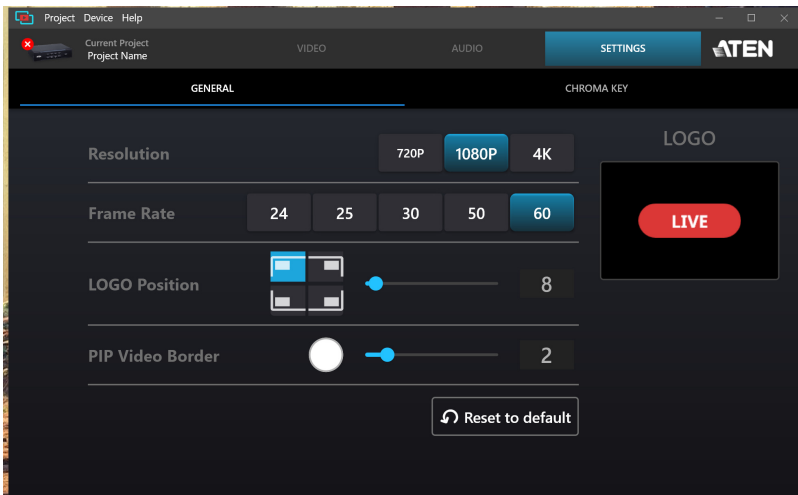
No.	Component	Description
		<p>LINE OUT: Clicks to select an audio control for LINE OUT between ON and MUTE, audio source, and adjust compressor settings.</p>  <p>ON: The audio is turned on (unmuted). MUTE: The audio is turned off (muted). Audio Source: Selects and audio output options between PGM, LINE IN, HDMI-1, HDMI-2, HDMI-3, or HDMI-4. Compressor: Clicks to enable or disable the compressor function and drag the dial to adjust the threshold. The default setting is disabled.</p>
3	L/R Balance Control	Clicks and hold to drag and control which side of the sound source is to be more emphasized.
4	PGM and LINE OUT Level Control	Slides the volume slider to control the volume of PGM and LINE OUT.

Settings Panel

The Settings deck page is shown below:



General



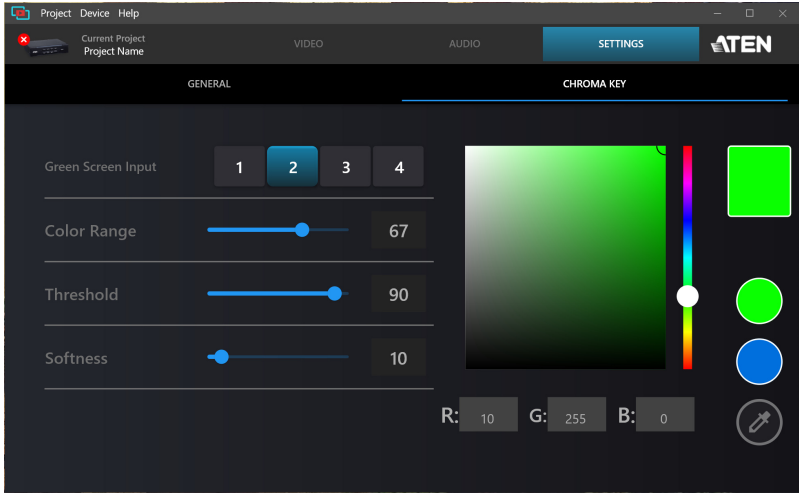
Component	Description
Resolution	Selects a resolution for the HDMI display.
Frame Rate	Selects a frame rate for the HDMI display.

Component	Description
LOGO Position	<ul style="list-style-type: none">◆ Selects a logo position for the logo to be displayed on the HDMI-enabled display.◆ Adjusts the logo position close or further to the corner that you selected from the above logo position.
PiP Video Border	<ul style="list-style-type: none">◆ Selects a color for the video border to appear on the HDMI display connected to the HDMI program output port.◆ Adjusts the thickness of the video border.
Reset to Default	Resets the CAMLIVE PRO 4K back to the factory settings. A warning message appears, click OK .
LOGO	Clicks to select an image file for your logo. <ul style="list-style-type: none">◆ The maximum logo size is 352 x 352 pixels, the image size will be proportionally scaled down automatically to fit the logo screen.◆ The supported image formats are PNG / BMP / JPG.

Chroma Key

Chroma key allows user to composite two HDMI sources based on a color range, it usually goes hand-in-hand with a green screen. Our ATEN OnAir Lite app removes the color screen background and fill in the area with the HDMI sources.





Component	Description
Green Screen Input	Selects a target input for the Chroma Key.
Color Range	Adjust the color range for the colored background.
Threshold	Adjust the threshold for the colored background.
Softness	Adjust the softness for the colored background.

Safety Instructions

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

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	http://www.aten-usa.com/support
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

Specifications

Function	CAMLIVE PRO 4K
Connectors	
Video In	4 x HDMI Type-A Female (Black) (HDMI TMDS compatible and without the support of FRL/VRR/ALLM/eARC. Max. input video resolution up to 3840 x 2160p60 including stereo audio signals only)
USB Port	3.2 Gen1 USB-C Male (Black) Note: USB Type-A to USB-C and USB-C to USB-C cables included in the package.
Video Output	1 x HDMI Type-A Female (PGM Video, Black) 1 x HDMI Type-A Female (Loop-Thru Video, Black)
Audio Inputs	1 x Unbalanced Audio via 6.35mm TRS Connector (Black)
Audio Outputs	1x Unbalanced Audio via 6.35mm TRS Connector (Black)
Video Resolution	
Video HDMI Input	720p50, 720p60, 1080p25, 1080p30, 1080p50, 1080p60, 40960 x 2160 25p/30p/60p, 3840 x 2160 25p/30p/60p, HDMI unencrypted
PGM HDMI Video Output	720p: 1280 x 720 25p/30p/50p/60p 1080p: 1920 x 1080 24p/25p/30p/50p/60p 2160p: 3840 x 2160 24p/25p/30p/50p/60p HDMI unencrypted
Uncompressed USB Video (UVC) Stream with Audio (UAC)	720p: 1280 x 720 25p/30p/50p/60p 1080p: 1920 x 1080 24p/25p/30p/50p/60p 2160p: 3840 x 2160 24p/25p/30p
Audio Sampling	16-bit PCM Encoded Audio at 44.1KHz and 48KHz Sampling Rates
Environmental	
Operating Temperature	0 - 40 °C
Storage Temperature	-20 – 60 °C

Function	CAMLIVE PRO 4K
Humidity	0 - 80% RH, Non-Condensing
Minimum Hardware Requirement	PC/Mac: ♦CPU: Intel® i3 Dual Core 2.8Ghz or above ♦RAM: 4GB or above ♦One USB-C Interface or USB Type-A Interface
Control	
Contact In	RS-232 Connection via RJ45 Interface
RS-232	Flow Control: RTS/CTS, XON/XOFF FIFO: 64 bytes Baud Rate: 50bps ~921.6Kbps Stop Bit: 2 Stop Bits (9600 8N2) or 1 Stop Bit (1,1.5, 2) Parity: no parity Signal: TxD, RxD, RTS, CTS, DTR, DSR, GND
USB	Support ATEN OnAir Lite App, App downloadable from Microsoft Store
System Requirements	Windows 10 or above with UVC/UAC V1.1 Support Mac OS X 10.13 or later with UVC/UAC Support
OS Support	OnAir Lite App for Windows 10 or above only
Power Consumption	DC12V:20.49W:100BTU/h Note: ♦ The measurement in Watts indicates the typical power consumption of the device with no external loading. ♦ The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.
Physical Properties	
Housing	Metal
Weight	1.03 kg (2.27 lb)
Dimensions (L x W x H)	20.00 x 16.46 x 4.40 cm (7.87 x 6.48 x 1.73 in)

ATEN Warranty Policy

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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