AT-OME2-R2742

Omega 2 HDBaseT 3 4x2 Video Switcher with Dante Audio

Instructions for Use

Version 1.0



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Version Information

This section lists document revisions.

Version	Date	Notes
1.0	September 11, 2026	Initial release.

Sales & Customer Support

Main Office (US)	Hall Research, 1234 Lakeshore Dr Suite #150, Coppell, TX 75019
Support Hours	Monday – Friday, 8:00 a.m. – 6:00 p.m. (CST)
Website	https://www.hallresearch.com
Product Page	https://www.hallresearch.com/product/AT-OME2-R2742

IMPORTANT: Visit https://www.hallresearch.com/product/AT-OME2-R2742 for the latest firmware updates and Instructions for Use.

Warranty

To view the product warranty, use the following link: https://hallresearch.com/warranty

Important Safety Information

CAUTION: Risk of electric shock. Do not open the enclosure or expose it to rain or moisture. No user-serviceable parts inside. Refer servicing to qualified service personnel.

- Do not expose this apparatus to rain, moisture, dripping, or splashing, and do not place objects filled with liquids, such as vases, on the apparatus.
- Do not install or place this unit in a bookcase, built-in cabinet, or other confined space. Ensure the unit is well ventilated.
- To prevent the risk of electric shock or fire from overheating, do not obstruct the ventilation openings with newspapers, tablecloths, curtains, or similar items.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not place sources of naked flames, such as lighted candles, on the unit.
- Clean this apparatus only with a dry cloth.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Protect the power cord from being walked on or pinched, particularly at plugs.
- Only use attachments and accessories specified by the manufacturer.
- Refer all servicing to qualified service personnel.

FCC Compliance

This hardware 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.

Introduction

Overview

The AT-OME2-R2742 is a 4x2 matrix switcher designed for conference rooms. It provides 4x2 matrix switching and extends video, audio, and USB over HDBaseT 3.0. Two full-featured USB-C inputs and two HDMI + USB 3.2 host inputs connect laptops and room computers, and four local USB 3.2 device ports connect conferencing peripherals such as USB cameras, soundbars, and speakerphones. USB connectivity can also be extended over HDBaseT.

Audio configuration is flexible: HDMI audio, USB audio, and Dante audio can be routed to the local balanced audio output, and conference audio can be sent to Dante-enabled devices on the network through the Dante port.

Control interfaces include RS-232, RELAY, and SENSOR ports for integration with room devices. Three independent LAN ports support USB-to-Ethernet functions, and VLAN separation and 802.1X authentication let the switcher network and the USB network be isolated to meet security requirements.

A/V switching can be manual or automatic, with a dedicated fallback input. The switcher also supports HTTP and HTTPS configuration, CEC, RS-232, and IP display control, and a built-in Web UI and API control.

Features

- 4x2 conference room matrix switcher integrating video, audio, USB, control, and Ethernet.
- Two USB-C inputs and two HDMI + USB host inputs; all ports support locking cable connections.
- Full-featured USB-C inputs support 4K video, USB 3.2 data, audio in and out (UAC), USB Ethernet, and up to 100 W charging.
- USB-C IN 4 supports MST for dual-screen conferencing applications.
- Manual and automatic A/V switching, with a fallback input.
- USB host routing can follow the video or be set manually.
- Four USB 3.2 device ports for conferencing equipment such as cameras and speakerphones.
- Stereo balanced audio output; the audio source can be the USB host, de-embedded audio from a video output, or Dante.
- HDBaseT 3.0 output up to 100 m (330 ft) for video and USB extension in medium and large rooms.
- RS-232, RELAY, and occupancy SENSOR ports for connecting control and controlled devices.
- USB charge-only port (10 W) for auxiliary devices at the conference table.
- Each input provides an independent USB-to-Ethernet bridge, giving the connected computer a 1G Ethernet connection.
- Three LAN ports allow dedicated Dante, corporate, and A/V networks.
- Ethernet control with HTTP and HTTPS, and 802.1X authentication.

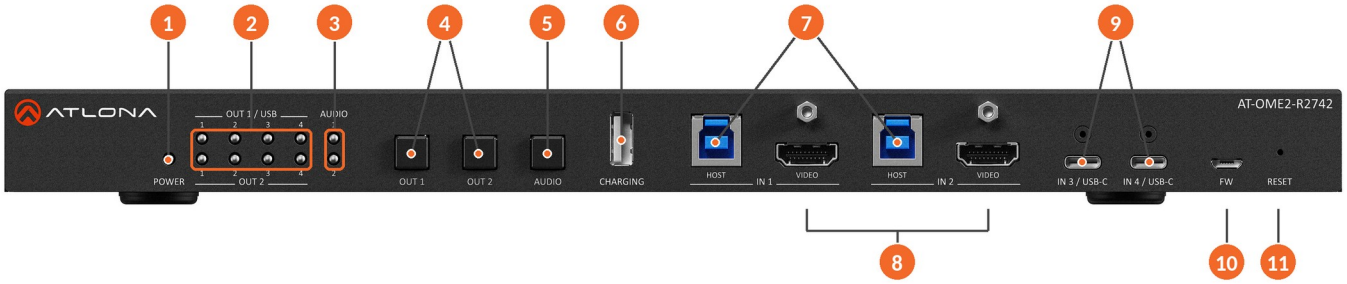
Package Contents

- 1 x AT-OME2-R2742 switcher
- 1 x DC 20V/10A power adapter
- 1 x AC power cord with US pins
- 2 x USB 3.2 Type-C to Type-C cable (2 m)
- 2 x USB 3.0 Type-A to Type-B cable (1.8 m)
- 1 x 3.5 mm 3-pin Phoenix male connector (SENSOR)
- 2 x 3.5 mm 3-pin Phoenix male connector, double layer (RS-232 1 & 2, RELAY 1 & 2)
- 1 x 3.5 mm 5-pin Phoenix male connector (AUDIO OUT)
- 1 x 3.5 mm 6-pin Phoenix male connector (TRIGGER)
- 4 x Mounting brackets (with screws)

NOTE: If any items are missing or damaged, contact Hall Research Technical Support at hallresearch.com.

Panel Description

Front Panel

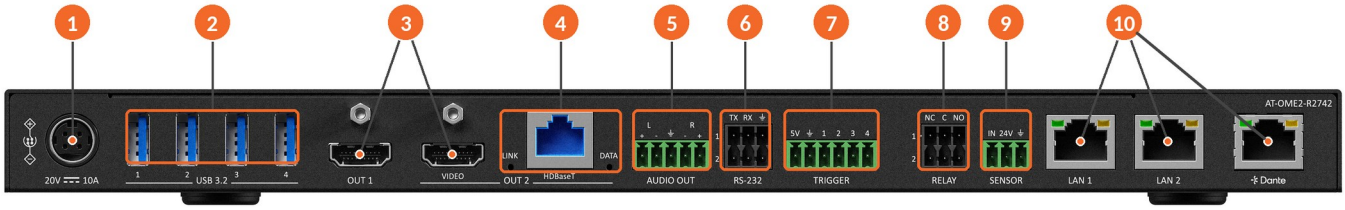


AT-OME2-R2742 — Front Panel

#	Name	Description
1	POWER LED	On: The device is powered on. Off: The device is powered off.
2	OUT 1 / USB and OUT 2 LEDs (1–4)	Top row: OUT 1 / USB. Bottom row: OUT 2. Numbers 1–4 correspond to inputs IN 1–IN 4. • Red: The USB host is routed independently to this input. • Green: The corresponding video input is selected, or the video input and its USB host are selected. • Off: The corresponding input is not selected.
3	AUDIO LEDs (1–2)	On: De-embedded audio from OUT 1 or OUT 2 is being processed. Off: Audio from the USB host or Dante input is being processed.
4	OUT 1 / OUT 2 buttons	Press to select the input source for OUT 1 or OUT 2.
5	AUDIO button	Press to switch the AUDIO OUT source between the de-embedded audio from OUT 1 and OUT 2.
6	CHARGING	USB 2.0 Type-A port for 5V/2A USB charging.
7	HOST (IN 1 & IN 2)	USB 3.2 Type-B ports. Connect to USB host devices (computers). • HOST on IN 1 and HOST on IN 2 are bound with the VIDEO (HDMI) ports of IN 1 and IN 2, respectively. • Both ports support an Ethernet bridge: a computer connected to them can access the network connected to the LAN ports.
8	VIDEO (IN 1 & IN 2)	HDMI inputs. Connect to HDMI sources.
9	IN 3 / IN 4 USB-C	USB 3.2 Type-C inputs. Connect to USB-C sources. Both full-featured ports support: • Audio, video, and USB data up to 10 Gbps. IN 3 and IN 4 support DP SST (one 4K video output); IN 4 also supports DP MST (two 4K video outputs). • USB Power Delivery 3.0, supplying up to 100 W to the connected device. • 1G network connection: a computer connected to these ports can access the network connected to the switcher. Recommended cable: USB Type-C to Type-C, USB 3.2 Gen 1x1 or above.
10	FW	Micro-USB port for ARM firmware update.

#	Name	Description
11	RESET	Use a pointed tool such as a pin. • Press and hold for about 5 seconds: resets the IP settings (IP mode to DHCP) and the login password to the default (“password”). • Press and hold for about 15 seconds: resets the device to factory defaults.

Rear Panel



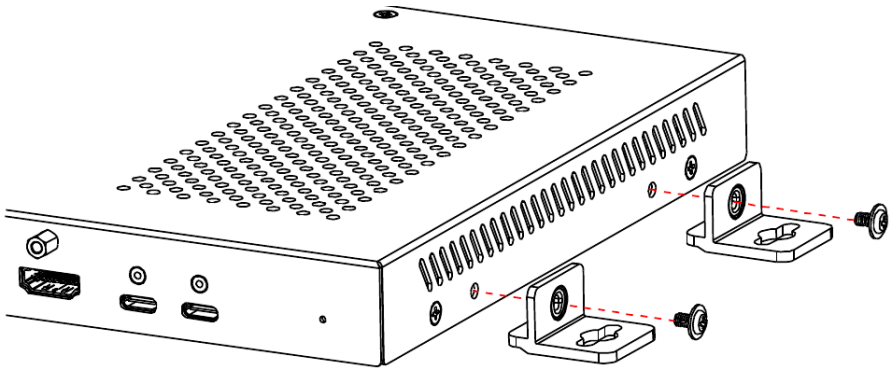
AT-OME2-R2742 — Rear Panel

#	Name	Description
1	20V ⍰ 10A	Connect to the power adapter provided.
2	USB 3.2 (1–4)	USB 3.2 Type-A ports, 5V/1.5A output per port. Connect to USB devices such as cameras and speakerphones.
3	OUT 1 / OUT 2 VIDEO	HDMI outputs. Connect to HDMI displays. OUT 2 VIDEO is mirrored with the OUT 2 HDBaseT port.
4	OUT 2 HDBaseT	HDBaseT 3.0 output. Connect to a compatible Omega 2 HDBaseT 3.0 receiver (such as the AT-OME2-D2311). The LINK and DATA LEDs beside the port show the HDBaseT link and data status.
5	AUDIO OUT	5-pin balanced audio output (L+, L–, ground, R–, R+). Connect to an amplifier or other audio receiver.
6	RS-232 (1 & 2)	Double-layer 3-pin terminal (TX, RX, ground); row 1 is RS-232 1 and row 2 is RS-232 2. • RS-232 1: Connect to an RS-232 control device for API control, or to a third-party device for RS-232 routing. • RS-232 2: Connect to a third-party RS-232 device for RS-232 routing.
7	TRIGGER	6-pin GPIO terminal (5V, ground, 1–4). Connect to GPIO devices; each of the 4 pins can be configured as an input or an output in the Web UI (GPIO page). Not currently used for any automated feature.
8	RELAY (1 & 2)	Double-layer 3-pin terminal (NC, C, NO); row 1 is RELAY 1 and row 2 is RELAY 2. Connect to devices for relay control.
9	SENSOR	3-pin terminal (IN, 24V, ground). Connect to an occupancy sensor. The 24V sensor power can be turned on or off in the Web UI.
10	LAN 1 / LAN 2 / Dante	RJ-45 ports. Connect to a network device (e.g., network switch, router, or computer) for LAN control (Web UI and Telnet). • Dante: Connect to the Dante network for Dante audio. • The VLAN mode sets how the three ports share the network. Set it with API commands or in the Web UI. See VLAN Mode in the Web UI section.

Installation

WARNING: Before installation and wiring, disconnect power from the device. Connect and disconnect cables gently.

1. Attach a mounting bracket to one side of the enclosure using the screws provided, as shown.

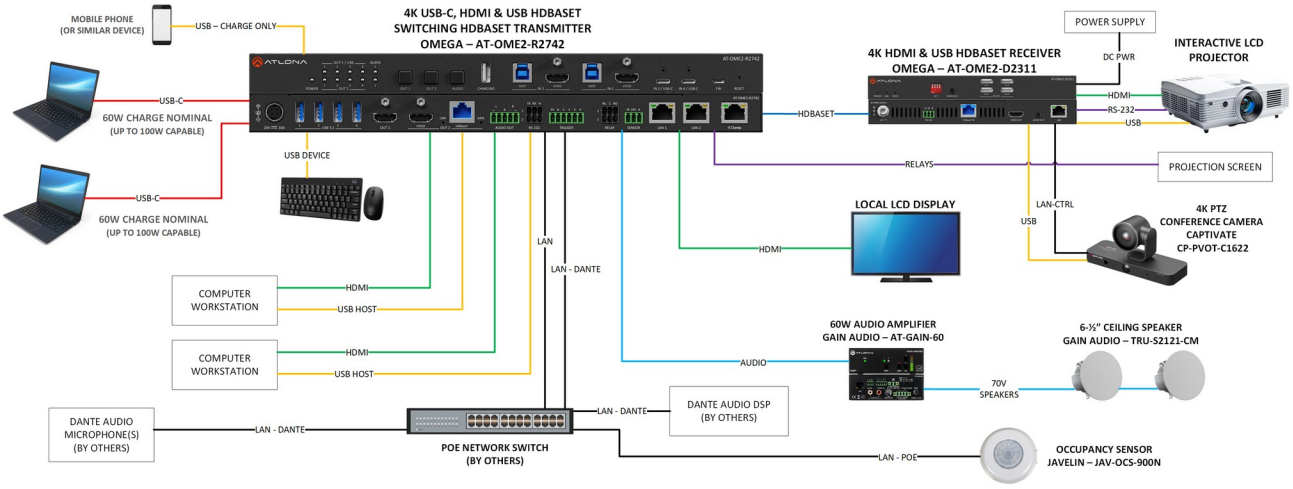


Attaching the mounting brackets

2. Repeat step 1 for the other side of the enclosure.
3. Attach the brackets to the mounting surface using screws (not included).

Wiring

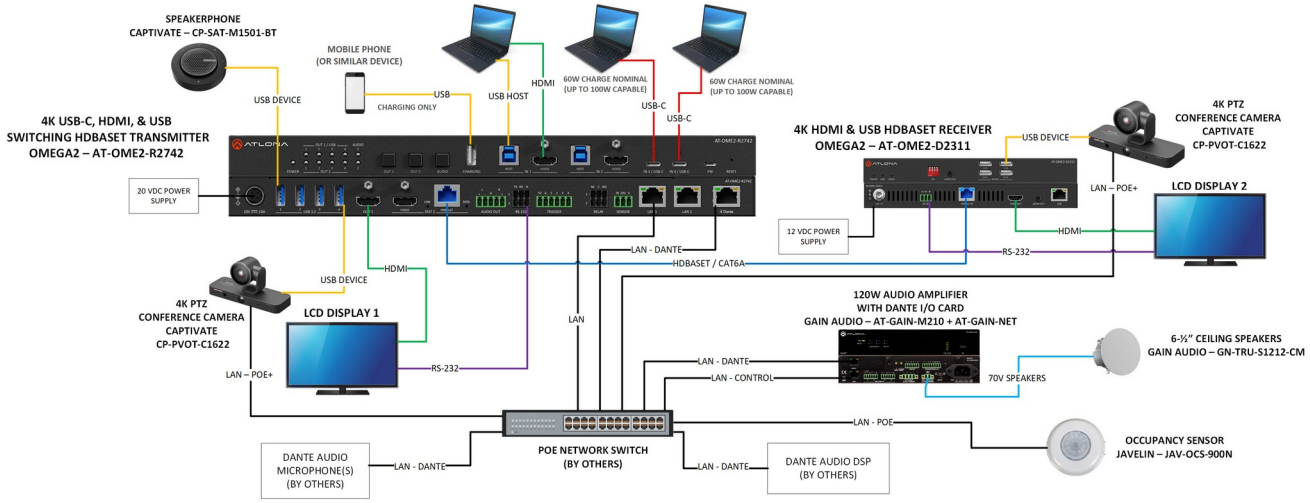
Dual-Screen Mode



AT-OME2-R2742 — application diagram, dual-screen mode

NOTE: In this mode, the source connected to USB-C IN 4 can send two 4K video signals, one to each HDMI output.

Matrix Mode



AT-OME2-R2742 — 4x2 matrix switcher, matrix mode

Auto Switching

The switcher supports automatic switching of HDMI and USB-C video and USB, with two modes:

- **LIFO mode** (last in, first out)
- **Priority mode**

Auto switching can be enabled or disabled in the Web UI or with API commands. See A/V Settings in the Web UI section, or refer to the AT-OME2-R2742 API Command Reference, available on the product page under Resources.

> **NOTE:** Video switching detects valid video signals; USB switching detects VBUS.

Button Control

The front-panel buttons provide basic input switching and audio source selection.

- **OUT 1 button:** Press repeatedly to cycle the input source for OUT 1. The LED of the selected source lights.

> **NOTE:** The default USB switching mode is Follow VIDEO OUT 1, so the OUT 1 button switches OUT 1 video and the USB devices at the same time.

- **OUT 2 button:** Press repeatedly to cycle the input source for OUT 2, including the OUT 2 VIDEO and OUT 2 HDBaseT outputs. The LED of the selected source lights.
- **AUDIO button:** Select whether AUDIO OUT carries the de-embedded audio from OUT 1 or OUT 2. The LED of the selected source lights.

RS-232 Operation

Two RS-232 ports are provided for device control or for control of third-party devices. Supported functions:

- **RS-232 1:**
  - Device control (API)
  - Control of a third-party device
  - TCP Proxy (TCP-to-RS-232 routing)
- **RS-232 2:**
  - Control of a third-party device
  - TCP Proxy (TCP-to-RS-232 routing)

Device Control

To control the switcher with API commands, connect an RS-232 device (such as a PC or control system) to the RS-232 1 port, or connect over IP with Telnet (see Telnet under LAN Control). For the command set, refer to the AT-OME2-R2742 API Command Reference, available on the product page under Resources. Serial terminal software may be needed on the PC.

Before sending API commands, make sure the serial port settings of the switcher and the controlling device match:

Parameter	Default Value
Baud Rate	115200 bps
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

Control of a Third-Party Device

The switcher can automatically control a third-party device, such as turning a projector on or off, using IP, CEC, or RS-232 commands stored in the switcher. When a trigger condition is met, the stored command is sent to the third-party device. The following commands can be stored:

- Display ON / OFF
- Volume MUTE / UNMUTE
- Volume UP / DOWN

Set these commands with API commands or in the Web UI. By default, automatic display control is on and set to CEC. The display is turned on or off automatically under these conditions:

- **Display ON:** When any active source is routed to the configured output.
- **Display OFF:** When no valid source is routed to the configured output.

TCP Proxy

TCP Proxy provides a tunnel from the network to an RS-232 port (TCP-to-RS-232 routing), passing network control commands through to the RS-232 port. This lets a third-party control system on the network control devices connected to the switcher. TCP port numbers:

RS-232 Port	TCP Port
RS-232 1	9001
RS-232 2	9002
RS-232 over HDBaseT	9003

LAN Control

Obtaining the IP Address

The default IP mode is DHCP. The IP address can be obtained in any of the following ways:

- Send the API command GET IPADDR<CR><LF> through the RS-232 1 port. Example:

Direction	Text
Input	GET IPADDR<CR><LF>
Response	IPADDR dhcp ip4addr 172.16.18.173 netmask 255.255.255.0 gateway 172.16.18.1

- Check the IP address assigned by the DHCP server.
- Use an IP scanner on the same network to find the switcher by its MAC address.

Telnet

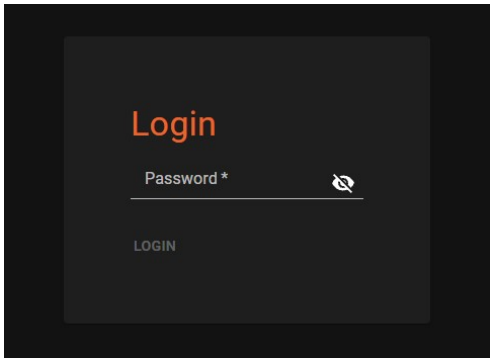
The switcher can be controlled over Telnet on port 23. Connect to the switcher's IP address on port 23 with a Telnet client and send API commands. For the command set, refer to the AT-OME2-R2742 API Command Reference, available on the product page under Resources.

Logging in to the Web UI

The built-in Web UI provides basic control and configuration. It can be accessed with the latest version of a modern browser, such as Chrome, Safari, Firefox, or Edge.

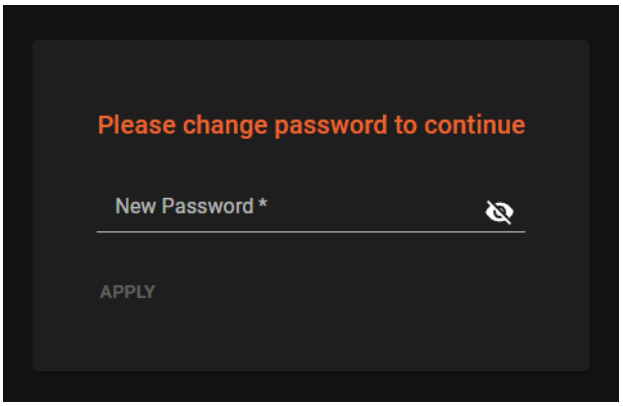
The default VLAN mode is Separated. In Separated mode, the switcher gets an IP address only through the LAN 1 port. In Transparent mode, it can get an IP address through any of the three RJ-45 ports.

1. Connect one of the LAN ports of the switcher (LAN 1 when the VLAN mode is Separated) to a local area network with a DHCP server, so that the switcher can obtain a valid IP address.
2. Connect the PC to the same network.
3. Enter the IP address of the switcher in the browser and press Enter. See Obtaining the IP Address.
4. Enter the default password, “password”, and click Login.



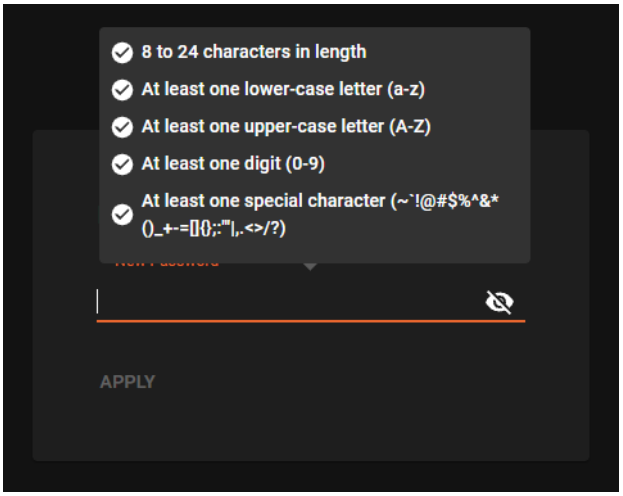
Web UI — Login

5. On first login, the switcher requires you to set a new password. Enter a new password in the New Password box and click APPLY to open the main page.



Web UI — First login, change password

As you type, the password requirements are shown. A check mark appears next to each requirement that is met. The password must be 8 to 24 characters and include at least one lower-case letter (a-z), one upper-case letter (A-Z), one digit (0-9), and one special character, such as ! @ # $ or %.



Web UI — Password requirements

Resetting the Password and IP Mode

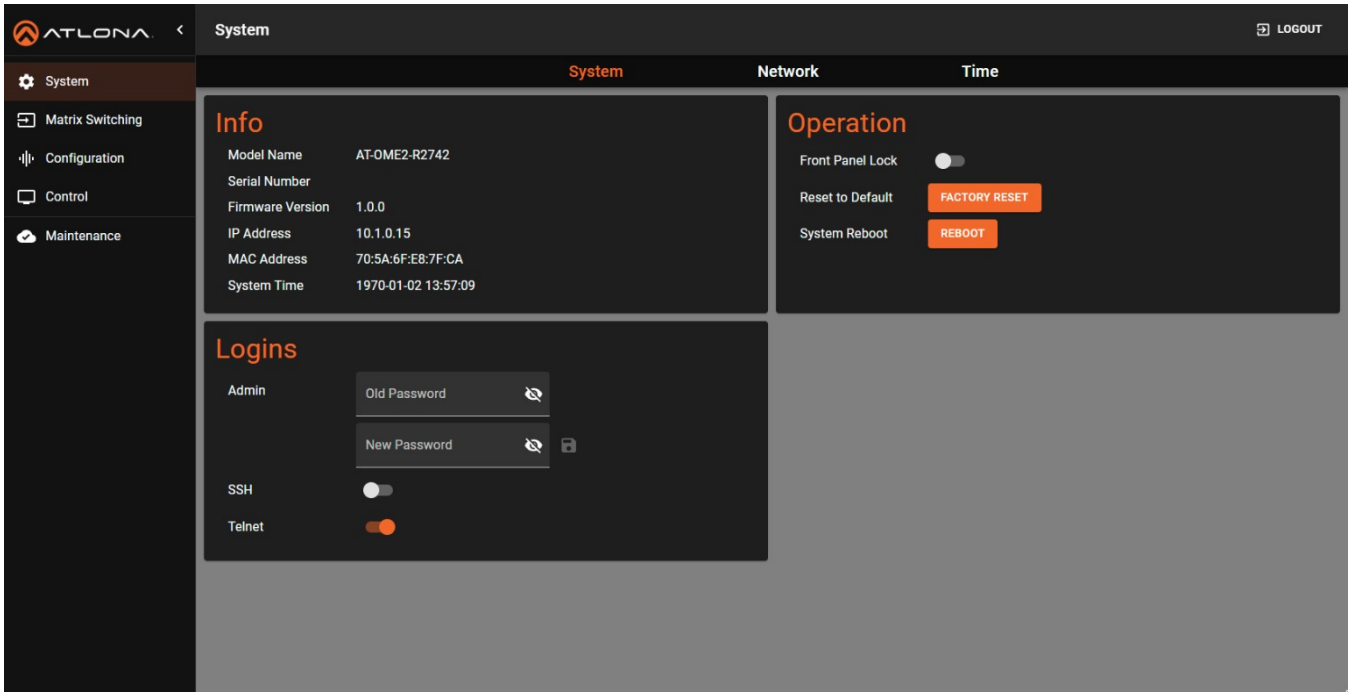
If the login password is forgotten, restore the default password in one of the following ways:

- Press and hold the RESET button on the front panel for about 5 seconds to reset the IP mode to DHCP and the login password to the default (“password”).
- Press and hold the RESET button for about 15 seconds to reset the switcher to factory defaults, including the password.
- Send the API command RESET<CR><LF> to reset the switcher to factory defaults, including the password.

Web UI

NOTE: Screens may vary slightly depending on the firmware version.

The Web UI has five pages, selected from the menu on the left: System, Matrix Switching, Configuration, Control, and Maintenance. Some pages have tabs across the top. The System page opens after login. Click LOGOUT at the top right to log out.

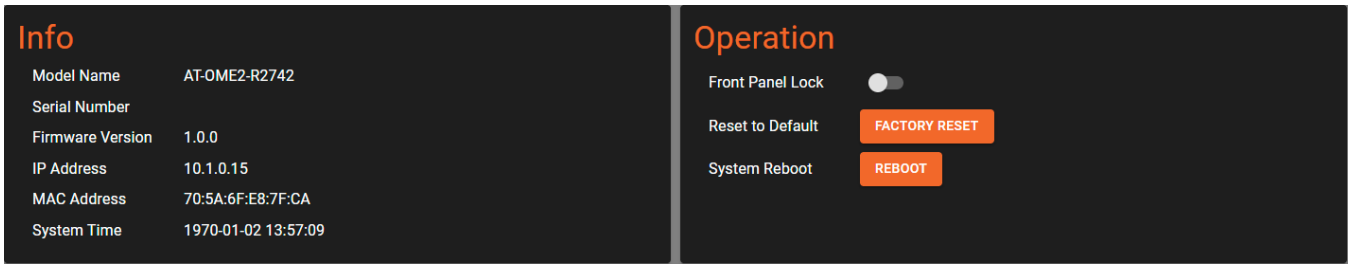


Web UI — Main page

System

The System page has three tabs: System, Network, and Time.

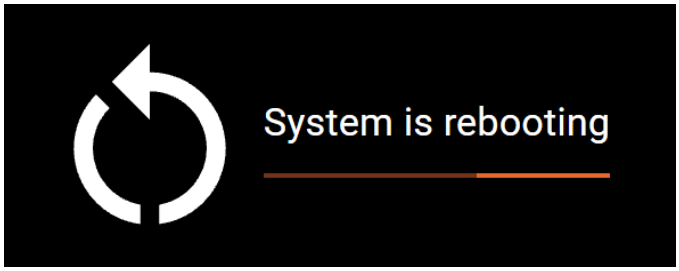
System



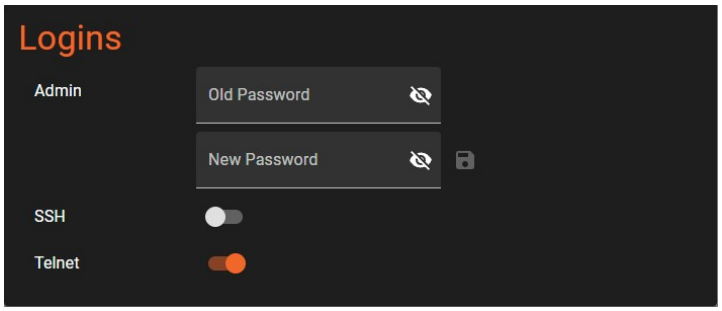
System — Info and Operation

- **Info:** Shows the model name, serial number, firmware version, IP address, MAC address, and system time.
- **Front Panel Lock:** Lock or unlock the front-panel buttons.
- **Reset to Default:** Click FACTORY RESET to reset the switcher to factory defaults.
- **System Reboot:** Click REBOOT to restart the switcher.

After you click FACTORY RESET or REBOOT, the System is rebooting screen appears while the switcher restarts. When the restart is complete, log in to the Web UI again. After a factory reset, log in with the default password and set a new password.



System — System is rebooting

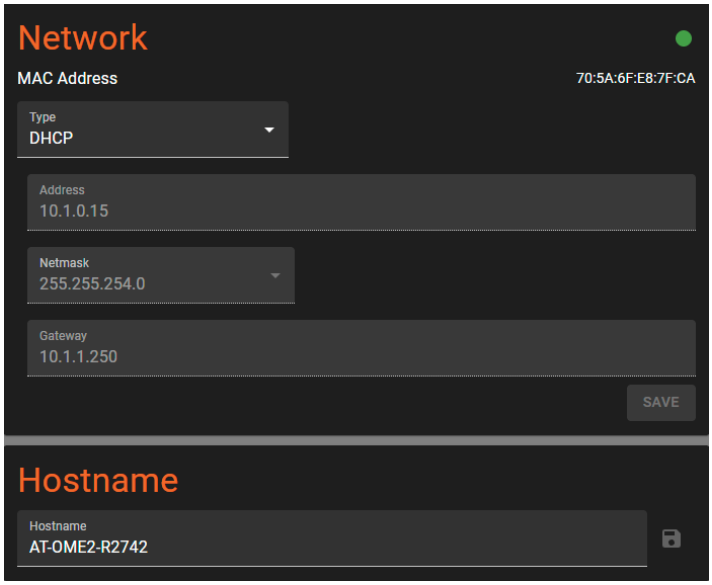


System — Logins

- **Admin:** To change the login password, enter the old password and the new password, and then click the save icon.
- **SSH:** Enable or disable SSH access. Default: disabled.
- **Telnet:** Enable or disable Telnet access. Default: enabled.

> **NOTE:** The password must be 8 to 24 characters and include at least one lower-case letter (a-z), one upper-case letter (A-Z), one digit (0-9), and one special character, such as ! @ # $ or %.

Network

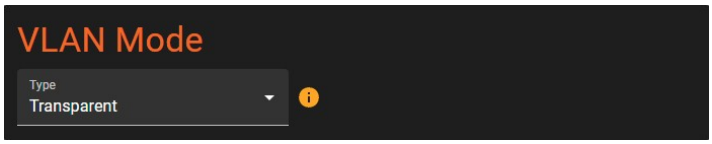


Network — IP settings and Hostname

- **Type:** Select the IP mode (DHCP or Static). Default: DHCP.
- **Address, Netmask, Gateway:** When Static is selected, enter the IP address, netmask, and gateway, and click SAVE.
- **Hostname:** Enter the host name of the switcher and click the save icon.

> **NOTE:** When Static is selected, make sure the PC is on the same network segment as the switcher. After a network setting is changed, allow 2–3 minutes for the LAN module to restart and reconnect.

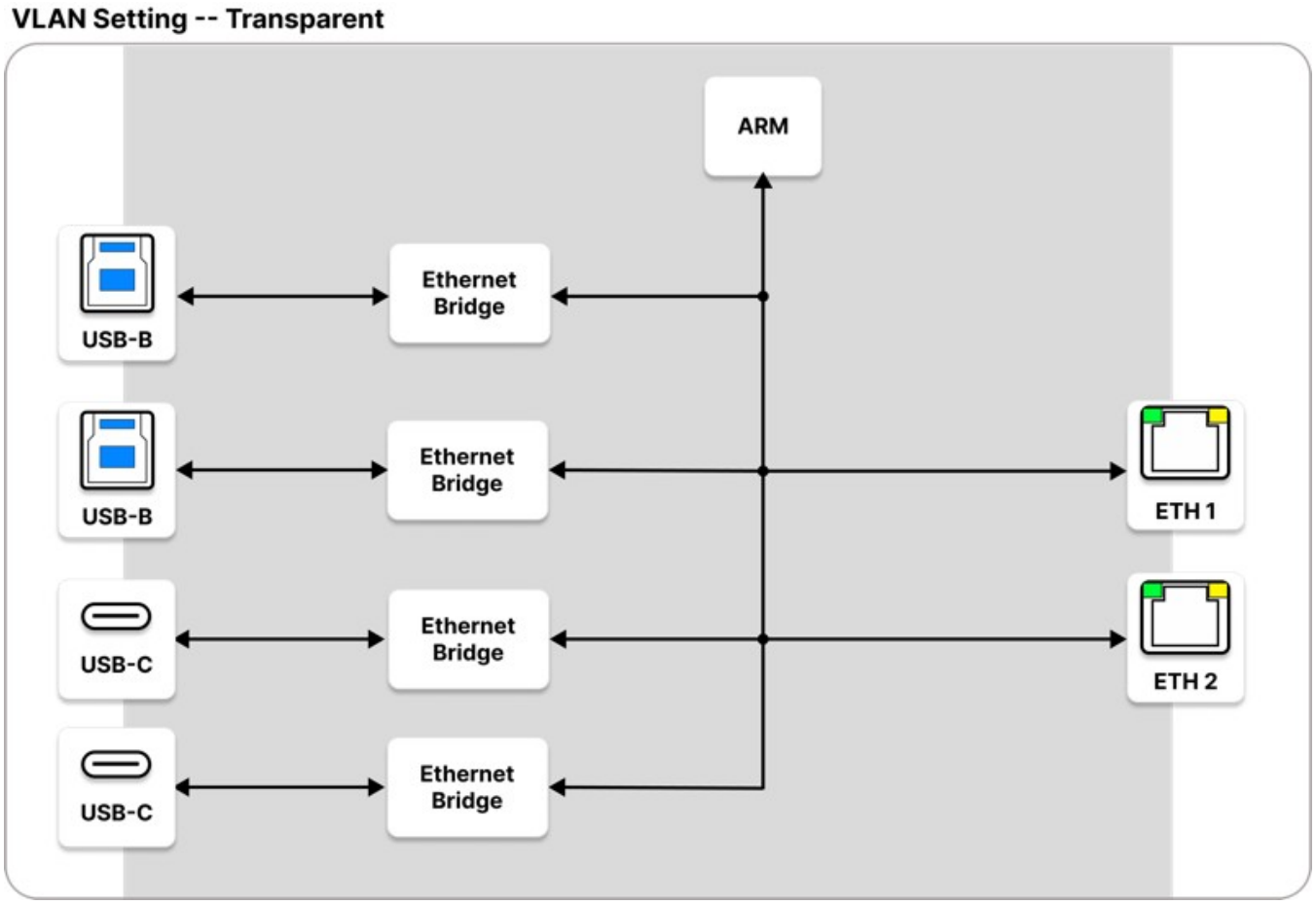
VLAN Mode



Network — VLAN Mode

VLAN settings separate the networks on the three RJ-45 ports (LAN 1, LAN 2, and Dante). Select the VLAN mode from the Type drop-down menu. Point to the information icon for a description of each mode.

- **Transparent:** Flattens the network so that all three RJ-45 ports communicate as if they were on the same network.

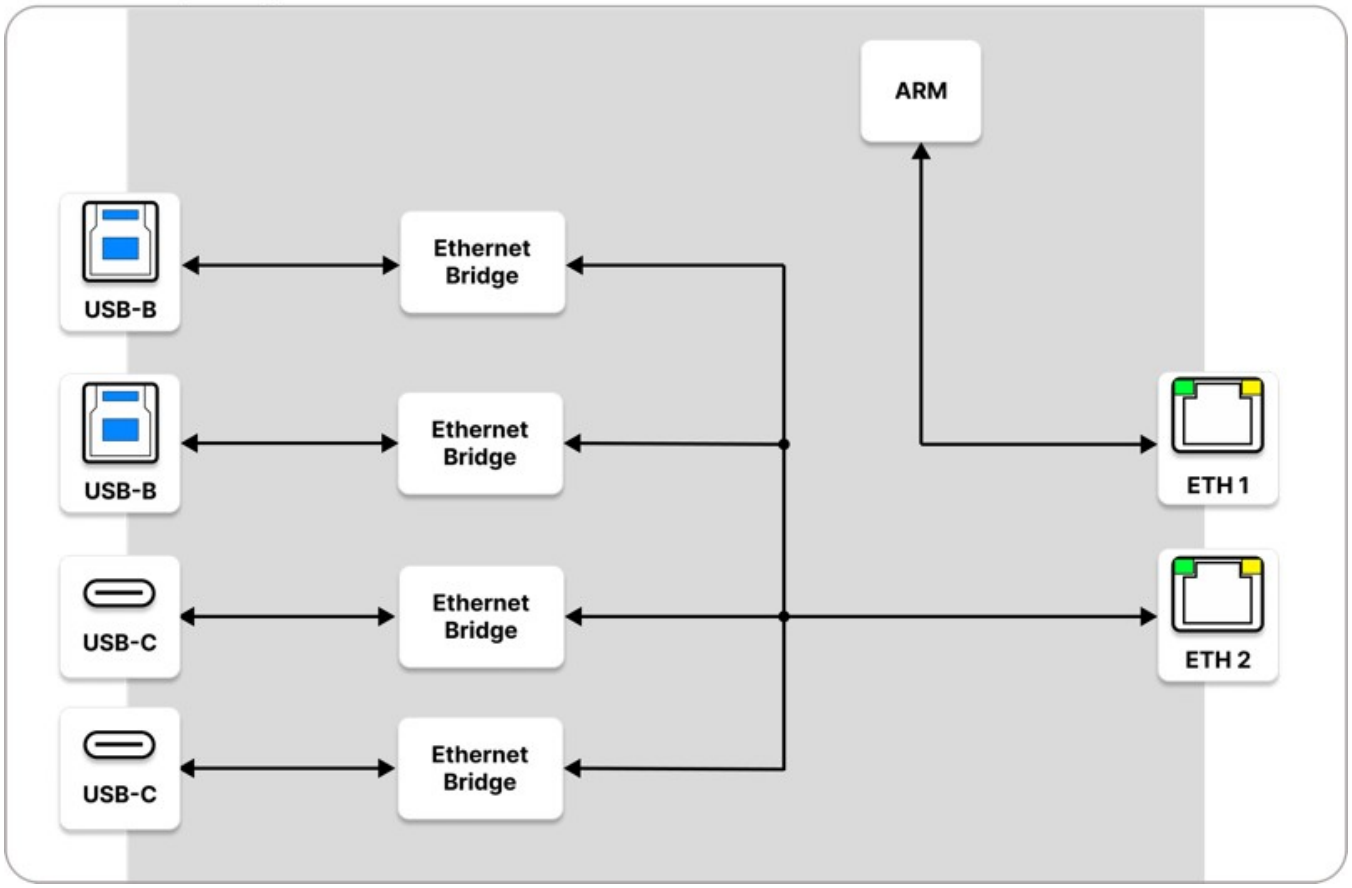


VLAN — Transparent mode

- **Separated:** Separates the three RJ-45 ports into individual VLAN segments:
  - **LAN 1:** A/V management; used to access the IP address of the switcher.

- **LAN 2:** Secure network, passed through to the USB hosts.
- **Dante:** Sends and receives Dante audio.

VLAN Setting -- Separated



VLAN — Separated mode

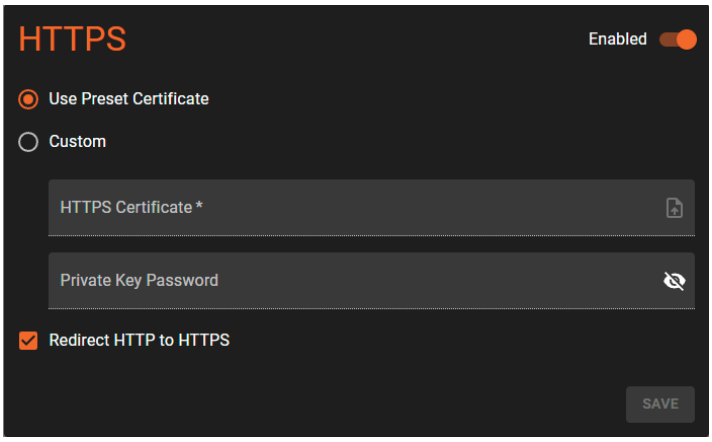
USB NIC



Network — USB NIC

USB NIC refers to the USB network cards on the two USB-B host ports (USB-B IN 1 and USB-B IN 2) and the two USB-C inputs (USB-C IN 3 and USB-C IN 4). Enable or disable the USB network for each port. When it is disabled, the host PC does not detect the USB network device.

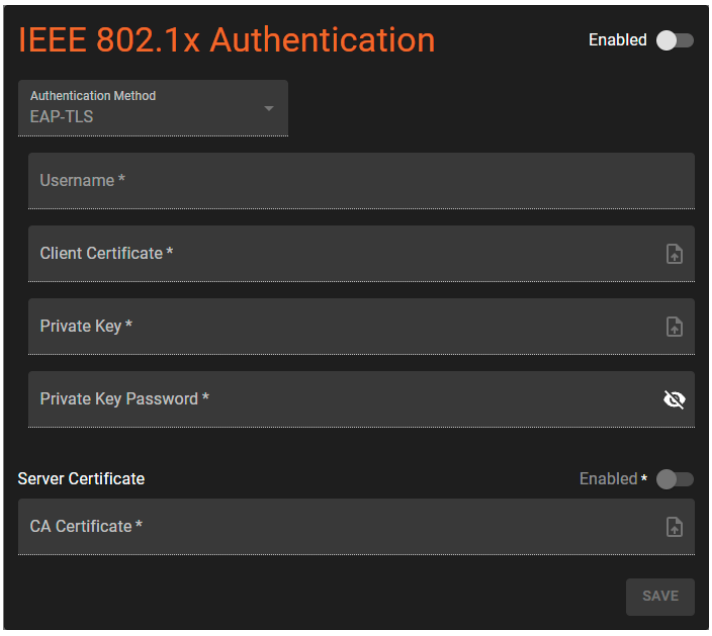
HTTPS



Network — HTTPS

- **Enabled:** Enable or disable HTTPS connections.
- **Use Preset Certificate / Custom:** Use the built-in certificate, or select Custom to upload an HTTPS certificate and enter its private key password (optional).
- **Redirect HTTP to HTTPS:** When selected, HTTP connections are redirected to HTTPS.
- **SAVE:** Click to apply the HTTPS settings.

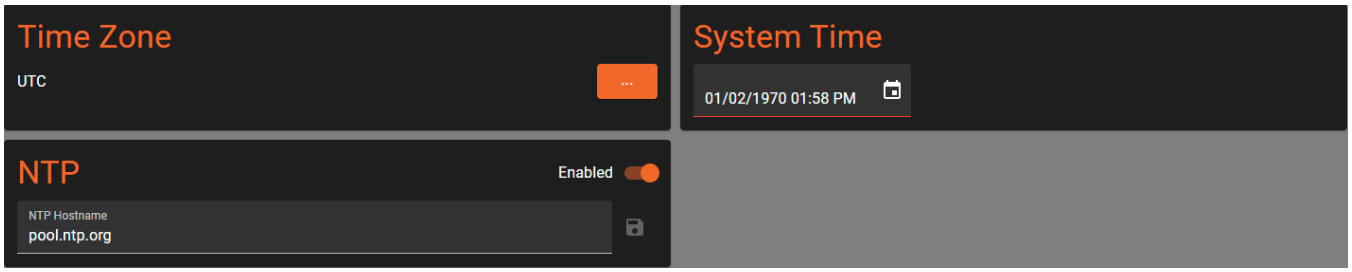
IEEE 802.1x Authentication



Network — IEEE 802.1x Authentication

- **Enabled:** Enable or disable 802.1X authentication.
- **Authentication Method:** Select EAP-TLS or EAP-MSCHAP V2.
- **Credentials:** Enter the username, and upload the client certificate and private key and enter the private key password, as required by the selected method.
- **Server Certificate:** When enabled, upload the CA certificate.
- **SAVE:** Click to apply the 802.1X settings.

Time



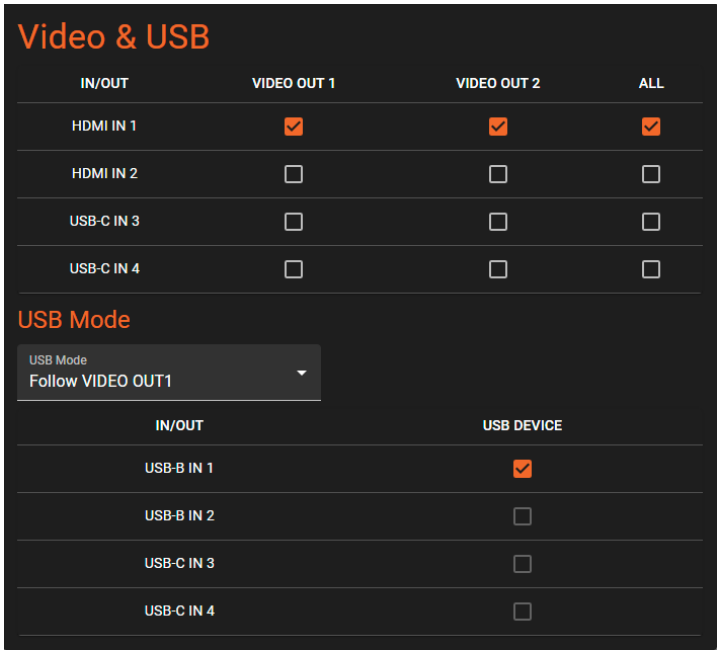
System — Time

- **Time Zone:** Shows the current time zone. Click the … button to select a time zone.
- **System Time:** Shows the date and time of the switcher. Click the calendar icon to set them.
- **NTP:** Enable or disable time synchronization with an NTP server. Enter the NTP host name and click the save icon.

Matrix Switching

The Matrix Switching page contains the video, USB, and audio routing and the USB-C MST setting.

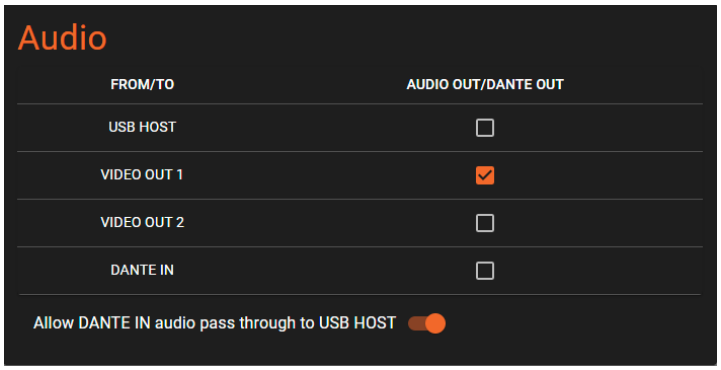
Video & USB



Matrix Switching — Video & USB

- **VIDEO OUT 1 / VIDEO OUT 2:** Select the check box of an input (HDMI IN 1, HDMI IN 2, USB-C IN 3, or USB-C IN 4) in the VIDEO OUT 1 or VIDEO OUT 2 column to route that input to the output.
- **ALL:** Select the check box to route one input to all video outputs and the USB-A devices.
- **USB Mode:** Select the switching mode for the USB device ports (Follow VIDEO OUT 1, Follow VIDEO OUT 2, or Independent). Default: Follow VIDEO OUT 1, where USB device switching follows VIDEO OUT 1.
- **USB DEVICE:** Shows the USB host (USB-B IN 1, USB-B IN 2, USB-C IN 3, or USB-C IN 4) connected to the USB-A device ports. When the USB mode is set to Independent, select the check box of the USB host to use.

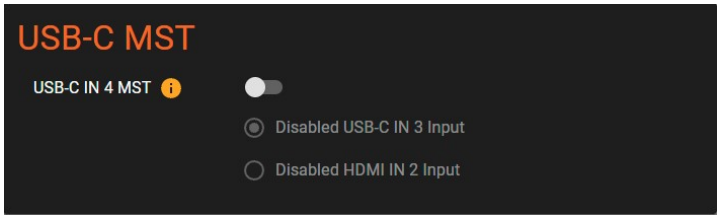
Audio



Matrix Switching — Audio

- **AUDIO OUT/DANTE OUT:** Select the audio source for AUDIO OUT and DANTE OUT: USB HOST, VIDEO OUT 1, VIDEO OUT 2, or DANTE IN.
- **Allow DANTE IN audio pass through to USB HOST:** Turn on to route the audio from DANTE IN to the USB host.

USB-C MST



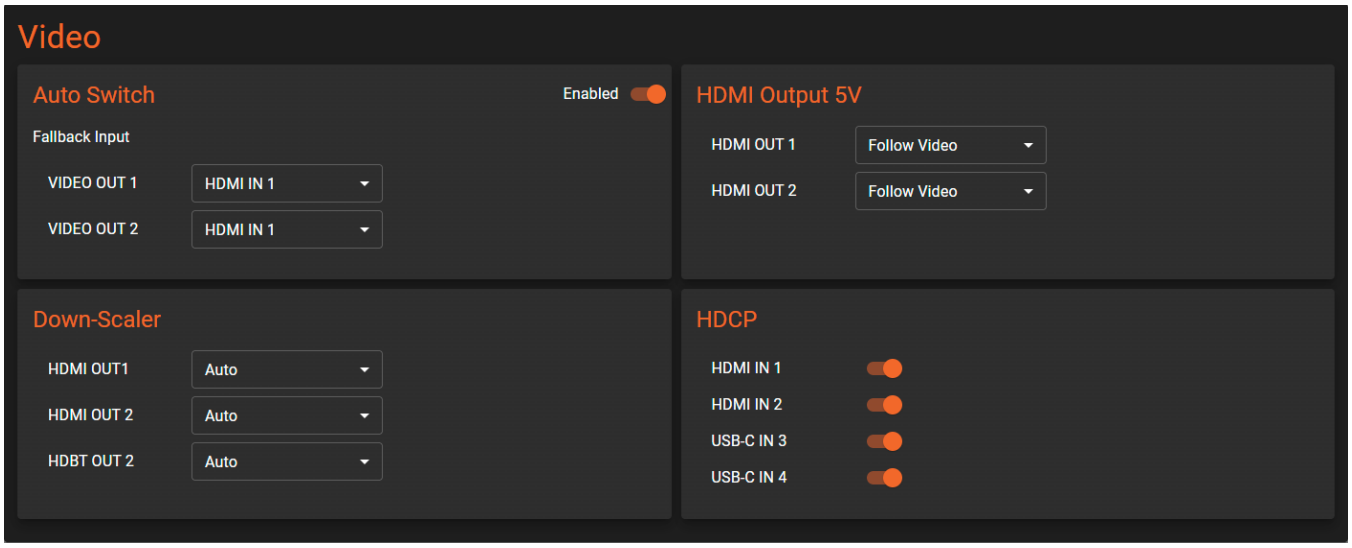
Matrix Switching — USB-C MST

- **USB-C IN 4 MST:** Turn the MST function of USB-C IN 4 on or off. Default: OFF. Only USB-C IN 4 supports MST. When MST is on, USB-C IN 4 occupies a second input channel; select which input it uses: Disabled USB-C IN 3 Input or Disabled HDMI IN 2 Input.

Configuration

The Configuration page has three tabs: A/V Settings, EDID, and USB.

A/V Settings



Configuration — A/V Settings, Video

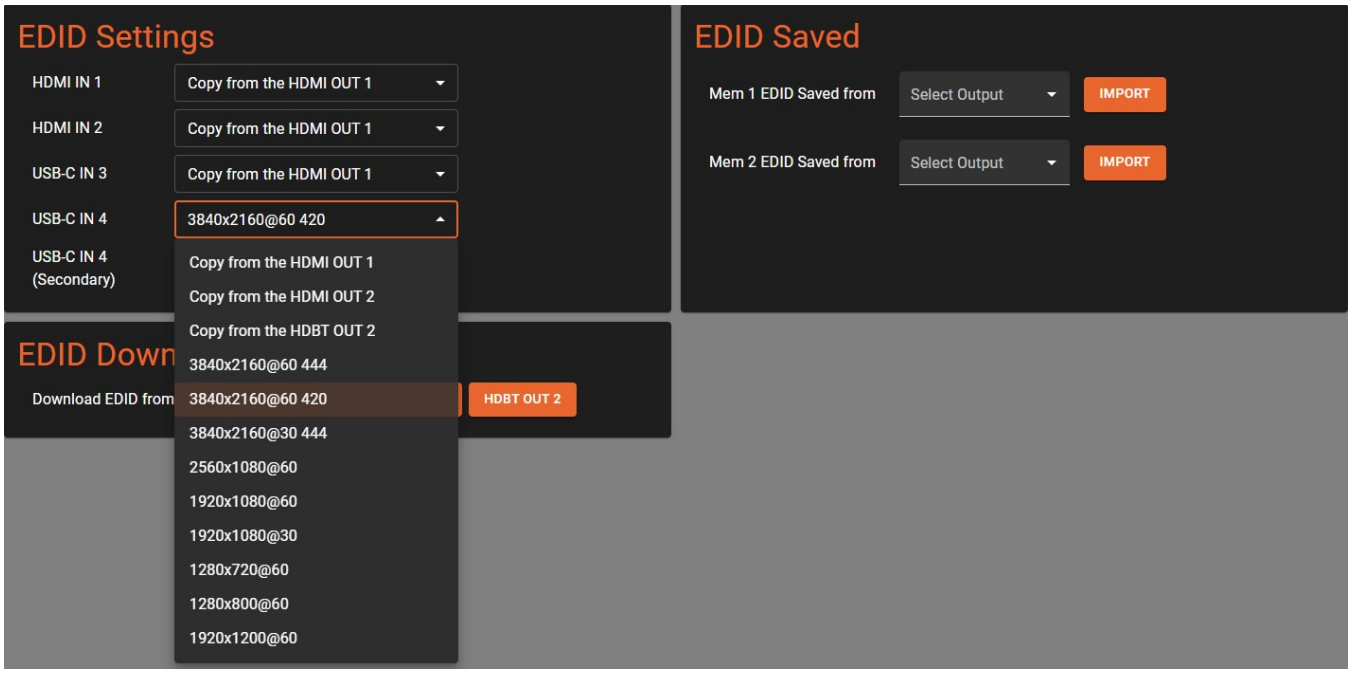
- **Auto Switch:** Turn automatic switching on or off. Default: ON. Under Fallback Input, select the fallback input for VIDEO OUT 1 and VIDEO OUT 2.
- **HDMI Output 5V:** Set the 5V output of HDMI OUT 1 and HDMI OUT 2. Default: Follow Video.
- **Down-Scaler:** Select the down-scaler mode for HDMI OUT 1, HDMI OUT 2, and HDBT OUT 2.
  - **Auto (default):** Automatically converts 4K to 1080p when a 1080p display is connected.
  - **Forced 1080P:** Always converts a 4K input to 1080p, regardless of the display capabilities.
  - **OFF:** Disables the down-scaler.
- **HDCP:** Enable or disable HDCP support for each input.



Configuration — A/V Settings, Audio Mute

- **Audio Mute:** Mute or unmute each audio output (HDMI OUT 1, HDMI OUT 2, HDBT OUT 1, DANTE OUT, and De-embed).
- **ALL:** Click MUTE or UNMUTE to mute or unmute all audio outputs.

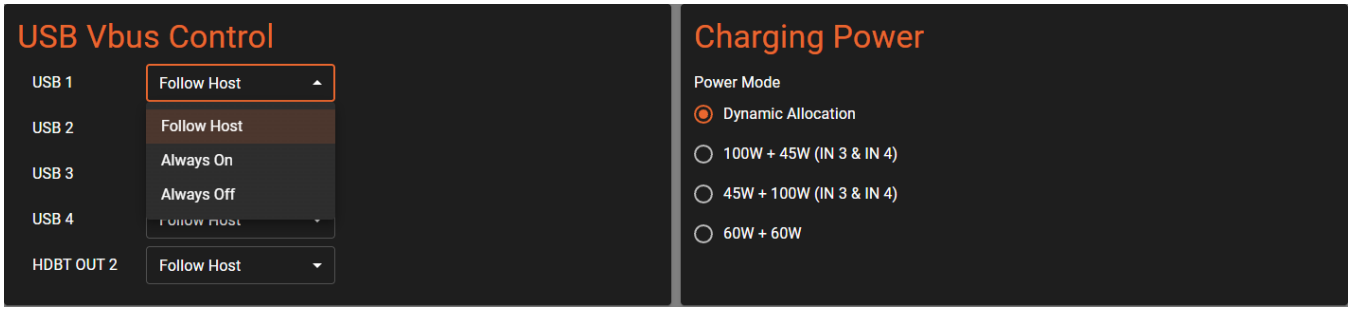
EDID



Configuration — EDID, EDID options

- **EDID Settings:** Select the EDID for each input from the drop-down menu. Default: Copy from the HDMI OUT 1. The options include:
  - **Copy from an output:** Copy from the HDMI OUT 1, Copy from the HDMI OUT 2, or Copy from the HDBT OUT 2 uses the EDID of the display connected to that output.
  - **Fixed EDID:** 3840x2160@60 444, 3840x2160@60 420, 3840x2160@30 444, 2560x1080@60, 1920x1080@60, 1920x1080@30, 1280x720@60, 1280x800@60, and 1920x1200@60.
  - **USB-C IN 4 (Secondary):** Sets the EDID of the second MST input. Available when USB-C IN 4 MST is on.
- **EDID Saved:** To store the EDID of a connected display, select the output for Mem 1 or Mem 2. The EDID is saved automatically and added to the EDID list of each input. To import an EDID file from the PC, click IMPORT and select the file. When the import succeeds, the EDID is added to the EDID list of each input.
- **EDID Download:** Click HDMI OUT 1, HDMI OUT 2, or HDBT OUT 2 to download the EDID of that output to the local PC.

USB



Configuration — USB, USB Vbus Control options

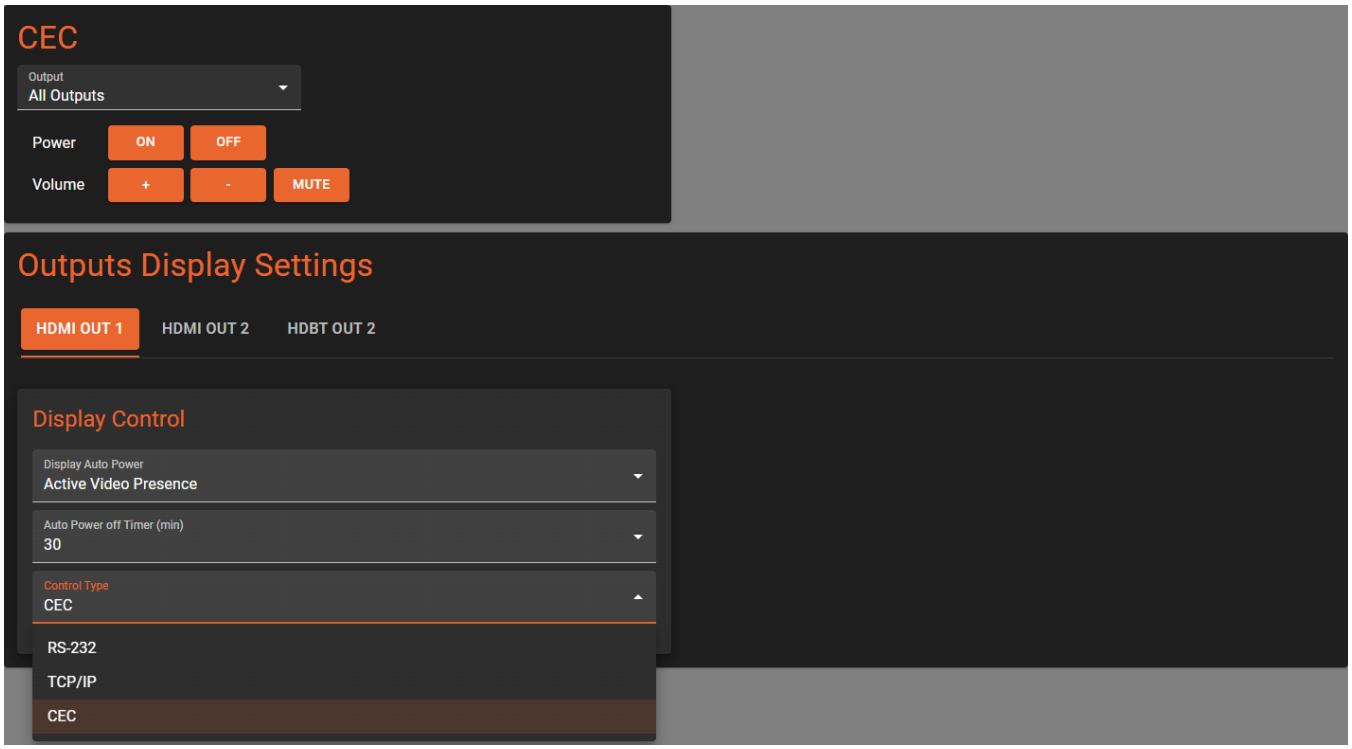
- **USB Vbus Control:** Select the VBUS mode for each USB device port (USB 1–4) and HDBT OUT 2: Follow Host, Always On, or Always Off. Default: Follow Host.

- **Charging Power:** Select how charging power is shared between USB-C IN 3 and USB-C IN 4:
  - **Dynamic Allocation:** The first USB-C computer connected receives 100 W. When a second USB-C computer is connected, each receives 60 W.
  - **100W + 45W:** USB-C IN 3 receives 100 W, and USB-C IN 4 receives 45 W.
  - **45W + 100W:** USB-C IN 3 receives 45 W, and USB-C IN 4 receives 100 W.
  - **60W + 60W:** USB-C IN 3 and USB-C IN 4 each receive 60 W.

Control

The Control page has four tabs: Display, RS232, I/O, and Relay.

Display

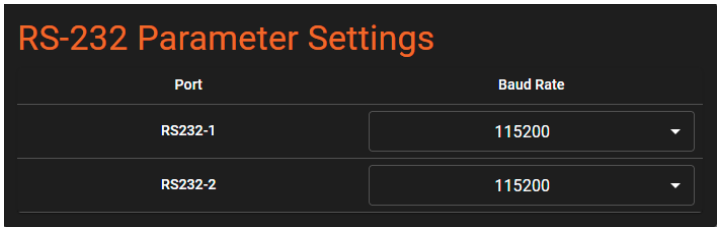


Control — Display, Control Type options

- **CEC:** Select the output to control from the Output drop-down menu (or All Outputs). Click ON or OFF to power the CEC-enabled display on or off, and +, -, or MUTE to control its volume. Use these buttons to test that CEC works with the display.
- **Outputs Display Settings:** Select the HDMI OUT 1, HDMI OUT 2, or HDBT OUT 2 tab to set display control for that output.
  - **Display Auto Power:** Select the condition for powering the display on and off automatically.
    - **Active Video Presence:** When an active video input is routed to the output, the switcher sends the power-on command. When there is no active video, the switcher starts the Auto Power off Timer and sends the power-off command when the timer expires.
    - **Active Video Presence w/ Occupancy Sensor:** Works like Active Video Presence, and also uses an occupancy sensor, so the displays are controlled by whether the room is occupied or vacant.

  - **Occupancy Sensor only:** The switcher monitors the connected occupancy sensor and turns the displays on or off when the room is occupied or vacant (see I/O), without requiring active video. The occupancy sensor may have its own internal timer before it changes state.
  - **Disabled:** Turns off display control for the selected output.
- **Auto Power off Timer (min):** Select the delay, in minutes, before the display is powered off.
- **Control Type:** Select how the switcher sends power commands to the display connected to the selected output:
  - **CEC:** The switcher sends CEC commands to the display over the HDMI or HDBaseT cable. No extra cable is needed. The CEC power-on and power-off commands can be changed with API commands. The default CEC power-on command is One Touch Play, which turns on the display and selects the correct input on the display.
  - **RS-232:** The switcher sends the stored RS-232 commands to the display through an RS-232 port. Connect the RS-232 port to the display, and store the display commands with API commands. See Control of a Third-Party Device.
  - **TCP/IP:** The switcher sends the display control commands to the display over the network. Connect the display to the same network as the switcher.

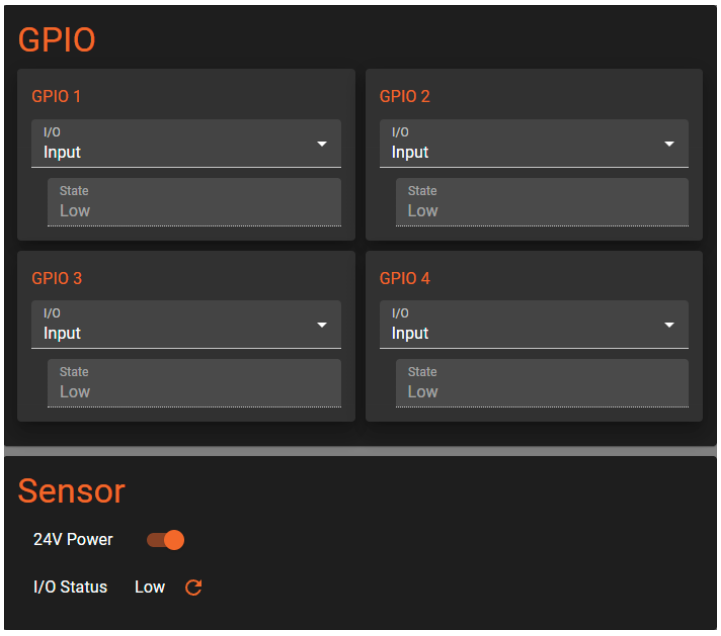
RS232



Control — RS232

- **Baud Rate:** Select the baud rate of RS232-1 and RS232-2. Default: 115200.

I/O



Control — I/O, GPIO and Sensor

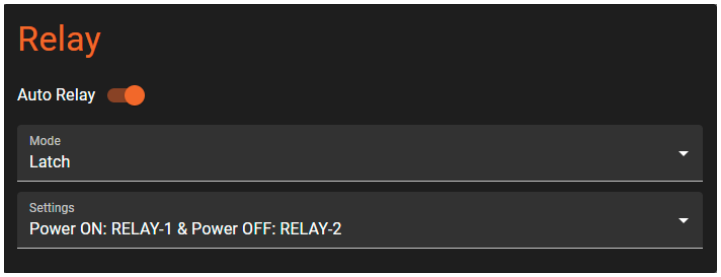
- **GPIO 1–4:** Set each GPIO pin of the TRIGGER port to Input or Output. State shows the current state (High or Low).
- **24V Power:** Enable or disable the 24V output of the SENSOR port.
- **I/O Status:** Shows the current I/O status of the SENSOR port. Click the refresh icon to update it.



Control — I/O, occupancy sensors

- **Trigger I/O OCS:** Turn the display on when the sensor connected to the SENSOR port detects occupancy, and off when it detects vacancy.
- **OCS-900:** Turn the display on or off based on occupancy and vacancy reported by IP occupancy sensors. Under Sensors, click ADD to add a sensor.

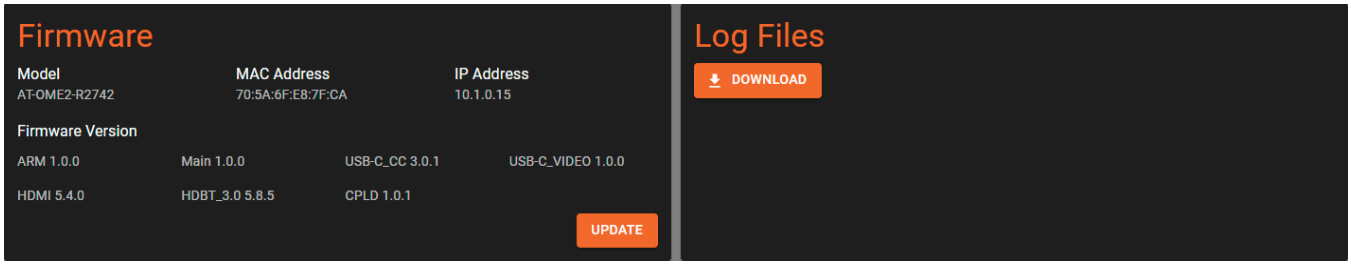
Relay



Control — Relay

- **Auto Relay:** Enable or disable automatic relay control.
- **Mode:** Select Latch (level mode) or Momentary (pulse mode). Default: Latch.
- **Settings:** Select the relays used for power on and power off, for example Power ON: RELAY-1 & Power OFF: RELAY-2.

Maintenance



Maintenance

- **Firmware:** Shows the model, MAC address, IP address, and the firmware version of each module.
- **UPDATE:** Click UPDATE and select the update file on the local PC to update the firmware. When the update is complete, refresh the web page and log in to the Web UI again.

CAUTION: Do not power off the switcher during the update.

- **Log Files:** Click DOWNLOAD to download the log file to the local PC.

Dante

The AT-OME2-R2742 supports 2x2 Dante audio transmission. Before using the Dante function:

1. Connect all Dante devices to the same network.
2. Use Dante Controller to route audio between the Dante devices. Dante Controller is available from Audinate: https://www.audinate.com/products/software/dante-controller

NOTE: Some network switches can prevent Dante Controller from discovering Dante devices. If the devices are not discovered, use a different network switch.

Specifications

Technical	
Input/Output Ports	2 x HDMI IN, 2 x USB-C IN, 2 x HDMI OUT (OUT 1, OUT 2 VIDEO), 1 x HDBaseT OUT (OUT 2, mirrored), 2 x USB HOST (Type-B), 4 x USB DEVICE (Type-A), 1 x USB CHARGING (Type-A), 1 x AUDIO OUT (5-pin Phoenix), 2 x RS-232 (double-layer 3-pin Phoenix), 1 x TRIGGER / GPIO (6-pin Phoenix), 2 x RELAY (double-layer 3-pin Phoenix), 1 x SENSOR (3-pin Phoenix), 2 x LAN (RJ-45), 1 x Dante (RJ-45), 1 x FW (Micro-USB), 1 x DC 20V
Video Signal	HDMI 2.0, up to 4K@60Hz 4:4:4 8-bit or 4K@60Hz 4:2:2 12-bit HDCP 2.2/1.4
USB HOST IN 1 & 2	USB 3.2 Gen 2x1, up to 10 Gbps
USB-C IN 3 & 4	USB 3.2 Gen 2x1 • Video: DP Alt Mode up to 4K@60Hz — IN 3: SST only; IN 4: MST dual output • USB data: up to 10 Gbps • Charging: up to 100 W
USB DEVICE	USB 3.2 Gen 2x1, up to 10 Gbps; 5V/1.5A output per port
Resolutions	VESA: 800 × 600, 1024 × 768, 1280 × 768, 1280 × 800, 1280 × 960, 1280 × 1024, 1360 × 768, 1366 × 768, 1440 × 900, 1600 × 900, 1600 × 1200, 1680 × 1050, 1920 × 1200, 2048 × 1152, 2560 × 1440, 3440 × 1440 @ 60 Hz CTA: 1280 × 720p @ 50, 60 Hz; 1920 × 1080p, 3840 × 2160, 4096 × 2160 @ 24, 25, 30, 48, 50, 60 Hz (23.98, 29.97, and 59.94 Hz included)
HDR	HDR10, HLG, HDR10+, and Dolby Vision
Audio Format	USB-C IN / HDMI IN / HDMI OUT: up to 7.1 ch, including PCM 2.0/5.1/7.1, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS 5.1, DTS-HD Master Audio, and DTS:X Audio de-embedding: stereo only Dante: stereo only
Ethernet	1000M/100M adaptive
Maximum Data Rate	USB-C IN: 10 Gbps (per lane) HDMI: 18 Gbps USB 3.2: 10 Gbps
Control Method	Front-panel buttons, RS-232, LAN (Telnet and Web UI)
General	
Operating Temperature	0 °C to 45 °C (32 °F to 113 °F)
Storage Temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Humidity	10% to 90%, non-condensing
ESD Protection	Human-body model: ±8 kV (air-gap discharge), ±4 kV (contact discharge)
Power Supply	DC 20V, 10A

Power Consumption (Max)	Without USB and charging: 13.1 W With USB and charging: 155.6 W
Dimensions (W x H x D)	325 mm x 25 mm x 180.2 mm (12.80 in x 0.98 in x 7.09 in), without mounting brackets
Weight	1.45 kg (3.20 lb)

Transmission Distance

- T568B straight-through category cable is recommended.
- Use F/FTP or U/FTP cable. Do not use UTP, F/UTP, or U/UTP cable.

Port	Cable Type	Range	Supported Video
HDBaseT 3.0	Cat 6A/7 (U/FTP, F/FTP, or S/FTP)	100 m (330 ft)	4K@60Hz (all) 4K@30Hz (all) 1080p@60Hz (all)
	Cat 5e/6	70 m (230 ft)	4K@60Hz 4:2:0 24bpp 4K@30Hz (all) 1080p@60Hz (all)
		40 m (131 ft)	4K@60Hz 4:4:4 24bpp 4K@60Hz 4:2:2 36bpp
USB-C	USB-C to USB-C	2 m (7 ft)	4K@60Hz (all) 4K@30Hz (all) 1080p@60Hz (all)
HDMI	HDMI cable	Input/Output: 10 m (33 ft)	4K@60Hz 4:2:0 24bpp 4K@30Hz (all) 1080p@60Hz (all)
		Input/Output: 5 m (16 ft)	4K@60Hz 4:4:4 24bpp 4K@60Hz 4:2:2 36bpp