





AT-PR05-MX810 Atlona Manuals Switchers



Version Information

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1	Jan 2025	Initial release



Sales, Marketing, and Customer Support

Main Office

Atlona Incorporated 70 Daggett Drive San Jose, CA 95134 United States

Office: +1.408.962.0515

Sales and Customer Service Hours Monday - Friday: 6:00 a.m. - 4:30 p.m. (PST)

https://atlona.com/

International Headquarters

Atlona International AG Tödistrasse 18 8002 Zürich Switzerland

Office: +41.43.508.4321

Sales and Customer Service Hours Monday - Friday: 09:00 - 17:00 (UTC +1)

Operating Notes

IMPORTANT: Visit https://www.atlona.com/product/AT-PRO5-MX810 for the latest firmware updates and User Manual.

Warranty







Safety and Certification



CAUTION: TO REDUCT THE RISK OF ELECTRIC SHOCK DO NOT OPEN ENCLOSURE OR EXPOSE TO RAIN OR MOISTURE. NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

The information bubble is intended to alert the user to helpful or optional operational instructions in the literature accompanying the product.

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this product near water.
- 6. Clean only with a dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

- 9. Do not defeat the safety purpose of a polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.
- 11. Only use attachments/accessories specified by Atlona.
- 12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
- 13. Unplug this product during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.



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FCC Compliance and Advisory Statement: 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. 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 in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed or 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 by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for help. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

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Introduction

The Atlona **AT-PRO5-MX810** is an 8x10 matrix switcher with eight HDMI[®] inputs, two HDMI outputs, and eight AV extension outputs with SDVoE[®] 10GbE connectivity for ultra-high definition video and audio delivery to an Atlona AT-PRO5-101-SC-RX or AT-PRO5-101-RX receiver. Part of the PRO5 Series, this matrix switcher is HDCP 2.3 compliant, and supports 4K/60 4:4:4 and HDR at HDMI data rates up to 18 Gbps. Each SDVoE extension output includes an RJ45 port, and an SFP+ cage for copper or fiber optic connectivity to transmit video, embedded audio, Gigabit Ethernet, and RS-232 and IR control signals to the receiver. The RJ45 port allows extension up to 330 feet (100 meters) over CAT6a UTP cable, along with PoE for powering the receiver, while the SFP+ cage can be used with a compatible fiber optic module to extend from 38 meters up to 10 kilometers over fiber optic cable. Video processing is available in the PRO5-101-SC-RX scaling receivers, including 4K video upscaling and downscaling with frame rate conversion, and video wall processing. This HDMI to SDVoE matrix switcher is equipped with a comprehensive host of audio and control system integration features, making it ideal for a wide range of commercial applications requiring multi-zone AV distribution with long-distance signal extension.

Features

- 8x10 HDMI matrix switcher with HDMI and SDVoE[®] extension outputs
- High-performance, SDVoE-based, point-to-point AV transmission
- Eight SDVoE extension outputs, each with copper or fiber optic connectivity⁽¹⁾
- 4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling, plus support for HDR formats.
- HDCP 2.3 compliant
- Power over Ethernet (PoE) for remotely powering AT-PRO5-101-SC-RX and AT-PRO5-101-RX receivers
- High-performance video processing available with AT-PRO5-101-SC-RX scaling receivers⁽²⁾
- Video wall processing available with AT-PRO5-101-SC-RX scaling receivers
- Flexible, independent audio matrix switcher
- Multi-channel audio compliant
- EDID management
- HDCP 2.3 management
- Provides HDMI signal regeneration for source devices
- Intuitive GUI-based configuration using integrated web server
- TCP/IP and RS-232 control
- TCP proxy streamlines control system integration
- Independent CEC display control to each output
- Comprehensive IR control management for sources and displays
- Easy to configure and manage with Velocity Device Manager
- Rack mountable 2U, full-rack width enclosure

Package Contents

- 1 x AT-PRO5-MX810
- 1 x 3-pin captive screw connector
- 8 x 5-pin captive screw connectors
- 1 x AC power cord
- 1 x Insert w/ QR code

(1) Signals can be transported over copper or fiber, but not both simultaneously.



Panel Description

Front Panel



1 PWR

LED will be red while the unit is booting and blue when operating normally. Refer to LED Indicators (page 12) for more information. 2 STATUS

LED will be blue when the unit is operating normally. Refer to LED Indicators (page 12) for more information.



Panel Description



1 Power Switch

Turns the AT-PRO5-MX810 on or off. Press the side of the switch labeled "I" to power-on the unit. Press the side of the switch labeled "O" to power-off the unit.

2 IEC Connector

Connect the included power cord from this power receptacle to an available grounded wall outlet.

3 Chassis Ground

Provides a common return path for electric current and a safety feature to prevent electric shock.

4 LAN

Connect an Ethernet cable from this port to the network.

5 RS-232

Connect the included 3-pin captive screw connector to this port.

6 INPUT

Connect an HDMI cable from each of these ports to a HD/UHD source.

7 IR

This bank of ports provide both IR inputs and outputs. Connect 3.5 mm jacks to these ports.

8 OUTPUT

Connect an HDMI cable from each of these ports to a display, such as a confidence monitor.

AUDIO OUT

Connect the included 5-pin captive screw connectors from these port to an amplifier.

10 RESET

9

Press this button to perform a factory-reset of the AT-PRO5-MX810.

11 EXT 1 - EXT 8

Connect these outputs to the AT-PRO5-101-SC-RX scaling receiver or AT-PRO5-101-RX receiver. RJ45 ports provide extension up to 330 feet (100 meters) over CAT6A/7 cable along with Power over Ethernet (PoE). SFP+ cage can be used with compatible fiber optic transceiver modules to extend from 38 meters up to 10 kilometers over fiber optic cable.



Installation

Connection Instructions

- 1. Connect an HDMI cable from each source to these INPUT ports.
- Connect an AT-PRO5-101-RX or AT-PRO5-101-SC-RX receiver to the EXT 1 EXT 8 ports. Note that the RJ45 and SFP+ ports cannot be used at the same time to extend AV sources.
 - RJ45 ports: connect CAT6a/7 cabling up to 330 feet (100 meters) to AT-PRO5-101-SC-RX scaling receivers or AT-PRO5-101-RX receivers.
 - SFP+ cage: connect compatible fiber optic transceiver modules to extend from 38 meters (125 feet) up to 10 kilometers (6.2 miles) over fiber optic cable. Refer to Table 1.1 for a listing of compatible transceivers.
- 3. Connect an HDMI cable from the **OUTPUT** ports to displays, such as a confidence monitors.
- 4. Connect an Ethernet cable from the **LAN** port to the Local Area Network (LAN). This step will be required in order to access the built-in web server.
- 5. Connect the included 3-pin captive screw connector from the RS-232 port to a control system.
- 6. Connect a 3.5 mm jack from the control system to the **IR IN** ports. Connect IR emitters, such as the AT-VCC-IR-EMT, from the **IR OUT** ports to controlled devices.
- 7. Connect the included 5-pin captive screw connectors from these AUDIO OUT ports to an amplifier.
- 8. Connect the chassis ground to a stable and reliable grounding point that safely conducts stray or fault currents away from the device.
- Connect the included AC power cord from the AC 100-240V 50/60 Hz power receptacle to an available AC electrical outlet.
- 10. Press the side of the switch labeled "I" to power-on the AT-PRO5-MX810.

Table 1.1 - Compatible transceivers

Manufacturer	Product
Atlona	AT-SFP-PLUS-10GE-SR
FS	FS SFP+ 10GB 850nm LC
Ubiquiti	UACC-OM-MM-10G-D-2
Proline	EW3D0000710-PRO
StarTech	455883B21ST





Installation

Connection Diagram





Device Operation

LED Indicators

The LED indicators on both the front and rear of the unit provide basic information on the current status of the AT-PRO5-MX810.

LED	State		Description
PWR	Solid blue	•	Matrix is powered and in normal operating mode.
	Solid red	•	The matrix is in <i>standby mode</i> .
			Note that when the AT-PRO5-MX810 is placed in <i>standby mode</i> , the PWR LED indicator will be red.
	Off	0	Matrix is not powered.
			 Check the power supply and make sure it is securely fastened to the captive screw connector on the rear of the unit.
			• Make sure that the power supply is connected to an available electrical outlet and that the outlet is "live" (some outlets are controlled by a wall switch).
STATUS	Solid red	•	The matrix is booting or is in the process of rebooting.
	Blinking blue	\star	The matrix is in the process of resetting to factory defaults.
	Blinking red	\star	The matrix is updating the firmware.



Device Operation

Logging in to the Web Server

Most of the AT-PRO5-MX810 operation is handled through the built-in web server. In order to access the web server, the IP address of the unit must be known.

Login Registration

Before the built-in web server can be accessed, a password must be created.

- 1. Launch the desired web browser and enter the IP address of the AT-PRO5-MX810 in the address bar.
- 2. The Login page will be displayed.



- 4. Click the **LOGIN** button.
- 5. The **Change Password** screen will be displayed.





6. Enter the desired password in the **Password** field. By default, the password will be masked. To toggle between password masking and unmasking, click the *icon*.



- 7. Click the **Apply** button to commit changes.
- 8. The **System** > **System** page will be displayed.

Logging in after Registration

- 1. Launch the desired web browser and enter the IP address of the AT-PRO5-MX810 in the address bar.
- 2. Enter the correct password in the provided field.
- 3. Click the **LOGIN** button.



4. The **System** > **System** page will be displayed.



System Settings

The AT-PRO5-MX810 provides easy access to system configuration through the built-in web server, and is the recommended method to adjust network settings.

Obtaining System Information

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click **System** in the top menu bar.
- 4. Locate the **Info** window group to obtain the IP address, MAC address, System Time, Temperature, and various other details about the AT-PRO5-MX810.





Device Operation

Changing the Administrator Password

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click **System** in the top menu bar.
- 4. Locate the **Logins** window group.

	System				E LOGOUT
🔅 System		System	Network	Time	
Matrix Switching Configuration Voleo Walt Control Control Maintenance	Info Model Name AT-PROS-MX810 Sorial Number 0950352724000700004 Filmmare Version 0.1.3.12 Samtech Version 0.2 IP Address 10.20.20.87 MCC Address B8.98.00.0E.F.96.05 System Time 2024.11.05.08.31.0 Temperature 49°C Fan Speed 1042.RPM		Operation System Standby Reset to Default System Roboot	ACTORY REBET. REBOOT	
	Logins Admin Password & • SSH/Talnet TCP Proxy				
		Admin SSH/Telnet TCP Proxy		Password	

5. Enter the new password in the Admin field. By default, the password will be masked. To toggle between password masking and unmasking, click the X icon.



6. Click the 🕞 icon to commit changes.



Enabling / Disabling SSH and Telnet Proxy

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click **System** in the top menu bar.
- 4. Locate the **Logins** window group.



5. Click the **SSH/Telnet** and/or **TCP Proxy** toggle switches to enable or disable each feature. When enabled, the toggle switches will be orange.



Enabling / Disabling System Standby Mode

When System Standby is enabled, the AT-PRO5-MX810 will disable A/V extension and other components to reduce the power consumption of the device.

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click System in the top menu bar.
- 4. Locate the **Operation** window group.

	System						E LOGOUT
🗢 System			System	Network	Time		
Matrix Switching	Info			Operation			
III Configuration	Model Name AT-PRO5-MX810			System Standby			
Video Wall	Firmware Version 1.0.0			Reset to Default	FACTORY RESET		
Control	Semtech Version 0.2 IP Address 10 20 20 87			System Reboot	REBOOT		
 Maintenance 	MAC Address B8 88 80 00 E F9 65 System Time 2024 12 · 12 · 22 · 11 · 35 Temperature 45°C Fan Speed 1038 RPM						
	Logins Admin Password & SSH/Telnet TCP Proxy	8					
			Operation System Stand Reset to Defa System Rebo	on Jby ault rot	FACTORY RESE REBOOT	T	l

5. Click the **System Standby** toggle switch to enable or disable this feature. When enabled, the toggle switch will be orange and the **PWR** LED indicator, on the front panel, will be red.





Performing a Factory Reset

The AT-PRO5-MX810 can be restored to factory-default settings through the built-in web server or by pressing the **RESET** button on the rear panel. After performing a factory reset, the network IP mode will be set to DHCP mode and the login credentials will be reset. A new password will need to be created.

Using the Web Server

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click System in the top menu bar.
- 4. Locate the **Operation** window group.



- 5. Click the FACTORY RESET button.
- 6. The following message will be displayed.



- 7. Click FACTORY RESET to continue with the process or click CANCEL to abort.
- 8. Once the unit has finished rebooting, repeat the procedure for creating a password. Refer to Login Registration (page 13) for more information.



Using the Rear Panel

1. Locate the recessed **RESET** button on the rear panel.



- 2. Press and hold the **RESET** button for approximately 10 seconds, using the end of a paper clip or other small object.
- 3. Release the **RESET** button.
- 4. While the AT-PRO5-MX810 is rebooting, the STATUS LED indicator, on the front panel, will be blue and blink rapidly.
 STATUS LED

ATLONA	AT-PROS-MX810

5. Once the unit has finished rebooting, repeat the procedure for creating a password. Refer to Login Registration (page 13) for more information.



Rebooting the System

The following procedure will reboot the AT-PRO5-MX810. All network and routing settings are preserved.

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click System in the top menu bar.
- 4. Locate the **Operation** window group.



- 7. Click **REBOOT** to continue with the process or click **CANCEL** to abort.
- 8. Once the unit has finished rebooting, the Login screen will be displayed.



Network Configuration

Setting the IP Mode

a **Panduit** company

The AT-PRO5-MX810 is set to DHCP by default and will receive an IP address from the network's DHCP pool if a DHCP server is available. If no DHCP server is detected, the AT-PRO5-MX810 will automatically assign itself an APIPA address in the range 169.254.0.1 to 169.254.255.254, with a subnet mask of 255.255.0.0. A static IP address can also be specified.

IMPORTANT: Before assigning a static IP address to the AT-PRO5-MX810, it is recommended to consult with the network or system administrator and obtain a available IP address. Assigning the AT-PRO5-MX810 to an IP address that is already in use can result in network issues or difficulty in accessing the AT-PRO5-MX810.

Static IP Mode

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click Network in the top menu bar.
- 4. Locate the **Network** window group.
- 5. Click the Type drop-down list and select Static.

8		System	D LOGOUT
۵	System	System	Network Time
Ð	Matrix Switching	Network	Hostname
чþ	Configuration	MAC Address B6 90 0E: F9.65	Hostname MY2110 Carl/R5
::	Video Wall	DHCP · · · · · · · · · · · · · · · · · · ·	
D	Control	рнср	
٨	Maintenance		
		265 255 255 0	
		Gateway 10 20 20 1	
		IEEE 802.1X Authentication	
		Authentication Method EAP-TLS	
		Username *	
		Client Certificate*	letwork
		Private Key*	
		Private Key Passwerd *	AC Address
			ÎVDP
		Server Certificate Enat	
		CA Certificate *	
			рнср
			Static

- 6. Enter IP address, network mask, and gateway (router) address in the **Address**, **Netmask**, and **Gateway** fields, respectively.
- 7. Click the **SAVE** button to commit changes.



DHCP Mode

The AT-PRO5-MX810 is set to DHCP by default and will receive an IP address from the network's DHCP pool if a DHCP server is available. If no DHCP server is detected, the AT-PRO5-MX810 will automatically assign itself an APIPA address in the range 169.254.0.1 to 169.254.255.254, with a subnet mask of 255.255.0.0.

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click **Network** in the top menu bar.
- 4. Locate the **Network** window group.
- 5. Click the Type drop-down list and select DHCP.



6. Click the **SAVE** button to commit changes.



Device Operation

IEEE 802.1x Authentication

802.1x is a server-based port authentication which restricts unauthorized (rogue) clients from connecting to a Local Area Network. In its simplest form, 802.1X usually involves three parties: supplicant (client device), authenticator (Ethernet switch or WAP), and an authentication server. Before the device is permitted on the network, port communication is restricted to Extensible Authentication Protocol over LAN (EAPOL) traffic. If the device passes the authentication process, the authentication server notifies the switch, allowing the client to access the LAN. The illustration below shows the basic architecture.



The following options are available:

Protocol	Description
PEAP/MSCHAPv2	Protected EAP; uses basic credentials in addition to a CA (certificate authority) certificate.
EAP-TLS	EAP Transport Layer Security; uses a client certificate, private key, private key password, and CA (certificate authority) certificate.



- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click **Network** in the top menu bar.
- 4. Locate the IEEE 802.1x Authentication window group.
- 5. Click the **Enabled** toggle button.
- 6. Click the **Authentication Method** drop-down list and select the desired authentication method. In the example below, PEAP/MSCHAPv2 is selected. Once a method is selected, the required fields for that method will be displayed. Enter the required information in each field.

۲۰ 🚫		System	Э госол
\$	System	System	Network Time
9	Matrix Switching	Network	Hostname
-ili-	Configuration	MAC Address B8.98.807	DEEF955 Hostname MX810-0ef965
	Video Wall		
	Maintenance	Addess 10.20.20.87	
		Nemesk 255 255 255 0	
		Galleway 10.20.20.1	
			SAVE
		IEEE 802.1x Authentication	
		Automatication Mathed PEAP-MSCHAP V2	
		PEAP-MSCHAP V2	
		Provided 1	
		Server Certificate Enable	
		CA Certificate*	
			IEEE 802.1x Authentication
			Authentication Method PEAP-MSCHAP V2
CIIC	sk the S	AVE button to commit changes.	PEAP-MSCHAP V2
Dor	aandina	upon the authentication method, each	EAP-TLS
Dep		aribed as fellows	
neid	u is des	cribed as follows:	Password *
•	Userna	ame	
	The lae	entifier for the user or device that is	Server Cartificate
	attemp	ting to connect to the network.	
	Daeew	ord	CA Certificate *
•	Entor t	he nassword in this field	
		ne passworu in uns neiu.	

CA certificate

7.

A digital certificate issued by a Certificate Authority (CA) that serves as the foundation of trust for verifying other certificates, such as client certificates and server certificates. To upload the certificate, click the **Enabled** button, above the **Server Certificate** field, then click the **i** icon to select the certificate.

• Client Certificate

A digital certificate used to authenticate a device or user attempting to connect to the network. This is typically used in enterprise environments or when added security is desired. To upload the certificate, click the **Enabled** button, above the **Server Certificate** field, then click the **Field** icon to select the certificate.



• Private Key

A component of the public key infrastructure (PKI) and associated with the digital certificate. This key is securely stored and used to prove identity and enable secure communication. Click the river icon to select the private key.

• Private Key Password

This password is designed as a level of security used to protect the private key, associated with a digital certificate. The password is masked by default. Click the 💓 icon to toggle masking.

The table below provides a field summary. An orange dot indicates that this field will be displayed as part of the authentication method.

Authentication Method	Username	Password	CA Certificate	Client Certificate	Private Key	Private Key Password
PEAP/MSCHAPv2	•	•	•			
EAP-TLS	•				•	•



Setting the Host Name

By default, the AT-PRO5-MX810 is assgned a hostname, which is constructed as follows:

MX810-[last six digits of MAC address]

For example, a default hostname might look like this: MX810-0ef965. This value can be changed to easily identify the AT-PRO5-MX810 within Velocity Device Manager or on a network. The hostname cannot exceed 15 characters in length.

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click Network in the top menu bar.
- 4. Locate the Hostname window group.
- 5. Click the Hostname field and enter the desired name.





Device Operation

System Time

The AT-PRO5-MX810 uses an internal clock to store the current date and time. When setting the time and date, Universal Coordinated Time (UTC) must be used.

Setting the Time Zone

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click **Time** in the top menu bar.
- 4. Locate the **Time Zone** window group.



5. Click the ... icon to display the list of time zones. Set the desired time zone by clicking it. Alternatively, the **Filter** field, within the drop-down list, can be used to filter various time zones from the list.





Assigning an NTP Server

If NTP is functioning correctly, then the date and time will be set automatically. However, the local time will need to be set.

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click **Time** in the top menu bar.
- 4. Locate the **NTP** window group.
- 5. Click the **Enabled** toggle switch to enable NTP. When enabled, the toggle switch will be orange.
- 6. Enter the NTP server name.
- 7. Click the 🕞 icon to commit changes.





Device Operation

Setting the System Time

- 1. Log in to the web server.
- 2. Click System in the side menu bar.
- 3. Click **Time** in the top menu bar.
- 4. Locate the **System Time** window group.
- 5. Click the icon open up the time settings.

8		< System	
٠	System	System Network Time	
Ð	Matrix Switching	Time Zone System Time	
ф	Configuration	AmericalLos Angeles	
::	Video Wall		
	Control	NTP Enabled S M T W T F S	
٨	Maintenance	NTP Hothams pool ntp. org	
		9 20 21 22 23 24 25	
		872893	

- 6. Click the correct date from the calendar widget. The currently set date will be highlighted in orange.
- 7. Click on **AM** or **PM** and then select the correct hour from the clock widget, then click the correct minute from the next widget that is displayed.



Alternatively, the time and date can also be entered using the keyboard, within the **System Time** field.



Matrix Switching

The **A/V Routing** page manages the assignment of input video sources to outputs. By default, the AT-PRO5-MX810 is configured for *1-to-1* routing, where **Input 1** is assigned to **Output 1**, **Input 2** to **Output 2**, and so forth. Additionally, **Input 1** is routed to **Output 9**, and **Input 2** is routed to **Output 10**.

Video Routing

- 1. Log in to the web server.
- 2. Click Matrix Switching in the side menu bar.
- 3. Click **A/V Routing** in the top menu bar.
- 4. Click the checkboxes in the table to assign an input to an output. The checkbox will be orange once the selection is complete.



5. To route a single input to all outputs, click the ALL check box. In this example, Input 2 is routed to all outputs (Output 1 - Output 10).





Manual Audio Routing

The **Analog Audio Routing** page controls the distribution of de-embedded input audio to analog audio outputs. By default, the AT-PRO5-MX810 routes the audio from **Input 1** to all audio outputs (**Output 1 - Output 10**) configured.

- 1. Log in to the web server.
- 2. Click Matrix Switching in the side menu bar.
- 3. Click Analog Audio Routing in the top menu bar.
- 4. Make sure that the **Follow Video** toggle switch is disabled. When disabled, the toggle switch will be gray.
- 5. Click the checkboxes in the table to assign an input to an output. The checkbox will be orange once the selection is complete.
- 6. To route a single input to all outputs, click the **ALL** check box.

	Matrix Switching											
🗢 System				A۸	/ Routing	Analog Audi	o Routing	Presets				
Matrix Switching	Analog Audio Routing											
•I∥• Configuration		Follow Video 🌑										
Video Wall		Source/Zone	Line Out 1	Line Out 2	Line Out 3	Line Out 4	Line Out 5	Line Out 6	Line Out 7	Line Out 8	ALL	
Control		Input 1										
 Maintenance 		Input 2		0			D					
		Input 3				D						
		Input 4										
		Input 5				Ó						
		Input 6										
		Input 7										
		Input 8										

Follow Video

This feature is enabled by default. When **Follow Video** toggle switch is enabled, the toggle switch will be orange and manual audio routing is disabled. In this mode, each audio output automatically de-embeds audio from its corresponding video output. For instance, **Audio Output 1** will de-embed audio from **EXT1**.

	Matrix Switching										
🔅 System				AV	Routing	Analog Audic	Routing	Presets			
Matrix Switching	Analog Audio Routing										
-i∥- Configuration		Follow Video	In this mode, analog I	ine outputs will follow t	he corresponding exte	nsion output.					
Video Wall		Source/Zone	Line Out 1	Line Out 2	Line Out 3	Line Out 4	Line Out 5	Line Out 6	Line Out 7	Line Out 8	ALL
Control		Input 1									
 Maintenance 		Input 2									
		Input 3									
		Input 4									
		Input 5									
		Input 6									
		Input 7									
		Input 8									



Saving / Loading Switching Presets

The **Presets** page allows saving and loading of input/output switch configurations to and from the matrix. Up to ten switching presets can be stored.

- 1. Log in to the web server.
- 2. Click Matrix Switching in the side menu bar.
- 3. Click **Presets** in the top menu bar.
- 4. Enter the name of the preset in the desired **Preset** field, then click the **R** icon to save the name of the preset.
- 5. Click the **Save** button to assign the currently configured configuration to the preset. To remove the configuration from the preset, click the **Clear** button.



Activating a Preset

- 1. Log in to the web server.
- 2. Click Matrix Switching in the side menu bar.
- 3. Click **Presets** in the top menu bar.
- 4. Select the desired preset and click **ACTIVATE** to load the saved routing state.





Matrix Configuration

This section covers modification of input/output names, EDID management, and HDCP capabilities for each input, while also displaying video and audio information for each input.

Changing the Input Name

By default, inputs are named **Input 1**, **Input 2**, **Input 3**, and so on. It is recommended to rename each input based on the connected source.

- 1. Log in to the web server.
- 2. Click **Configuration** in the side menu bar.
- 3. Click **Input** in the top menu bar.

						and the second second second second second second			
⁄		Configuration							E LOGOUT
٥	System			Input	Output	EDID	Analog Audio		
Ð	Matrix Switching	Input 1		Input 2	•			Input 4	•
ф	Configuration	Name Input 1		Name Input 2	8	Name Input 3		Name Input 4	8
::	Video Wall	EDID ATL 4K60 MCH HDR		EDID ATL 4K60 MCH HDR		ATL 4K60 MCH HDR		EDID ATL 4K60 MCH HDR	
Q	Control	HDCP Enable		HDCP Enable		HDCP Enable		HDCP Enable	
٨	Maintenance	Video info		Video Info	- 4			Video Info	_
		1920x1080,30;DYNAMIC HDR;YCDCr 444;12 bit		1920x1080,30;NO HDR;RGB;8 Dit		1920x1080,60;NO HDR;RGB;8 bit		3840x2160,60,NO HDR;RGB;8 Dit	
		PCM;48kHZ		NONE;0kHZ		PCM;44.1kHZ		PCM;48kHZ	
		HDCP Wer NO HDCP		HDCP Ver HDCP1.4				HDCP Ver NO HDCP	
		loout 6	_	locut 6				Input 9	
		Name		Name				Name	
		Input 5		Input 6		Input 7		Input 8	
		ATL 4K60 MCH HDR		ATL 4K60 MCH HDR	•	ATL 4K60 MCH HDR		ATL 4K60 MCH HDR	-
		HDCP Enable		HDCP Enable		HDCP Enable		HDCP Enable	
		Video Info 1920x1080,60;DYNAMIC HDR;YCbCr 422;8 bit		Video Info 3840x2160,60;DYNAMIC HDR;YCbCr 422;8 bit		Video Info 3840x2160,60;NO HDR;RGB;8 bit		video Info 0x0,0;NO HDR;RGB;8 bit	
		Audio Info NONE;0KHZ		Audio Info PCM;48KHZ		Audio Info PCM;48kHZ		Audio Info NONE;0kHZ	
		HDCP Ver NO HDCP		HDCP Ver NO HDCP				HDCP Ver NO HDCP	
		0		1					

- 4. Click the Name field of the desired input.
- 5. Enter the desired name for the input. In this example, PlayStation_4 is used, identifying the source.
- Click the ciccon to save the name of the input. Note that the name of the input, in orange, will not change. The new input name will appear under the Matrix Switching > A/V Routing and Matrix Switching > Analog Audio Routing pages.

		Connection status
Input 1	• 4	
Name PlayStation_4	8	The dot in the top-right corner of each input box shows the connection status:
ATL 4K60 MCH HDR		• Green : The input source is connected to the corresponding port and has an active signal.
Video Info 1920x1080,30;DYNAMIC HDR;YCbCr 444;12 bit		• Orange : The input source is not connected to the corresponding port.



Selecting an EDID

Before sending picture and sound to a display, a source device reads the EDID (Extended Display Identification Data) from the display. This data specifies the video and audio formats the display supports. The AT-PRO5-MX810 includes several pre-programmed EDID options and also allows the storage of custom EDID data.. Refer to EDID Management (page 40) for more information.

- 1. Log in to the web server.
- 2. Click **Configuration** in the side menu bar.
- 3. Click **Input** in the top menu bar.

8		Configuration					4			E LOGOUT
۵	System			Input Out	put	EDID	Analog Audio			
Ð	Matrix Switching	Input 1	•	Input 2	•	Input 3	16	•	Input 4	•
dh	Configuration	Name Leavel 4		Name Input 2		Name			Name Input 4	8
	Video Well	Copy from Output 1		EDID		EDID			EDID	_
		Copy from Output 2		ATL 4K60 PCM MCH HDR		ATL 4K60 MCH HDR			ATL 4K60 MCH HDR	<u> </u>
ų	Control	Copy from Output 3		HDCP Enable		HDCP Enable			HDCP Enable	
٨	Maintenance	Copy from Output 4		Video Info 1920x1080,30;NO HDR;RGB;8 bit		Video Info 1920x1080,60;NO HDR;RGB;8 bit			Video Info 3840x2160,60;NO HDR;RGB;8 bit	
		Copy from Output 6		Audio Info		Audio Info			Audio Info	
		Copy from Output 7		NONE;0kHZ	_	PCM;44.1kHZ	* *		PCM;48kHZ	_
		Copy from Output 8		NO HDCP		HDCP Ver HDCP2.2			NO HDCP	
		Copy from Output 9	-							
		Copy from Output 10	•						Input 8	•
		ATL 4K60 MCH HDR		Input 6		Input 7			Name Input 8	8
		ATL 4K60 MCH								
		ATL 4K60 PCM MCH								_
		ATL 4K60 2CH		HUCP Enable						
		ATL 1080P MCH		Video Info 3840x2160,60;DYNAMIC HDR;YCbCr 422;8 bit		3840x2160,60;NO HDR;RGB;8 bit			0x0,0;NO HDR;RGB;8 bit	
		ATL 1080P 2CH		Audio Info DCA449kUZ		Audio Info				
		ATL 1080P DD		HDCP Ver		HDCP Ver			HDCP Ver	
		ATL 1080P DVI				NO HDCP			NO HDCP	
		ATL 720P 00								
		Custom 1								
		Custom 2								
		Custom 3								
		Custom 4								
		Custom 5								

- 4. Click the EDID drop-down list and select the desired EDID. In this example, the ATL 4K60 MCH HDR EDID is being selected.
- 5. Click on the highlighted EDID to commit changes.



HDCP Content

Transmitting HDCP content to a display that is not HDCP compliant can result in "snow", image flickering, or no picture. In the illustration below, a laptop source is connected to the AT-PRO5-MX810, which is connected to a display that is not HDCP compliant.



By default, the laptop may transmit HDCP content. However, when connected to a display that does not support HDCP, the laptop must be instructed to send non-HDCP content in order for the content to be displayed.

- 1. Log in to the web server.
- 2. Click Configuration in the side menu bar.
- 3. Click Input in the top menu bar.
- 4. Click the toggle switch for the desired input. For example, toggling **HDCP Enable** under Input 1 to the Off position will prompt the source device to send non-HDCP content, if it is supported.

Input 1	•
Name Input 1	8
EDID ATL 4K60 MCH HDR	
Video Info 1920x1080,30;DYNAMIC HDR;YCbCr 444;12 bit	



Changing the Output Name

By default, inputs are named **Output 1**, **Output 2**, **Output 3**, and so on. It is recommended to rename each output based on the connected output device.

- 1. Log in to the web server.
- 2. Click **Configuration** in the side menu bar.
- 3. Click Output in the top menu bar.

	Configuration							e] LOGOUT		
🔅 System		Input		Output	EDID	Analog Audio					
Matrix Switching	Output 1	Output 2		Output 3	•	Output 4		Output 5	•		
-i∥i- Configuration	Name Output 1	Name Output 2		Name Output 3	8	Name Output 4		Name Output 5	8		
Video Wall	Display Mode Genlock	Display Mode Genlock		Video Info 0x0,0;NO HDR;RGB;8 bit		Video Info 0x0,0;NO HDR;RGB;8 bit		Display Mode Genlock	•		
Control	Video Info 1920x540 60: DYNAMIC HDR: YCbCr 444:1:	Video Info 1920x540 60 DYNAMIC HDR YCbCr 444 1:		Audio Info NONE:0kHZ		Audio Info NONE OKHZ		Video Info 1920x540 60:DYNAMIC HDR YCbCr 44	4:1:		
 Maintenance 	Audio Info	Audio Info		HDCP Ver		HDCP Ver		Audio Info			
	PCM,48kHZ HDCP Ver	PCM;48KHZ HDCP Ver		NO HDCP		NO HDCP		PCM;48KHZ HDCP Ver			
	NO HDCP	NO HDCP						NO HDCP			
	Output 6	Output 7		Output 8	•	Output 9		Output 10	•		
	Name Output 6	Name Output 7		Name Output 8		Name Output 9		Name Output 10	8		
	Display Mode Genlock	Video Into 0x0,0;NO HDR;RGB;8 bit		Video Info 0x0,0;NO HDR;RGB;8 bit		Video Info 0x0,0;NO HDR;RGB;8 bit		Video Into 0x0,0;NO HDR;RGB;8 bit			
	Video Info 1920x540,60;DYNAMIC HDR;YCbCr 444;1:	Audio Info NONE;0kHZ		Audio Info NONE;0kHZ		Audio tréo NONE;0kHZ		Autio Info NONE;0kHZ			
	Audio Info PCM;48kHZ	HDCP Ver NO HDCP		HDCP Ver NO HDCP		HDCP Ver NO HDCP		HDCP Ver NO HDCP			
	HDCP Ver NO HDCP										

- 4. Click the **Name** field of the desired output.
- 5. Enter the desired name for the output. In this example, Samsung1 is used, identifying the sink device.
- 6. Click the cicon to save the name of the output. Note that the name of the output, in orange, will not change. The new output name will appear under the Matrix Switching > A/V Routing and Matrix Switching > Analog Audio Routing pages.

Output 1	•
Name Samsung1	٦
Display Mode Genlock	
Video Info 1920x540,60;DYNAMIC HDR;YCbCr 444;1;	
Audio Info PCM;48kHZ	
HDCP Ver NO HDCP	



Changing the Display Mode

When the corresponding SDVoE output is connected with an AT-PRO5-101-SC-RX receiver, the display mode can be switched between Genlock or Scaler.

IMPORTANT: Display modes can only be selected when an AT-PRO5-101-SC-TX receiver is connected to an SDVoE output. If an AT-PRO5-101-RX receiver is used, the drop-down list will not appear.

- 1. Log in to the web server.
- 2. Click **Configuration** in the side menu bar.
- 3. Click **Output** in the top menu bar.



4. Click the **Display Mode** drop-down list and select the desired display mode.

Output 6	•
Name Output 6	8
Display Mode Genlock	
Genlock	
Scaler	
PCM;48kHZ	
HDCP Ver HDCP1.4	

Refer to *Table 1.1* on the next page for a description of display modes.

Device Operation

Table 1.1 - Display Modes

Mode	Description	
Genlock	This mode mimics the k The HDMI signal is most compression applied to bandwidth. The display (genlocked) to the source receivers use the same source, ensuring comple Genlock mode provides	behavior of a direct wired connection. Stly unchanged, with only light video of the within the cable's 10Gbps network connected to the receiver is synchronized ce connected to the matrix. When multiple input, all connected displays sync to that lete synchronization across all displays. Is the lowest possible latency.
Scalor	This mode allows soles	tion botwoon Fact, and lan and Can lack
Scalei	scaler modes	tion between Fast scaler and Genrock
	Mode	Description
	Fast scaler	This mode allows for quick source switching with resolution scaling or frame rate conversion, as needed. It keeps the output timing and format constant, so the display doesn't need to re-synchronize, resulting in smooth transitions. However, a frame buffer adds a latency of 1 to 2 frames.
	Genlock scaler	This mode combines the low latency and source synchronization of Genlock mode with the scaling features of Fast Switch mode. When enabled, the output port can handle format conversions, like 1080p to 720p, but does not perform frame rate conversion, avoiding any frame buffer latency. By keeping the output synchronized (genlocked) to the source, this mode ensures the lowest possible latency for displays with resolutions different from the source.

When set to Scaler mode, two additional drop-down lists will be available: Scaler Mode and Output Resolution. Refer to the table above for information on the Fast scaler and Genlock scaler modes.

The **Output Resolution** drop-down list provides the following resolutions, listed in *Table 1.2*.

Table 1.2 - Available Output Resolutions in Scaler Mode	Э.
---	----

Resolutions			
720P	1080P	2160P	4096x2160
1024x768	1280x768	1280x960	1280x1024
1360x768	1400x1050	1600x1200	1680x1050
1920x1200			

EDID Management

Before a source can send picture and sound to a display device, the source reads the EDID (Extended Display Identification Data) stored in the display. The EDID contains information about what type of video and audio formats are supported by the display. The AT-PRO5-MX810 can use a factory-programmed EDID, the downstream EDID (from the display/sink) or a custom EDID. The AT-PRO5-MX810 provides a five blank memory locations that can be used to store EDID data.

By default, the AT-PRO5-MX810 will use the ATL 4K60 MCH HDR EDID for each input. However, this can be modified.

- 1. Log in to the web server.
- 2. Click Configuration in the side menu bar.
- 3. Click **EDID** in the top menu bar.

System Input Output EDID Analog Audio	
Matrix Switching EDID Management	
Configuration Seed:150 Tetrade Month HDR Tetrade	
teo owen	
Control Control Control	
Mantenance OPT FFFFFFFFFFFFFFFFFFFFFFFF OPT CodeBio Device 201400000000000000000000000000000000000	

4. Click the Select EDID drop-down list to select the desired EDID.

5. The **EDID Name** field displays the EDID name and the raw EDID data will be displayed in the **EDID Data** window.

EDID Management	
Select EDID	EDID Name
ATL 4K60 MCH HDR	EDID Data
EDID Data 00FFFFFFFFFF00068C2940000000321E01038059327822EE91A3544C992601 08180810008E80030F2705A80B0588A0020C23100001E000000FC0041542D50524 000000000000000000000000FD00173C0F873C000A202020202001AD02034472 F320F7F07177F183F7F18577F005F7F00677F00837F000067030C0010003878671 0030F2705A80B0588A0020C23100001E0000000000000000000000000000000	55054010800D100B300A940A9C09500904 4F352D4D58383130000000100000000000 L50616968675F5E5D4C606B6A100514041 085DC401788007E305C000E3060F0108E8 000000000000000000000000000000000

EDID Presets

The AT-PRO5-MX810 provides the option of selecting an EDID. The following options are available from the **EDID** drop-down list, for each input.

EDID 🔺	Description
Copy from Output 1	Uses the EDID that is connected to the selected output.
Copy from Output 10	
ATL 4K60 MCH HDR	3840 x 2160 @ 60 Hz / multichannel audio / HDR
ATL 4K60 MCH	3840 x 2160 @ 60 Hz / multichannel audio
ATL 4K60 PCM MCH HDR	3840 x 2160 @ 60 Hz / multichannel LPCM audio / HDR
ATL 4K60 PCM MCH	3840 x 2160 @ 60 Hz / multichannel LPCM audio
ATL 4K60 2CH	3840 x 2160 @ 60 Hz / 2-channel audio
ATL 1080P MCH	1920 x 1080 / multichannel audio
ATL 1080P 2CH	1920 x 1080 / 2-channel audio
ATL 1080P DD	1920 x 1080 / Dolby® Digital
ATL 1080P DVI	1920 x 1080 / DVI
ATL 720P DD	1280 x 720 / Dolby® Digital
ATL 720P 2CH	1280 x 720 / 2-channel audio
Custom 1Custom 5	Selects a custom EDID preset

Creating a Custom EDID

The AT-PRO5-MX810 provides a five blank memory locations that can be used to store EDID data. These memory locations are non-volatile and the EDID data is retained after power is disconnected from the unit.

- 1. Log in to the web server.
- 2. Click **Configuration** in the side menu bar.
- 3. Click EDID in the top menu bar.
- 4. Click the Select EDID drop-down list to select one of the custom EDID memory locations. In this example, Custom 1 is selected.

6	<u>)</u> лт		Configuration					E LOGOUT
*	¢ :	System		Input	Output	EDID	Analog Audio	
Ξ	•	Matrix Switching	EDID Management					
-1	(r	Configuration	Select EDID Custom 1					
:		Video Wall	EDID Name Curriers 1					
Ģ	2	Control	EDID Data					
e		Maintenance	000FFFFFFFFFFF00506C2246000000000000000000000000000000000	3344.09.2007-505401680001008 145402095473-5250049581310 145402095473-5555 6008818003167-554555 6008818003167-554580895884000 00080000000000000000000000000000	380A04A07C09500304 390A04A07C095003000 0AC60666A107022051 0AC60666A107022051 0AC6066600000000 3800000000000000000000 0AC6000000000000000			

- 5. Type the name of the EDID in the EDID Name field.
- 6. Copy and paste the raw EDID data in the **EDID Data** field. Raw EDID data should not contain any spaces or delimiters.
- 7. Click the SAVE button.

Copying a Downstream EDID

The AT-PRO5-MX810 provides a five blank memory locations that can be used to store EDID data. These memory locations are non-volatile and the EDID data is retained after power is disconnected from the unit.

- 1. Connect an HDMI cable from the HDMI output port (or HDMI output on the receiver) to the HDMI input on the display, containing the EDID to be stored.
- 2. Log in to the web server.
- 3. Click **Configuration** in the side menu bar.
- 4. Click **EDID** in the top menu bar.
- 5. Click the Select EDID drop-down list to select one of the Copy Output selections. In this example, Copy Output 1 is selected.

If the EDID cannot be retrieved, then ERROR, UNCONNECT will be displayed in the EDID Data field. Check the cable connections or try another cable.

6. Click the **SAVE** button.

Device Operation

Video Walls

IMPORTANT: In order to use the video wall feature, AT-PRO5-101-SC-RX scaling receivers must be used.

Creating a Video Wall

- 1. Log in to the web server.
- 2. Click Video Wall in the side menu bar.

Enabled button

- 3. Click the **Enabled** toggle switch to enable the video wall feature. When enabled, the toggle switch will be orange.
- 4. Click the **Layout** drop-down list to select the desired video wall configuration. In this example, 2x2 has been selected.

<u></u>		Video Wall								_			\mathbb{Z}				D LOGOUT
۵	System	Video Wall								E	nabled 🛑	Bezel Adjustment					
Ð	Matrix Switching	Layout 2x2]						Outer Width		ow		H	
-th-	Configuration	2x2										Outer Height			Ŧ		
::	Video Wall	1x3	_												-		
	Control	2x4										0			-	ŝ	
٨	Maintenance		Output 1	Output 2	Output 3	Output 4	Output 5	Output 6		RX not comected	Output 8 RX not comected	Inner Height 0		IW +		ī	
		Top Left															
		Top Right										VIGEO Wall Resold	uuon				
		Bottom Left										3840x2160					
		Bottom Right										Video Wall Mode					
		Video Wall II										Adaptive Wall	FastSwitch	h Wall			
			Lenovo	Input 2	Input 3	Input 4	Input 6	Input 6		/ indu	Input 8						
		Source															
		Video Wall F	Presets														
		Preset 1			VATE Pres				ATE						CTIVATE		ACTIVATE
		Preset Name Preset 1			E Pr	eset 2				Preset Name Preset 3			Preset Nam Preset 4			Preset Name Preset 5	8

Under the Video Wall Outputs section, click the radio button that corresponds with the desired output. In this example, Output 1 has been assigned to the Top Left window, Output 2 to the Top Right window, and so on. Refer to the illustration below.

Video Wall (Outputs				
	Output 1	Output 2	Output 3	Output 4	
Top Left	٥	0	0	0	
Top Right	0	<u></u>	0	0	
Bottom Left	0	0	۲	0	
Bottom Right	0	0	0	٥	

- 6. Under the **Video Wall Inputs** section, click the radio button for the desired input video source. In this example, **Input 1** ("Lenovo") is selected.
- 7. Click the **Resolution** drop-down list, located under the **Video Wall Resolution** section, and select the desired resolution. In this example, 3840x2160 is selected.

Figure 1.1 - Illustration of the AT-PRO5-MX810 and four AT-PRO5-SC-RX receivers.

8. Locate the Video Wall Mode section and click the radio button for the desired mode. In this example, FastSwitch Wall is selected. Refer to Table 1.1 for a description of modes.

Table 1.1 - Video Wall Modes

Mode	Description					
Adaptive Wall	This is the default setting. In this mode, all screens stay synchronized with the source, ensuring high-quality output. However, switching to a new source takes some time to complete.					
FastSwitch Wall	This mode offers faster source switching than Adaptive Wall mode, making it ideal for setups with more than three switch hops. However, latency may vary, and up to one frame of screen tearing can occur.					

9. Check the image, on each display, and make sure they are aligned correctly with the other images on the video wall. Adjust the fields under the **Bezel Adjustment** section to adjust bevel compensation, if necessary.

Saving a Video Wall Preset

A video wall can be saved as a preset after creation, allowing up to ten video wall presets to be stored.

- 1. Create the desired video wall configuration.
- 2. Locate the Video Wall Presets section.
- 3. Enter the name of the preset in the desired **Preset** field, then click the **R** icon to save the name of the preset.
- 4. Click the **Save** button to assign the currently configured video wall to the preset. To remove the video wall configuration from the preset, click the **Clear** button.

Device Control

The Control menu contains two pages: RS-232 and CEC.

RS-232 Control Settings

This section provides options to configure RS-232 parameters for each output gateway, enabling control of remote third-party devices through the SDVoE receiver's **RS-232** port.

- 1. Make sure that the third-party device is connected to the **RS-232** port on the AT-PRO5-101-RX or AT-PRO5-101-SC-RX receiver.
- 2. Log in to the web server.
- 3. Click **Control** in the side menu bar.
- 4. Click RS-232 in the top menu bar.
- 5. Click the **Destination** drop-down list to select the output port. Available options are Output 1...Output 8.
- 6. Click the Baud Rate drop down list to select the required baud rate. Available options are 9600, 19200, 38400, 57600, and 115200.

<u> </u>		Control 3 Losour
۵	System	R5232 CEC
Ξ	Matrix Switching	RS-232
${}^{\rm (h)}$	Configuration	Dentement Revention Denty Control 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
::	Video Wall	
₽	Control	Command E HEX 1500
•	Maintonance	

- 7. Click the **Parity**, **Data Bits**, and **Stop Bit** drop-down lists to set the required value. In most cases, these values will be NONE, 8, and 1, respectively.
- 8. Enter the command in the **Command** field. The command can be in either ASCII or hexadecimal format. If the command is entered in hexadecimal format, click the **HEX** checkbox.

An example of an ASCII string might be: PWON.

A command in hexadecimal format might be: \xBE\xEF\x03\x06\x00\xBA\xD2\x01\x00\x60\x01\x00\x0D

9. Click the SEND button to verify that the command works properly.

CEC Display Control

Consumer Electronics Control* (CEC) is the simplest method of control when working with a display. Note that the display must have CEC enabled to receive CEC messages. The **HDMI OUT** port is used for CEC control.

1. Enable CEC on the display device. Refer to the documentation for the display device. It should be noted that different manufacturers will identify CEC with their own brand name. Refer to the table below.

Manufacturer	CEC Designation
Hitachi	HDMI-CEC
LG	SIMPLINK
Philips	EasyLink
Samsung	AnyNet+
Sony	BRAVIA Sync
Toshiba	CE Link / REGZA Link
Visio	HDMI-CEC

- 2. Log in to the web server.
- 3. Click Control in the side menu bar.
- 4. Click **CEC** in the top menu bar.
- 5. Click the **Auto** toggle switch to enable or disable CEC auto control. When enabled, the toggle switch will be orange.

		Control					Ð L	.0GOUT
۵	System					RS232	CEC	
Ð	Matrix Switching	CEC Display 0	Control					
-ili-	Configuration	Output	Manual	Auto	Delay (1-30min)	Command Setting		
::	Video Wall	TV1 Top Left	DISPLAY ON DISPLAY OFF					
	Control	TV1 Bottom Left	DISPLAY ON DISPLAY OFF	-				
٨	Maintenance	TV1 Top Right	DISPLAY ON DISPLAY OFF	-				
		TV1 Bottom Right	DISPLAY ON DISPLAY OFF	-				
		TV2 Top Left	DISPLAY ON DISPLAY OFF	-				
		TV2 Bottom Left	DISPLAY ON DISPLAY OFF	-				
		TV2 Top Right	DISPLAY ON DISPLAY OFF	-				
		TV2 Bottom Right	DISPLAY ON DISPLAY OFF	-				
		Output 9	DISPLAY ON DISPLAY OFF	-				
		Output 10	DISPLAY ON DISPLAY OFF	-				

*Atlona has confirmed proper CEC functionality with several current models of Samsung, Panasonic, and Sony displays. However, it is not guaranteed that CEC will work with all displays. Many manufacturers do not support the CEC "off" command, and older displays use proprietary commands. Atlona only supports displays that use the CEC command structure defined in HDMI 1.2a. It is recommended that dealers request an evaluation product from Atlona, before designing a system using the CEC protocol. If this is not possible, then other control methods will need to be considered, in order to control displays using Atlona products.

- 6. Click the **Delay** drop-down list to select the delay interval. Values are from 1...30 minutes. This setting controls the display's power, toggling it on or off based on the presence of a video signal. For instance, if **Auto** control is enabled and the **Delay** is set to 2 minutes, the display will automatically power off if no signal is detected for 2 minutes
- 7. Click the $\cancel{2}$ icon to display the **Command Setting** fields.

Command Setting		
Display ON 40 04		
Display OFF 40 36		
	CANCEL OK	

8. Enter the power-on and power-off commands in the **Display ON** and **Display OFF** fields, respectively. Consult the documentation for the display for the correct command strings.

NOTE: The CEC commands currently set in the **Command Setting** fields should work with most display manufacturers.

- 9. Click the OK button to save changes.
- 10. Click the **DISPLAY ON** and **DISPLAY OFF** buttons to verify that each command works properly. If not, check the values entered for each command.

System Maintenance

Updating the Firmware

- 1. Log in to the web server.
- 2. Click Maintenance in the side menu bar.
- 3. Click System in the top menu bar.

81		Maintenance						Э госол
۵	System				System	Log	Power Saving	<u> </u>
Ξ	Matrix Switching	Firmware				Log Files		
ф	Configuration	Model AT-PRO5-MX810	MAC Address B8:98:B0:0E:F9:65		IP Address 10.20.20.87			
::	Video Wall	Firmware Version				Note, log export may	take 1min.	
Ģ	Control	ARM_1.0.0 AVP1_2.1.0	MCU_1.1.5 AVP2_2.1.0	CPLD_1.0.3 AVP3_2.1.0	FPGA_1.0.5 AVP4_2.1.0			
٨	Maintenance	AVP5_2.1.0						.
		RX1: MCU_1.1.2						
		RX5: MCU_1.1.2			RX8: MCU_1.1.2	DATE		
					<u> </u>			

- Under the Firmware window group, all firmware versions will be listed. If there are AT-PRO5-101-RX and/or AT-PRO5-101-SC-RX receivers connected to the AT-PRO5-MX810, then the receiver firmware version will also be listed.
- 5. Click the **UPDATE** button.
- 6. The Open dialog will be displayed. Locate the firmware file and click the Open button.

Downloading Log Files

This feature allows log files to be downloaded to the local PC. Log files are used for troubleshooting purposes and may be requested by Atlona Technical Support Engineers.

- 1. Log in to the web server.
- 2. Click Maintenance in the side menu bar.
- 3. Click **System** in the top menu bar.
- 4. Under the Log Files window group, click the **DOWNLOAD** button. Log files are automatically downloaded to the C:\Users\[Username]\Downloads folder on the PC.

API Testing

This page provides testing of JSON-RPC 2.0 commands.

- 1. Log in to the web server.
- 2. Click Maintenance in the side menu bar.
- 3. Click **Log** in the top menu bar.

System System Log Power Saving Marris Switching API Test Vadio Vall	
Matrix Switching API Test W Configuration Image: Second s	
· · · Configuration API Command [score] [score]	
IVoto Wall Image: State of the state	
Control MaritemanCo Une Log Une Log	
Mantenance Uve Log Uve Lo	
Live Log	
Ine versoary message	
1425 07 Receive 01/1946wp/10/2040 17/1044/08/00 00/24/05/1	
14207 sent (polype'2 2) of "HelenoxCellenox" (helenox Cell)	
APIJest	
API Command A	
teanne", "2.0"	
JSourpe 2.0,	
10 : Networkgetkesuits ,	
"method": "Network.Get"	

- 4. Enter the JSON string in the **API Command** field.
- 5. Click the **SEND** button. If the JSON-RPC 2.0 command is valid, feedback will be displayed under the **Live Log** section.

Power Saving

To conserve power, the AT-PRO5-MX810 provides the ability to disable the PoE function for ports **EXT 1** - **EXT 8** (RJ45) when they are not in use. Additionally, it supports monitoring the operating status of remote SDVoE receivers.

- 1. Log in to the web server.
- 2. Click Maintenance in the side menu bar.
- 3. Click **Power Saving** in the top menu bar.

4. Click the **Power Saving** toggle switch for each output to enable or disable power saving. When enabled, the **Power Saving** toggle switch will be orange.

Appendix

Specifications

Video						
Signal	Input – HDMI					
	Output – SDVoE (RJ45, SFP+)					
Copy Protection	HDCP 1.4 / 2.2 / 2.3					
Pixel Clock	600 MHz					
UHD/HD/SD	4096x2160 @ 60/50/30/25/24 Hz720x5703840×2160 @ 60/50/30/25/24 Hz720x5701920x1080p @ 60/59.9/50/30/29.97/25/640x48024/23.98 Hz640x4801920x1080i @ 30/29.97/25 Hz1280x720p @ 60/59.94/50 Hz			50 Hz 25 Hz 60/59.96 Hz 30 Hz		
VESA	2560×1600 2048×1536 1920×1200 1680×1050 1600×1200 1440×900 1400×1050 1366×768	5	1360×768 1280×1024 1280×800 1152×864 1024×768 800×600 640×480			
Color Space	YUV, RGB					
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0					
Color Depth	8-bit, 10-bit, 12-bit					
HDR	HDR10, Hybrid-Log Gamma (HLG), and Dolby® Vision™ @ up to 60 Hz					
A 11						
Audio HDMI Pass-Through Formats	LPCM 2.0 LPCM 5.1 LPCM 7.1	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [©]	I Plus™) ®	DTS [®] Digital Surround [™] DTS-HD Master Audio [™] DTS:X [®]		
Audio HDMI Pass-Through Formats Bit Depth	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos ⁶	l Plus™) ®	DTS [®] Digital Surround [™] DTS-HD Master Audio [™] DTS:X [®]		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [©] 38.2 kHz, 96 kH	I Plus™) ▣ Hz, 176.4 kHz,	DTS [®] Digital Surround [™] DTS-HD Master Audio [™] DTS:X [®] 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos ⁶ 38.2 kHz, 96 kH	I Plus™) ⊎ Hz, 176.4 kHz,	DTS [®] Digital Surround [™] DTS-HD Master Audio [™] DTS:X [®] 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [©] 38.2 kHz, 96 kH	I Plus™) ₽ Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X®		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos ⁰ 38.2 kHz, 96 kH	I Plus™) ⊎ Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X®		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [®] 38.2 kHz, 96 kH	l Plus™) ₽ Hz, 176.4 kHz,	DTS [®] Digital Surround [™] DTS-HD Master Audio [™] DTS:X [®] 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos ⁰ 88.2 kHz, 96 kH	I Plus™) ₽ Hz, 176.4 kHz,	DTS [®] Digital Surround [™] DTS-HD Master Audio [™] DTS:X [®] 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos ⁶ 38.2 kHz, 96 kH	I Plus™) ⊎ Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X®		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port Standards and Protocols	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [©] 38.2 kHz, 96 kH	I Plus™) ₽ Hz, 176.4 kHz,	DTS® Digital Surround [™] DTS-HD Master Audio [™] DTS:X®		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port Standards and Protocols Speeds	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio 1 x RJ45 HTTP, HTTPS, Telnet, SSH, 10/100/1000 Mbps	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos ^G 38.2 kHz, 96 kH	I Plus™) ⊮ Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X®		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port Standards and Protocols Speeds Addressing	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio 1 x RJ45 HTTP, HTTPS, Telnet, SSH, 10/100/1000 Mbps DHCP, Static, APIPA	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos ⁶ 38.2 kHz, 96 kH	I Plus™) P Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X® 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port Standards and Protocols Speeds Addressing	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio 1 x RJ45 HTTP, HTTPS, Telnet, SSH, 10/100/1000 Mbps DHCP, Static, APIPA	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [©] 38.2 kHz, 96 kH	I Plus™) P Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X® 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port Standards and Protocols Speeds Addressing RS-232 Port	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio 1 x RJ45 HTTP, HTTPS, Telnet, SSH, 10/100/1000 Mbps DHCP, Static, APIPA	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [©] 38.2 kHz, 96 kH mDNS	I Plus™) P Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X® 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port Standards and Protocols Speeds Addressing RS-232 Port Use	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio 1 x RJ45 HTTP, HTTPS, Telnet, SSH, 10/100/1000 Mbps DHCP, Static, APIPA	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [©] 88.2 kHz, 96 kH mDNS	I Plus™) ® Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X® 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port Standards and Protocols Speeds Addressing RS-232 Port Use Baud Rates	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio 1 x RJ45 HTTP, HTTPS, Telnet, SSH, 10/100/1000 Mbps DHCP, Static, APIPA 1 x 3-pin captive screw, TX Device control and configur 2400, 4800, 9600, 19200, 3	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos ^G 38.2 kHz, 96 kH mDNS , RX, GND ration 38400, 57600.	I Plus™) [®] Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X® 192 kHz		
Audio HDMI Pass-Through Formats Bit Depth Sample Rate Analog Audio Format Type Ethernet Port Standards and Protocols Speeds Addressing RS-232 Port Use Baud Rates Data Flow	LPCM 2.0 LPCM 5.1 LPCM 7.1 Up to 24 bits 32 kHz, 44.1 kHz, 48 kHz, 8 Stereo 2-Channel Balanced Audio 1 x RJ45 HTTP, HTTPS, Telnet, SSH, 10/100/1000 Mbps DHCP, Static, APIPA 1 x 3-pin captive screw, TX Device control and configur 2400, 4800, 9600, 19200, 3 Bidirectional	Dolby [®] Digita Dolby Digital Dolby TrueHE Dolby Atmos [®] 38.2 kHz, 96 kH mDNS , RX, GND ration 8400, 57600, 7	I Plus™) Hz, 176.4 kHz,	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X® 192 kHz		

Appendix

CEC						
Ports	2 x HDMI OUT, Type A, 19-pin female					
Triggering	IP, RS-232, and built-in web server					
Resolution / Distance	4K/UHD - Feet / Me	ters	1080p - Feet / Mete	rs		
HDMI IN/OUT	15	5	30	10		
CAT6a	330	100	330	100		
Buttons and Indicators						
Buttons:						
RESET	1 x momentary, rece	essed				
Indicators:						
PWR	1 x LED, blue					
STATUS	1 x LED, blue/red/of	f				
Connectors		*				
	8 x Type A 19-pin fe	male				
	$2 \times Type A$, 19-pin fe					
EXT $1 = 8$ (SDVoE)	2 x Type A, 19-pill terriale					
	8 x SFP+ cage, female					
RS-232	1 x 3-pin captive sci	rew				
LAN	1 x RJ45, 1000Base-T					
IR IN	8 x 3.5 mm jack, female					
IR OUT	8 x 3.5 mm jack, female					
AUDIO OUT	8 x 5-pin captive screw, balanced / unbalanced, 2-channel					
AC100-240V 50/60 Hz	IEC					
		*				
Environmental	Fahrenheit		Celsius			
Operating Temperature	+32 to +122		0 to +50			
Storage Temperature	-4 to +140 -20 to +60					
Operating Humidity (RH)	20% to 90%, non-condensing					
Maximum Operating Altitude	2000 meters					
Power						
Consumption (maximum)	156 5 W					
Consumption (idle)	43.8 W					
Consumption (operating)	59 W					
BTLI/b (maximum)	533.67					
BTU/h (idle)	149.36					
BTU/h (operating)	201.19					
Dimensions (H x W x D)	Inches		Millimeters			
Unit (2U)	3.46 x 17.32 x 14.18		88.00 x 440.00 x 36	0.20		
Moight			Kilograme			
Device			Rilograms			
Device	10.09		1.3			

Appendix

Certification	
Device	CE, FCC, RoHS
Power Supply	CE, FCC, RoHS, CCC, CB
Compliance	
NDAA-889	Yes
ТАА	No
Warranty	
3 years	View the full warranty information here: <u>https://atlona.com/warranty</u>

