User Manual
AC-MX82-AUHD

AC-MX82-AUHD-RM

(RM ~ Rack Mountable Version)

The AC-MX82-AUHD is a true 8x2 HDMI matrix switch. Supporting HDMI 2.0(a/b), HDCP 2.2, up to 4K video resolution, and up to 18 Gbps bandwidth. This switch allows any source (Blu-ray, UHD Blu-ray, satellite receiver, game consoles, PCs, etc ...) to be shown on any of the connected displays. This matrix equalizes and amplifies the output to ensure the HDMI signal can be transmitted through long HDMI cables without loss of quality.

The AC-MX82-AUHD is ideal for bypassing AVR's that do not support full 18Gbps. You can bypass uncompressed HDMI to the display while running down-scaled video into a legacy AVR. Only video is reduced and audio remains untouched, making it an ideal component for systems where high bit rate audio is critical.

Conference room all-star. The auto-switching feature makes this unit an ideal, affordable, component for any conference room system. Ideal for feeding a video signal into a video conferencing codec with very little setup.

This is an ideal solution for digital entertainment centers, HDTV retail, show sites, data centers, schools, conference and training centers and more!

Features:

- HDMI 2.0(a/b)
- 18Gbps Bandwidth Support
- 4K60 4:4:4 Support
- Full HDR Support (HDR 10 & 12 Bit)
- Dolby Vision, HDR10+ and HLG Support
- HDCP 2.2 (and all earlier versions supported)
- 4K > 1080p Down Scaler (Out 1) for mixed systems
- Perfect AVR Bypass deliver 18Gbps to Display and uncompressed audio to AVR
- Advanced EDID Management
- IR, RS-232 and LAN Control Options
- Digital Toslink Out (7CH PCM, DD, DD+, DTS, DTS-MA)
- Balanced Analog Out (2CH PCM)
- Driver Support for Crestron, C4, RTI, ELAN and more
- Extracted Audio Supports DD+, DTS Master Audio on Toslink
- Extracted Audio bound to output 1 or 2
- AVR Mirror Mode - Mirrored Outputs

Easy to use:

- Install in seconds
- Feature rich
- Powerful EDID management
- Front Panel Control
- IR Remote
- IR & RS-232 Control
- LAN Control

In The Box:

- AC-MX82-AUHD or AC-MX82-AUHD-RM Matrix Switch
- IR Remote Control
- 12V Locking Power Supply
- 3-Pin Terminal Block
- Mounting Ears

Quick Installation:

1. Connect the HDMI input sources (Blu-ray, Set Top Box, etc...) to the AC-MX82-AUHD.
2. Connect the HDMI output devices (AVR, Display, Distribution Amplifier, Extender) to the AC-MX82-AUHD.
3. Power on the sources.
4. Connect the power supply into the AC-MX82-AUHD.
5. Turn on output devices/displays.
6. Use the front panel controls, supplied IR remote or free LAN (IP: 192.168.001.239) to control the matrix.

AVProedge

VIDEO:	
VIDEO RESOLUTIONS	UP TO 4K 60HZ 4:4:4
VESA RESOLUTIONS	UP TO DCI 4K (4096X2160) 5K (UP TO 5120X3200)
HDR FORMATS/RESOLUTIONS	420, 422, 444 (10 AND 12 DEEP COLOR) HDR10, HDR10+, DOLBY VISION, HLG
COLOR SPACE	YUV (COMPONENT), RGB (CSC: REC. 601, REC. 709, BT2020, DCI, P3 D6500)
CHROMA SUBSAMPELING	4:4:4, 4:2:2, 4:2:0 SUPPORTED
DEEP COLOR	UP TO 16 BIT (1080), UP TO 12 BIT (4K)
AUDIO:	
AUDIO FORMATS SUPPORTED HDMI	PCM 2.0 CH, LPCM 5.1 & 7.1, DOLBY DIGTAL, DTS 5.1, DOLBY DIGITAL PLUS, DOLBY TRUEHD, DTS-HD MASTER AUDIO, DTS-X, DOLBY ATMOS
AUDIO FORMATS SUPPORTED EXTRACTED (TOSLINK)	PCM 2.0 CH, LPCM 6 CH, LPCM 7 CH, DOLBY DIGITAL, DOLBY DIGITAL PLUS, DTS- MASTER AUDIO
AUDIO FORMATS SUPPORTED EXTRACTED (2CH PORT)	PCM 2 CH
AUDIO EXTRACTION LOCATION	FOLLOWS OUTPUT (SELECTABLE)
DISTANCE:	
HDMI IN/OUT (4K60 4:4:4)	UP TO 50 FEET (USING BULLET TRAIN HDMI)
HDMI IN/OUT (W/ AOC CABLE) (4K60 4:4:4)	UP TO 130 FEET (USING BULLET TRAIN AOC)
OTHER:	
BANDWIDTH	18 GBPS
HDCP	HDCP 2.2AND EARLIER
CONTROL:	
PORTS	LAN, RS232, IR WINDOW
DRIVERS	C4, RTI, ELAN, CRESTRON, URC (FOR MORE INFORMATION - SEE DRIVERS PAGE ON AVPROEDGE.COM/DRIVERS
LAN WEBOS	YES
PORTS:	
HDMI	TYPE A
LAN	RJ45 W/ WEB INTERFACE/ CONTROL
AUDIO (EXTRACTED DIGITAL)	TOSLINK
AUDIO (EXTRACTED ANALOG)	L/R AUDIO
IR RX	WINDOW ONLY (REMOTE INCLUDED)
RS232	3 PIN TERMINAL BLOCK
ENVIRONMENTAL:	
OPERATING TEMPRATURE	23 TO 125°F (-5 TO 51°C)
STORAGE TEMPERATURE	-4 TO 140°F (-20 TO 60°C)
HUMIDITY RANGE	5-90% RH (NO CONDENSATION)
POWER:	
POWER CONSUMPTION (TOTAL)	12 WATTS MAX
POWER SUPPLY - MATRIX	INPUT: AC 100-240V ~ 50/60HZ OUTPUT: DC 12V 2A
DIMENSIONS:	
DIMENSIONS (UNIT ONLY - HEIGHT/DEPTH/WIDTH)	MM: 33.54 X 111.12 X 28.98 INCH: 1.32 X 4.37 X 11.06
DIMENSIONS (PACKAGED HEIGHT/DEPTH/WIDTH)	MM: 93.73 X 222.25 X 393.7 INCH: 3.69 X 8.75 X 15.5
WEIGHT (UNIT)	1.8 LBS (.82 KG)
WEIGHT (PACKAGED)	3 LBS (1.36 KG)
DIMENSIONS - RACK MOUNTABLE VERSION (UNIT ONLY - HEIGHT/DEPTH/WIDTH)	MM: 20.5 X 94 X 232.98 INCH: .9 X 3.7 X 9.17
DIMENSIONS - RACK MOUNTABLE VERSION (PACKAGED HEIGHT/DEPTH/WIDTH)	MM: 86.61 X 171.45 X 482.6 INCH: 3.41 X 6.75 X 19
WEIGHT (UNIT) - RACK MOUNTABLE VERSION	3.2 LBS (1.45 KG)
WEIGHT (PACKAGED) - RACK MOUNTABLE VERSION	4.4 LBS (2 KG)
*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. MASS & DIMENSIONS ARE APPROXIMATE	

Device Overview:

- Definition - Matrix switches provide the ability to route any input to any output or to multiple outputs at any time. Depending on the model, a matrix switch can route HD, UHD or AUHD content in this manner. Additionally, since most venues have both, audio zones and video zones, the requirement to breakout or strip off the audio is often necessary and has become almost a standard feature on most matrix switches.

- Control – Matrix switches are generally controlled via a third-party controller (like Control 4, RTI, Crestron, etc...). Many integrators want ready-made drivers for their control system in order to make programming and deployment easier.

- Matrix Switches are widely used in both, Commercial and Residential Applications.

Front Panel Control:

- "OUT 1 SELECT" - Toggles the active source for OUTPUT 1
- "OUT 2 SELECT" - Toggles the active source for OUTPUT 2
- "AUDIO OUTPUT SELECT" - Toggles which OUTPUT the extracted audio follows (2CH & Toslink are mirrored)
- "OUT 1 SCALER SELECT" - Toggles (On/Off) the output scaler for OUTPUT 1
  - ON - Signal will be scaled to 1080P
  - OFF - Scaler is disabled
- Enable/Disable "Auto-Switching" - Simply PRESS & HOLD the OUTPUT SELECT button for 4 seconds to toggle "Auto-Switching"
  - When the LED is flashing "Auto-Switching" is enabled.
  - You can enable only one output to auto switch, or both - when both are enabled, they will be mirrored.
- AVR Mirror Mode - When enabled both outputs will be mirrored and switch regardless of the command sent
  - PRESS & HOLD OUTPUT 2 SELECT and AUDIO OUTPUT SELECT buttons for 5 seconds to Enable/Disable
  - All 4 Red LEDs will flash, both outputs are now mirrored and will switch together when an output command is sent to output 1 or output 2.
- EDID is ideally set from the Web Interface, but can be set from the front panel - see EDID section of manual

Rear Panel Overview:

- Default IP Address is 192.168.001.239
- Audio Outputs are mirrored, and can follow one output
  - SPIDIF Toslink supports PCM, LPCM (up to 7CH), Dolby Digital, Dolby Digital Plus, DTS, DTS-HD, DTS Master Audio
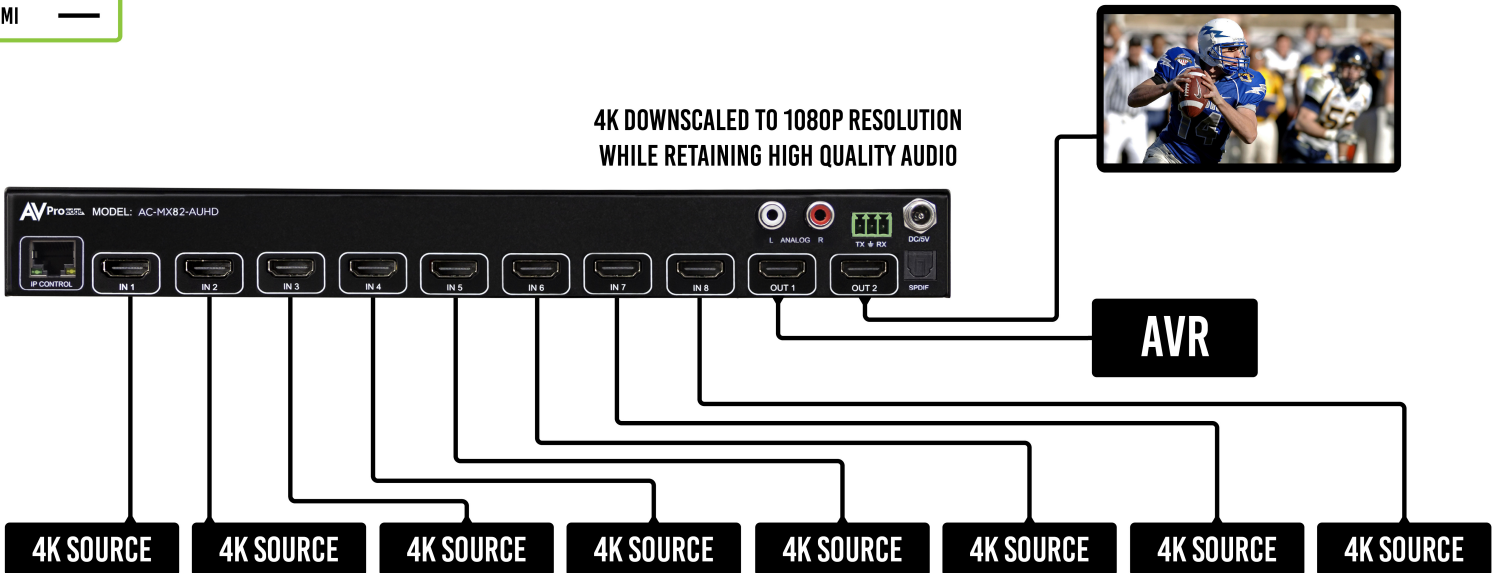 - Analog supports only 2CH PCM. *If a higher codec is coming in, it will be silent (Only Toslink will work)*

CONNECTION DIAGRAM
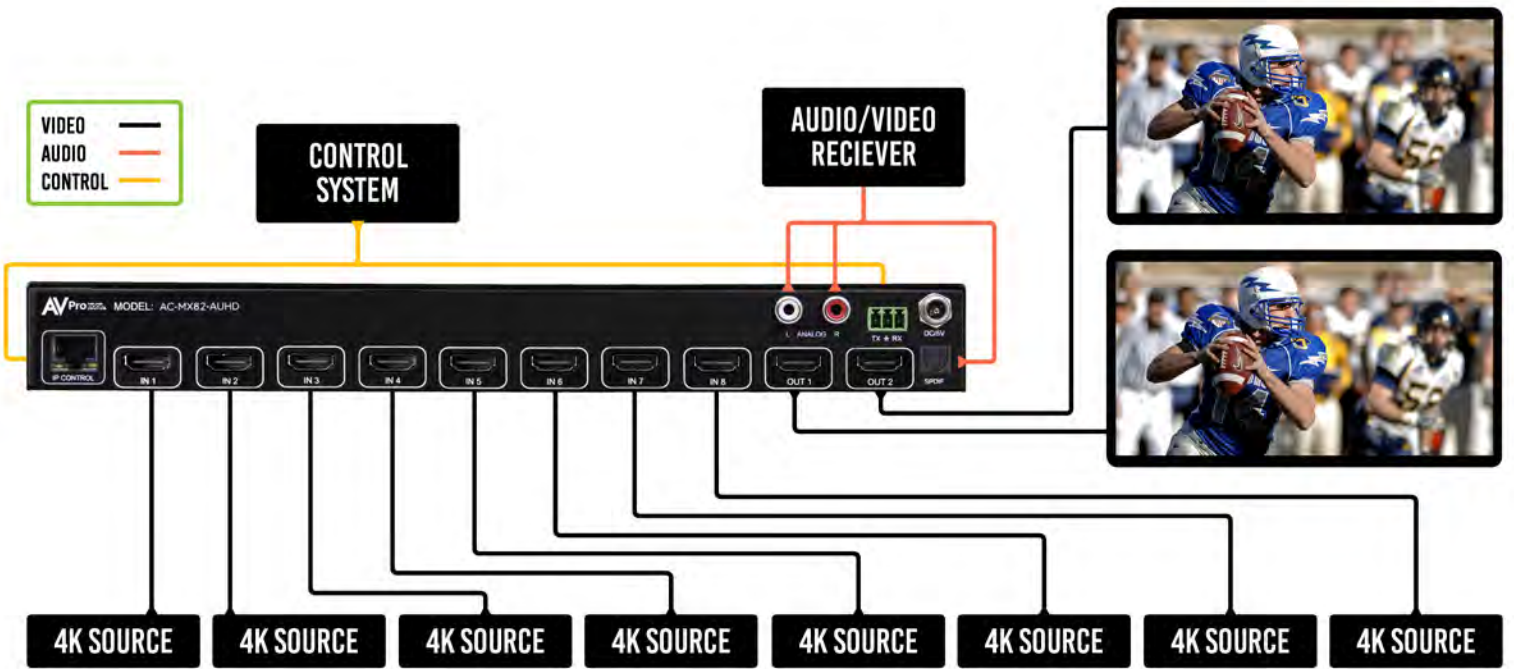
AVR BYPASS

4K DOWNSCALED TO 1080P RESOLUTION
WHILE RETAINING HIGH QUALITY AUDIO

Auto Switching Logic:

When the AC-MX82-AUHD is in "Auto" mode the logic is to switch to the most recently plugged in device based on a Hot Plug Event. You can have either HDMI OUTPUT set on auto individually or they can both be on together.

See examples:

1. When a new source device (like a PC) is plugged into the AC-MX82-AUHD, it automatically switches to that input.

2. When an active source device is disconnected, the AC-MX82-AUHD is automatically switched back to the last source plugged in before it (so long as it is still active). It will continue to backtrack until it finds an active source. If no active source is found it will stop searching after one cycle.

3. If you are collaborating and a PC is connected, when a new PC is plugged into the matrix it will activate the new input on the outputs that are set to "Auto" - You can override by pressing the front panel, or sending a remote serial or LAN command as well.

Audio Output Logic:

You can extract audio from toslink or balance 2CH Audio. Audio outputs are an un-decoded output. This means that what goes in, is what goes out.

1. 2CH Analog Port - Supports 2CH PCM audio only, which is ideal for 2 Channel systems and zoned audio systems.

2. Toslink Audio Port - Supports PCM, LPCM (up to 7CH), Dolby Digital, Dolby Digital Plus, DTS, DTS-HD, DTS Master Audio, which is ideal for multi-channel audio systems and older AVR's that do not support 18Gbps.

3. Need to down-mix for combination, uncompressed and 2CH systems? Check out the AC-ADM-AUHD and AC-ADM-COTO

4. NOTE - The 2CH Analog port and the Toslink port are mirrored. If the audio codec coming into the AC-MX82-AUHD is above 2-Channel, the Analog port will be silent, however the audio will still come out of Toslink.

Factory Reset:

There is an easy way to reset all settings on this unit. It is especially useful if a static IP is set and the network changes, you can reset it.

To preform a factory reset:

- Press and hold both "Audio Select" and "Output 1 Scaler Select" buttons for 5 seconds. All LEDs will flash one time indicating it is complete. All settings will now be reset including the IP address back to 192.168.001.239

EDID Management:

The BEST/EASIEST WAY to setup EDID's is to use the web interface. However, we know that may not always be an option. Since there is no screen on the device, you will have to rely on the LED's to complete EDID setup. Please follow the steps below (This might take one or two tries to get used too.)

1. Press and hold both "Out 1" and "Out 2" buttons for 5 seconds.
   a. All LED flash one time. You are now in EDID management state.

2. In the EDID management state, press the "Out 1" button to toggle to the input you want to set the EDID for. (1=IN1, 2=IN2, 3=IN3, 4=IN4)

3. Press the "Out 2" button to toggle through the EDID index.

4. Once you land on the EDID you want to use, press and hold the "Out 2" button for 3 seconds. All LEDs will flash one time indicating success

5. NOTE: When in the EDID management state, if you are inactive for 10 seconds it will return to the normal state automatically. All LEDs flash one time.

6. NOTE 2: We have a video available online or upon request if desired. Contact us or request at support.avproedge.com

Use the chart below to pick your EDID:

AC-MX82-AUHD FRONT PANEL EDID SETTINGS

The LED Status : 0(OFF) 1(ON)

LED / Number	OUT2 IN1	OUT2 IN2	OUT2 IN3	OUT2 IN4	OUT2 IN5	OUT2 IN6	EDID
Input1~Input6(HDMI1, HDMI2, HDMI3, HDMI4, HDMI5, HDMI6) EDID Settings(Output2[IN1][IN2][IN3][IN4][IN5][IN6 LED)							
0	0	0	0	0	0	0	0:1080P_2CH(PCM)
1	1	0	0	0	0	0	1:1080P_6CH
2	0	1	0	0	0	0	2:1080P_8CH
3	1	1	0	0	0	0	3:1080P_3D_2CH(PCM)
4	0	0	1	0	0	0	4:1080P_3D_6CH
5	1	0	1	0	0	0	5:1080P_3D_8CH
6	0	1	1	0	0	0	6:4K30Hz_3D_2CH(PCM)
7	1	1	1	0	0	0	7:4K30HZ_3D_6CH
8	0	0	0	1	0	0	8:4K30HZ_3D_8CH
9	1	0	0	1	0	0	9:4K60Hz(Y420)_3D_2CH(PCM)
10	0	1	0	1	0	0	10:4K60Hz(Y420)_3D_6CH
11	1	1	0	1	0	0	11:4K60Hz(Y420)_3D_8CH
12	0	0	1	1	0	0	12:4K60HZ_3D_2CH
13	1	0	1	1	0	0	13:4K60HZ_3D_6CH
14	0	1	1	1	0	0	14:4K60HZ_3D_8CH
15	1	1	1	1	0	0	15:1080P_2CH(PCM)_HDR
16	0	0	0	0	1	0	16:1080P_6CH_HDR
17	1	0	0	0	1	0	17:1080P_8CH_HDR
18	0	1	0	0	1	0	18:1080P_3D_2CH(PCM)_HDR
19	1	1	0	0	1	0	19:1080P_3D_6CH_HDR
20	0	0	1	0	1	0	20:1080P_3D_8CH_HDR
21	1	0	1	0	1	0	21:4K30Hz_3D_2CH(PCM)_HDR
22	0	1	1	0	1	0	22:4K30Hz_3D_6CH_HDR
23	1	1	1	0	1	0	23:4K30Hz_3D_8CH_HDR
24	0	0	0	1	1	0	24:4K60Hz(Y420)_3D_2CH(PCM)_HDR
25	1	0	0	1	1	0	25:4K60Hz(Y420)_3D_6CH_HDR
26	0	1	0	1	1	0	26:4K60Hz(Y420)_3D_8CH_HDR
27	1	1	0	1	1	0	27:4K60Hz_3D_2CH(PCM)_HDR
28	0	0	1	1	1	0	28:4K60Hz_3D_6CH_HDR
29	1	0	1	1	1	0	29:4K60Hz_3D_8CH_HDR
30	0	1	1	1	1	0	30:USER1_EDID
31	1	1	1	1	1	0	31:USER2_EDID
32	0	0	0	0	0	1	32:USER3_EDID
33	1	0	0	0	0	1	33:Copy Output1 EDID To Input
34	0	1	0	0	0	1	34:Copy Output2 EDID To Input

Web Interface

Default IP = 192.168.001.239

Sense Switch:

Use this area to route inputs to outputs

HDMI Auto Switch:

Use this to turn the HDMI Auto Switch Feature ON/OFF per output.

Video Scaler Mode:

This will set the scaler mode for OUTPUT 1, the options are:
- **BP** = Bypass - Scaler is disabled (Default)
- **4K-2K** = 1080P - If incoming signal is 4K, it will be downscaled to 1080P or 1900x1200 depending on the input format.

Audio Status:

Enable or Disable extracted Audio, the options are:

- **ON** = Extracted audio ports are ON (Default)
- **OFF**= Extracted audio ports are muted.

Audio Status
ON   OFF

AudioBinding:

Bind the audio to a specific OUTPUT. The audio will always follow one output, this means the audio switches with the video of the output you designate, the options are:

- **OUT1** = Extracted audio will follow OUTPUT 1 (Default)
- **OUT 2**= Extracted audio will follow OUTPUT 2

Audio Binding
OUT1   OUT2

EDID Manage:

Using the built-in EDID manager, a multitude of EDID's can be set for each input, and each input can be assigned a different EDID. This should be used to optimize sources or to manage infrastructure.

Click on the Dropdown of the INPUT you would like to set, pick the EDID, then click Apply

EDID Manage		
IN1	4K60HZ 3D 2CH HDR ▼	Apply
IN2	4K60HZ 3D 2CH HDR ▼	Apply
IN3	4K60HZ 3D 2CH HDR ▼	Apply
IN4	4K60HZ 3D 2CH HDR ▼	Apply
IN5	4K60HZ 3D 2CH HDR ▼	Apply
IN6	4K60HZ 3D 2CH HDR ▼	Apply
IN7	4K60HZ 3D 2CH HDR ▼	Apply
IN8	4K60HZ 3D 2CH HDR ▼	Apply

See EDID list on next page

1080P_2CH	1080P_3D_2CH_HDR
1080P_6CH	1080P_3D_6CH_HDR
1080P_8CH	1080P_3D_8CH_HDR
1080P_3D_2CH	4K30HZ_3D_2CH_HDR
1080P_3D_6CH	4K30HZ_3D_6CH_HDR
1080P_3D_8CH	4K30HZ_3D_8CH_HDR
4K30HZ_3D_2CH	4K60HzY420_3D_2CH_HDR
4K30HZ_3D_6CH	4K60HzY420_3D_6CH_HDR
4K30HZ_3D_8CH	4K60HzY420_3D_8CH_HDR
4K60HzY420_3D_2CH	4K60HZ_3D_2CH_HDR
4K60HzY420_3D_6CH	4K60HZ_3D_6CH_HDR
4K60HzY420_3D_8CH	4K60HZ_3D_8CH_HDR
4K60HZ_3D_2CH	User EDID 1
4K60HZ_3D_6CH	User EDID 2
4K60HZ_3D_8CH	User EDID 3
1080P_2CH_HDR	Copy from Out1
1080P_6CH_HDR	Copy from Out2
1080P_8CH_HDR	

Note: To Copy a connected displays EDID, choose Copy From OUTx and click Apply. If successful the EDID will change to User1EDID (this is where it is copied to).

Web Interface: System Settings

IP Settings:

Set network settings such as:

- Static IP
- Subnet Mask
- Router IP
- TCP Port
- Enable DHCP

Port Alias Settings:

Rename inputs and outputs for easy management. Each custom name is limited to eight (8) characters.

IR Control:

For IR Control there is an IR Window
on the front face of the device.

IR EYE

RS-232 and TCP/IP Commands:

The AC-MX82-AUHD can be controlled with either RS-232 or TCP/IP commands. Certain switching or format configurations can only be done using these commands. We recommend using either the MyUART (RS-232 - free) or Hercules (TCP/IP - free) apps as they are very easy to use for sending commands to the machine. MyUART download available on AVProEdge.com/Drivers

OTHER TOOLS & DRIVERS

MyUart Serial Communicator: Used to send direct serial commands to our products.

For TCP/IP control commands use Telnet Port 23.

For RS-232, use a null modem serial cable adapter and set the serial communications to: 57600,n,8,1 (baud: 57600, no parity, 8 data bits and 1 stop bit) with no handshaking.

Please add a return (Enter key) after each command when using direct commands.
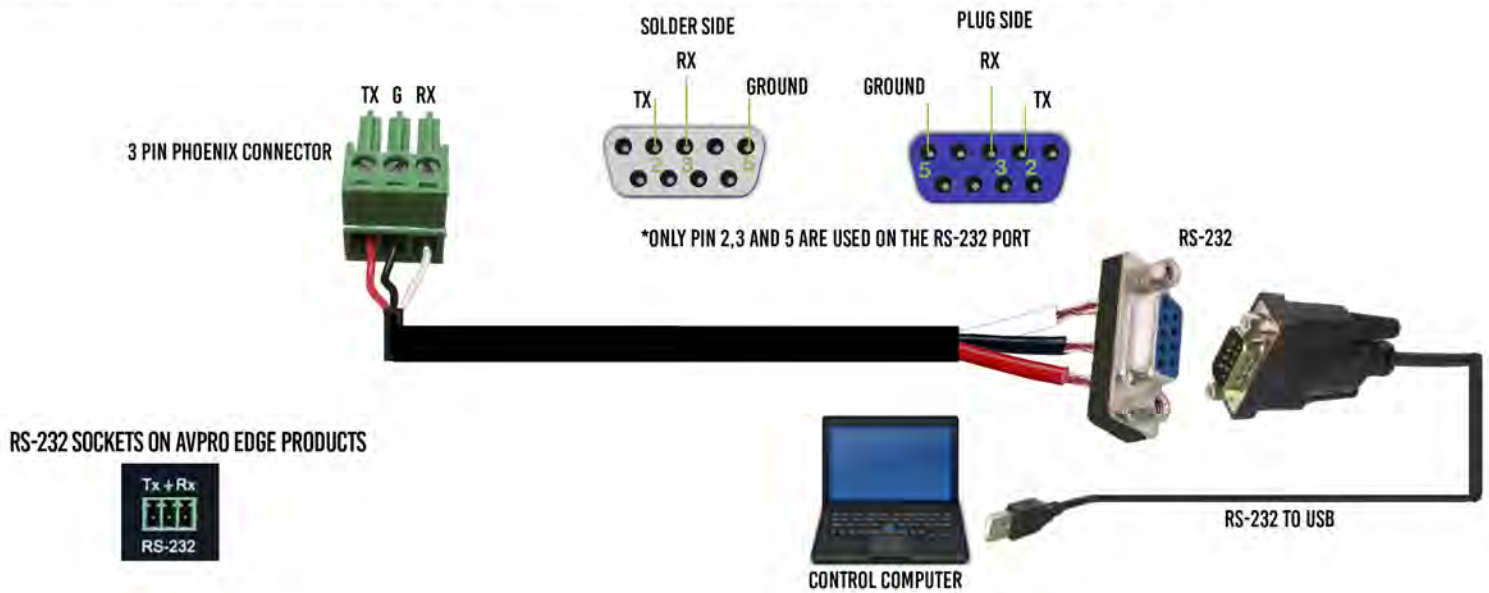
The unified command list (ASCII) is listed below (next page).

=	H	: Help	=
=	STA	: Show Global System Status	=
=	SET RST	: Reset to Factory Defaults	=
=	SET ADDR xx	: Set System Address to xx {xx=[00-99](00=Single)}	=
=	GET ADDR	: Get System Address	=
=	GET STA	: Get System System Status	=
=	GET INx SIG STA	: Get Input x Signal Status{x=[0~4](0=ALL)}	=

=	Output Setup Commands:		=
=	SET OUTx VS INy	: Set Output x To Input y{x=[0-2](0=ALL), y=[1-8]}	=
=	SET OUTx VIDEOy	: Set Output1 VIDEO Mode {y=[1,2](1=Bypass Mode,2=4K->2K)}	=
=	SET EXA BTV OUTx	: Set Ex-Audio Output bind to Outputx{x=[1~2]}	=
=	SET SWITCH MODEx	: Set Switch Mode To Single Switch or Double Switch{x=[0~1]}	=
=	SET OUTx EXA EN/DIS	: Set Ex-Audio Output Enable/Disable{x=[0](0=ALL)}	=
=	SET OUTx STREAM ON/OFF	: Set Output x Stream ON/OFF{x=[0~2](0=ALL)}	=
=	SET OUTx HA MUTE ON/OFF	: Set HDMI Output x Audio Mute ON/OFF{x=[0~2](0=ALL)}	=
=	GET OUTx VS	: Get Output x Video Route{x=[0~2](0=ALL)}	=
=	GET OUTx VIDEO	: Get Output x Video Status{x=[1]}	=
=	GET EXA BTV OUT	: Get Ex-Audio Output bind to Output	=
=	GET SWITCH MODE	: Get Output1 Video Mode	=
=	GET OUTx EXA	: Get Ex-Audio Output Enable/Disable Status{x=[0](0=ALL)}	=
=	GET OUTx EDID DATA	: Get Output x EDID DATA{x=[1~2]}	=
=	GET OUTx STREAM	: Get Output x Stream ON/OFF Status{x=[0~2](0=ALL)}	=
=	GET OUTx HA MUTE	: Get HDMI Output x Audio Mute Status{x=[0~2](0=ALL)}	=

=	Input Setup Commands:	(Note: Input number(x)=HDMI(x),x=1-8)		=
=	SET INx EDID y	: Set Input x EDID{x=[0~8](0=ALL), y=[0~32]}		=
=	0:1080P_2CH(PCM)	1:1080P_6CH	2:1080P_8CH	=
=	3:1080P_3D_2CH(PCM)	4:1080P_3D_6CH	5:1080P_3D_8CH	=
=	6:4k30Hz_3D_2CH(PCM)	7:4k30Hz_3D_6CH	8:4k30Hz_3D_8CH	=
=	9:4K60Hz(Y420)_3D_2CH(PCM)	10:4K60Hz(Y420)_3D_6CH	11:4K60Hz(Y420)_3D_8CH	=
=	12:4K60HZ_3D_2CH	13:4K60HZ_3D_6CH	14:4K60HZ_3D_8CH	=
=	15:1080P_2CH(PCM)_HDR	16:1080P_6CH_HDR	17:1080P_8CH_HDR	=
=	18:1080P_3D_2CH(PCM)_HDR	19:1080P_3D_6CH_HDR	20:1080P_3D_8CH_HDR	=
=	21:4K30Hz_3D_2CH(PCM)_HDR	22:4K30Hz_3D_6CH_HDR	23:4K30Hz_3D_6CH_HDR	=
=	24:4K60Hz(Y420)_3D_2CH(PCM)_HDR	25:4K60Hz(Y420)_3D_6CH_HDR	26:4K60Hz(Y420)_3D_8CH_HDR	=
=	27:4K60Hz_3D_2CH(PCM)_HDR	28:4K60Hz_3D_6CH_HDR	29:4K60Hz_3D_8CH_HDR	=
=	30:USER1_EDID	31:USER2_EDID	32:USER3_EDID	=
=	SET INx EDID CY OUTy	: Copy Output y EDID To Input x(USER1 BUF){x=[0~8](0=ALL), y=[1~2]}		=
=	SET INx EDID Uy DATAz	: Write EDID To User y Buffer of Input x{x=[0~8](0=ALL), y=[1~3],z=[EDID Data]}		=
=	GET INx EDID	: Get Input x EDID Index{x=[0~8](0=ALL)}		=
=	GET INx EDID y DATA	: Get Input x EDID y Data{x=[1~8],y=[0~32]}		=

=	Network Setup Command:	: (xxx=[000-255], zzzz=[0001~9999]	=
=	SET RIP xxx.xxx.xxx.xxx	: Set Route IP Address to xxx.xxx.xxx.xxx	=
=	SET HIP xxx.xxx.xxx.xxx	: Set Host IP Address to xxx.xxx.xxx.xxx	=
=	SET NMK xxx.xxx.xxx.xxx	: Set Net Mask to xxx.xxx.xxx.xxx	=
=	SET TIP zzzz	: Set TCP/IP Port to zzzz	=
=	SET DHCP y	: Set DHCP {y=[0~1](0=Dis,1=Enable)}	=
=	GET RIP	: Get Route IP Address	=
=	GET HIP	: Get Host IP Address	=
=	GET NMK	: Get Net Mask	=
=	GET TIP	: Get TCP/IP Port	=
=	GET DHCP	: Get DHCP Status	=
=	GET MAC	: Get MAC Address	=

=	Auto Mode:		=
=	SET HDx AUTO EN/DIS	: Set HDMI1/HDMI2 Output Enter Auto Mode Control Enable/Disable	=
=		{x=0(HDMI1&HDMI2 Output),x=1(HDMI1 Output),x=2(HDMI2 Output)}	=
=	GET HDx AUTO	: Get HDMI1/HDMI2 Output Auto Mode Control Status	=

=	IR Code Setup:		=
=	SET IR SYS xx.yy	: Set IR System Code {xx=[00~FFH],yy=[00~FFH]}	=
=	SET IR OUTx INy CODE zz	: Set IR Data Code {x=[1~2],y=[1~8],zz=[00~FFH]}	=
=	GET IR SYS	: Get IR System Code	=
=	GET IR OUTx INy CODE	: Get IR Data Code {x=[1~2],y[1~8]}	=

=	Network Setup Command:	: (xxx=[000-255], zzzz=[0001~9999]	=
=	SET RIP xxx.xxx.xxx.xxx	: Set Route IP Address to xxx.xxx.xxx.xxx	=
=	SET HIP xxx.xxx.xxx.xxx	: Set Host IP Address to xxx.xxx.xxx.xxx	=
=	SET NMK xxx.xxx.xxx.xxx	: Set Net Mask to xxx.xxx.xxx.xxx	=
=	SET TIP zzzz	: Set TCP/IP Port to zzzz	=
=	SET DHCP y	: Set DHCP {y=[0~1](0=Dis,1=Enable)}	=
=	GET RIP	: Get Route IP Address	=
=	GET HIP	: Get Host IP Address	=
=	GET NMK	: Get Net Mask	=
=	GET TIP	: Get TCP/IP Port	=
=	GET DHCP	: Get DHCP Status	=
=	GET MAC	: Get MAC Address	=

RS-232 Wiring Diagram:

RS-232 CABLE FOR AVPRO EDGE

IN ORDER TO CONNECT YOUR COMPTER TO THE SWITCH BY RS-232 YOU NEED TO MAKE YOUR OWN CABLE WITH ONE END A PHOENIX CONNECTOR AND THE OTHER END A RS-232 PORT.
YOUR COMPUTER DOESN'T HAVE A RS-232 INPUT, GET A USB CONVERTER (AS SHOWN BELOW), AND PLUG THE USB END TO ANY COMPUTER

TX G RX

3 PIN PHOENIX CONNECTOR

SOLDER SIDE
RX
TX   GROUND

PLUG SIDE
RX
GROUND   TX

*ONLY PIN 2,3 AND 5 ARE USED ON THE RS-232 PORT

RS-232

RS-232 SOCKETS ON AVPRO EDGE PRODUCTS

Tx + Rx
RS-232

RS-232 TO USB

CONTROL COMPUTER

▪ Maintenance

To ensure reliable operation of this product as well as protecting the safety of any person using or handling this device while powered, please observe the following instructions.

- Use the power supplies provided. If an alternate supply is required, check voltage, polarity and that it has sufficient power to supply the device it is connected to.
- Do not operate these products outside the specified temperature and humidity range given in the above specifications.
- Ensure there is adequate ventilation to allow this product to operate efficiently.
- Repair of the equipment should only be carried out by qualified professionals as these products contain sensitive components that may be damaged by any mistreatment.
- Only use this product in a dry environment. Do not allow any liquids or harmful chemicals to come into contact with these products.
- Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

▪ Damage Requiring Service

The unit should be serviced by qualified service personnel if:

- The DC power supply cord or AC adaptor has been damaged
- Objects or liquids have gotten into the unit
- The unit has been exposed to rain
- The unit does not operate normally or exhibits a marked change in performance
- The unit has been dropped or the housing damaged

▪ Support

Should you experience any problems while using this product, first, refer to the Troubleshooting section of this manual before contacting Technical Support. When calling, the following information should be provided:

- Product name and model number
- Product serial number
- Details of the issue and any conditions under which the issue is occurring

▪ Warranty

If your product does not work properly because of a defect in materials or workmanship, AVProEdge (referred to as "the warrantor") will, for the length of the period indicated as below, (Parts/Labor (10) Years), which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor. During the "Labor" Limited Warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

This warranty extends to products purchased directly from AVPro or an authorized dealer. AVPro is not liable to honor this warranty if the product has been used in any application other than that for which it was intended, has been subjected to misuse, accidental damage, modification or improper installation procedures, unauthorized repairs or is outside of the warranty period. Please direct any questions or issues you may have to your local dealer before contacting AVPro.

▪ Troubleshooting

- Verify Power - The LEDs on the front of the matrix should be lit up when power is applied. Check power supply connections to device and power
- Verify Connections - Check all cables are properly connected
- Issues with one INPUT/OUTPUT - Swap ports to see if the issue stays with the port or with the device
  - Follows the device, then it may be an EDID issue. Default out of the box is a 4K60 3D 2ch HDR. Try another canned EDID - Pg.8, 10, and 11
  - Try another canned EDID or use the COPY FROM OUTx command to copy the connected devices EDID - Pg.8, 10, and 11
- Issues with 4k but 1080 or less working
  - Verify all connected devices and ports are capable of the signal you are sending

TYPE	RESOLUTION	FRAME RATE (FPS)	COLOUR COMPRESSION	DEEP COLOUR BIT DEPTH	HDR	WIDE COLOR GAMUT (BT2020)	HDMI VERSION	DATA RATE	AUHD SERIES	444 SERIES	UHD SERIES
HD	1920x1080	24	4:2:2	8 BIT	NO	NO	1.4	0.75 GBPS	YES	YES	YES
HD	1920x1080	60	4:2:2	8 BIT	NO	NO	1.4	4.45 GBPS	YES	YES	YES
HD	1920x1080	60	4:4:4	16 BIT	NO	NO	1.4	5.91 GBPS	YES	YES	YES
UHD	3840x2160	24	4:2:0	8 BIT	NO	NO	1.4	8.91 GBPS	YES	YES	YES
UHD	3840x2160	24	4:4:4	8 BIT	NO	NO	1.4	8.91 GBPS	YES	YES	YES
4K	4096x2160	24	4:4:4	8 BIT	NO	NO	1.4	8.91 GBPS	YES	YES	YES
UHD OR 4K	3840x2160	60	4:2:0	8 BIT	NO	NO	1.4/2.0	8.91 GBPS	YES	YES	YES
LINE OF INNOVATION											
UHD OR 4K	3840x2160	24	4:2:0	10 BIT	YES	YES	2.0(A/B)	8.91 GBPS	YES	YES	YES
UHD OR 4K	3840x2160	24	4:2:2	12 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	24	4:4:4	10 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	24	4:4:4	12 BIT	YES	YES	2.0(A/B)	13.37 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	60	4:2:0	10 BIT	YES	YES	2.0(A/B)	11.14 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	60	4:2:0	12 BIT	YES	YES	2.0(A/B)	13.37 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	60	4:2:2	12 BIT	YES	YES	2.0(A/B)	17.82 GBPS	YES	YES	NO
UHD OR 4K	3840x2160	60	4:4:4	8 BIT	YES	YES	2.0(A/B)	17.82 GBPS	YES	YES	NO

Thank you for choosing AVProEdge!

Please contact us with any questions. We are happy to be of service!