

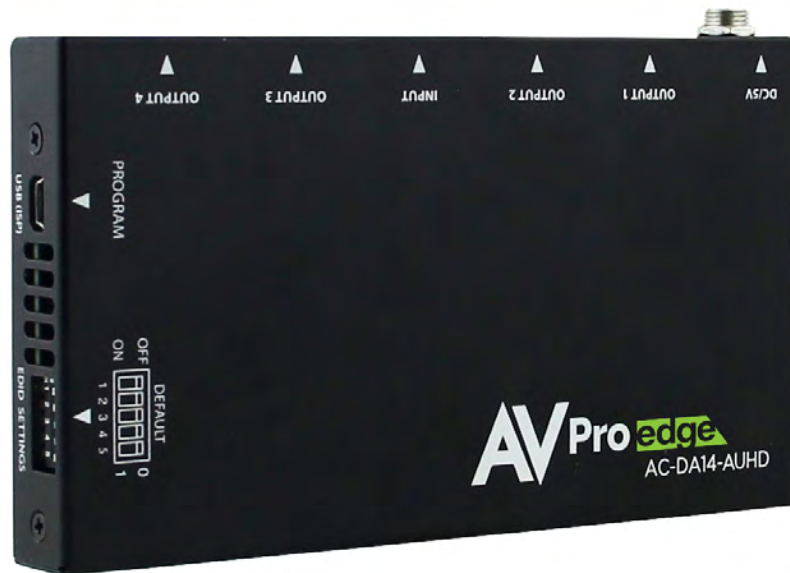
# User Manual

## AC-DA14-AUHD

A full 4K60 4:4:4 (Up to 18GBPS)

Distribution Amplifier with advanced EDID management

\* Available in 1x2, 1x4, and 1x8



## Introduction

AC-DA14-AUHD is an 18GBPS, full bandwidth HDMI2.0a (HDR) with HDCP2.2 four-way HDMI splitter. Functionally, distributes the input HDMI signal to four identical HDMI outputs. These four outputs are synchronized.

AC-DA14-AUHD has the ability of pre-emphasis and equalization. Multiple cascaded AC-DA14-AUHD achieves long distance transmission of HDMI signal of more than 15 meters even in 4K (HDR) resolution.

AC-DA14-AUHD offers solutions for usage as a component of digital HDMI distributions and entertainment systems also UHDTV/4K retail and general show sites. Use in conjunction with UHDTV, UHD Projector, STB, UHD-BD, UHD Media Player and in environment where noise, space and security are concerns. Fits perfectly in data center control rooms, information distribution premises, conference and presentation rooms, school educational facilities and corporate training environments.

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# Full 4K 60 (4:4:4) HDMI Splitter & Distribution Amplifier

## ■ Product Overview ( Model Number: AC-DA14-AUHD)



## ■ Features

- Easy to Use: Install in seconds, no need for setting.
- Distribution: One HDMI input, four identical HDMI outputs.
- Supports up to 18GBPS with resolutions of 4K60(YUV444), 4K30, 1080p, 1080i, 720p and other standard Video formats, PAL and NTSC.
- Customer can configure EDID function to enable the best compatibility.
- Supports HDCP2.2
- HDMI 2.0(a) w/ HDR.
- Mounting ears are included for easy fixation on wall, furniture or ceiling.

? Notice AVProEdge reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

**Warning**

To reduce the risk of fire, electric shock or product damage:

- |  |   |  |  |
|--|---|--|--|
|  | <p>1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.</p>                 |  | <p>6. Clean this apparatus only with dry cloth.</p>  |
|  | <p>2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.</p>   |  | <p>7. Unplug this apparatus during lightning storms or when unused for long periods of time.</p> |
|  | <p>3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.</p> |  | <p>8. Protect the power cord from being walked on or pinched particularly at plugs.</p>          |
|  | <p>4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.</p>                                    |  | <p>9. Only use attachments / accessories specified by the manufacturer.</p>                      |



## ■ Package Contents

- ① Main unit. P/N: AC-DA14-AUHD
- ② 5VDC Power Supply.
- ③ Mounting Brackets

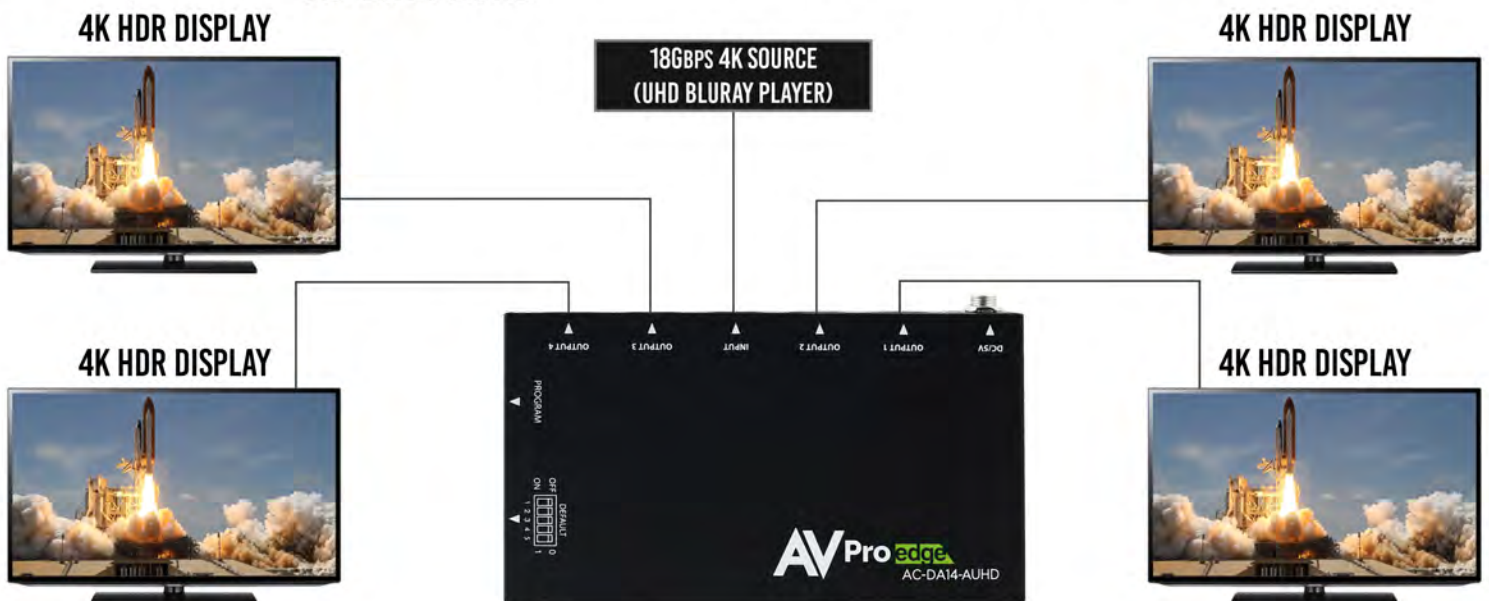
## ■ Connections and Operations

- 1) Connect the HDMI input source into AC-DA14-AUHD
- 2) Connect the HDMI output equipment (Displays) into AC-DA14-AUHD
- 3) Insert the DC side of 5v power supply into AC-DA14-AUHD and then connect the AC side of the Power supply into the wall outlet.
- 4) Plugging in the unit automatically powers up the device.

**NOTE:** Insert / Extract cables gently.

AC-DA14-AUHD

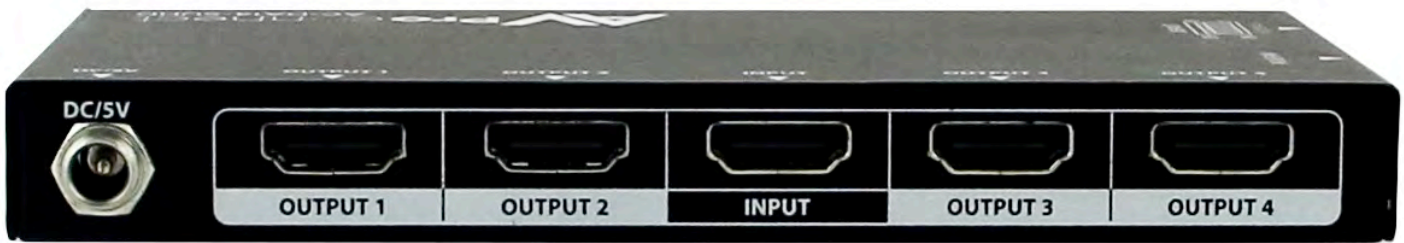
# CONNECTION DIAGRAM



## ■ Specifications

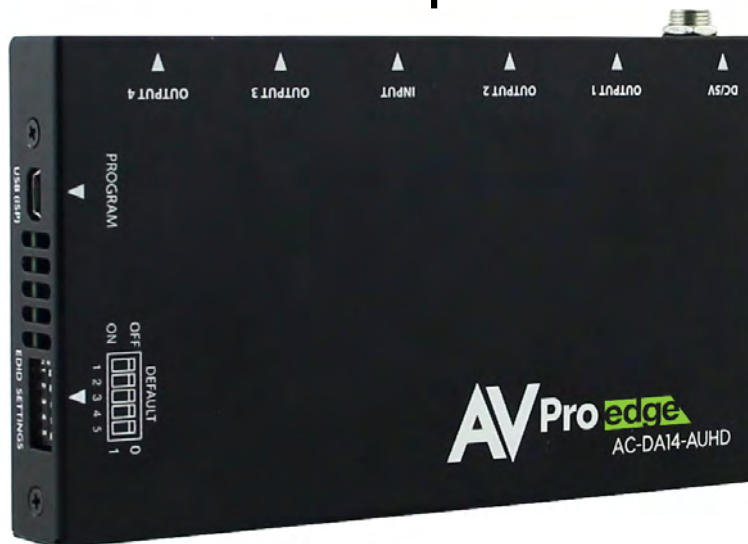
<b>VIDEO:</b>	
VIDEO RESOLUTIONS	UP TO 4K 60HZ 4:4:4
VESA RESOLUTIONS	UP TO DCI 4K (4096X2160) 5K (UP TO 5120X3200)
HDR FORMATS/RESOLUTIONS	420, 422, 444 (10 AND 12 DEEP COLOR) HDR10, HDR10+, DOLBY VISION, HLG
COLOR SPACE	YUV (COMPONENT), RGB (CSC: REC. 601, REC. 709, BT2020, DCI, P3 D6500)
CHROMA SUBSAMPLING	4:4:4, 4:2:2, 4:2:0 SUPPORTED
DEEP COLOR	UP TO 16 BIT (1080P) UP TO 12 BIT (4K)
<b>AUDIO:</b>	
AUDIO FORMATS SUPPORTED HDMI	PCM 2.0 CH, LPCM 5.1 & 7.1, DOLBY DIGITAL, DTS 5.1, DOLBY DIGITAL PLUS, DOLBY TRUEHD, DTS-HD MASTER AUDIO, DTS-X, DOLBY ATMOS
<b>DISTANCE:</b>	
DISTANCE 1080P	UP TO 50 FEET (USING BULLET TRAIN HDMI)
DISTANCE 4K & HDR	UP TO 130 FEET (USING BULLET TRAIN AOC)
<b>OTHER:</b>	
BANDWIDTH	18 GBPS
HDCP	HDCP 2.2 AND EARLIER
<b>PORTS:</b>	
HDMI	TYPE A
FIRMWARE	MINI USB
<b>ENVIRONMENTAL:</b>	
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)
<b>POWER:</b>	
POWER CONSUMPTION (TOTAL)	4 WATTS MAX
POWER SUPPLY	INPUT: AC 100-240V ~ 50/60HZ OUTPUT: DC 5V 2A
<b>DIMENSIONS:</b>	
DIMENSIONS (SINGLE UNIT ONLY, TX OR RX ARE SAME) (LENGTH/WIDTH/HEIGHT) (TX OR RX EACH ALONE)	MM: 16.764 X 85.725 X 14.526 INCH: .66 X 3.375 X 5.69
DIMENSIONS (PACKAGED LENGTH/WIDTH/HEIGHT) (KIT)	MM: 76.2 X 180.975 X 304.8 INCH: 3 X 7.125 X 12
WEIGHT (UNIT)	0.57LBS (0.26KG)
WEIGHT (PACKAGED)	1.21LBS (0.55KG)
<b>*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. MASS &amp; DIMENSIONS ARE APPROXIMATE</b>	

## Back Panel



- ① Power input.
- ② HDMI input.
- ③ HDMI outputs (x4).

## Device Top Cover



Device cover is labeled for DIP Switch (EDID setting) and ISP mini USB port and for easy HDMI port recognition especially useful when Mounting Ears are used for fixation.

 **NOTE:** DIP Switch EDID setting index on next page.



**EDID Settings:** The 5 DIP switches are located on the side of the device, and each switch has two settings, 0 & 1 (UP=0, DOWN=1). The default mode is “00000” which is all up, in this mode the device copies the EDID from the sink (display) plugged into OUTPUT 1.



**EDID DIP Settings:**

00000: EDID COPY (See NOTE 1)	10000: 1080P_2CH(PCM)_HDR
00001: 1080P_2CH(PCM)	10001: 1080P_6CH_HDR
00010: 1080P_6CH	10010: 1080P_8CH_HDR
00011: 1080P_8CH	10011: 1080P_3D_2CH(PCM)_HDR
00100: 1080P_3D_2CH(PCM)	10100: 1080P_3D_6CH_HDR
00101: 1080P_3D_6CH	10101: 1080P_3D_8CH_HDR
00110: 1080P_3D_8CH	10110: 4K30Hz_3D_2CH(PCM)_HDR
00111: 4K30Hz_3D_2CH(PCM)	10111: 4K30Hz_3D_6CH_HDR
01000: 4K30Hz_3D_6CH	11000: 4K30Hz_3D_8CH_HDR
01001: 4K30Hz_3D_8CH	11001: 4K60Hz(Y420)_3D_2CH(PCM)_HDR
01010: 4K60Hz(Y420)_3D_2CH(PCM)	11010: 4K60Hz(Y420)_3D_6CH_HDR
01011: 4K60Hz(Y420)_3D_6CH	11011: 4K60Hz(Y420)_3D_8CH_HDR
01100: 4K60Hz(Y420)_3D_8CH	11100: 4K60Hz_3D_2CH(PCM)_HDR
01101: 4K60Hz_3D_2CH(PCM)	11101: 4K60Hz_3D_6CH_HDR
01110: 4K60Hz_3D_6CH	11110: 4K60Hz_3D_8CH_HDR
01111: 4K60Hz_3D_8CH	11111: Passthrough

When Changing EDIDs, please follow the steps below

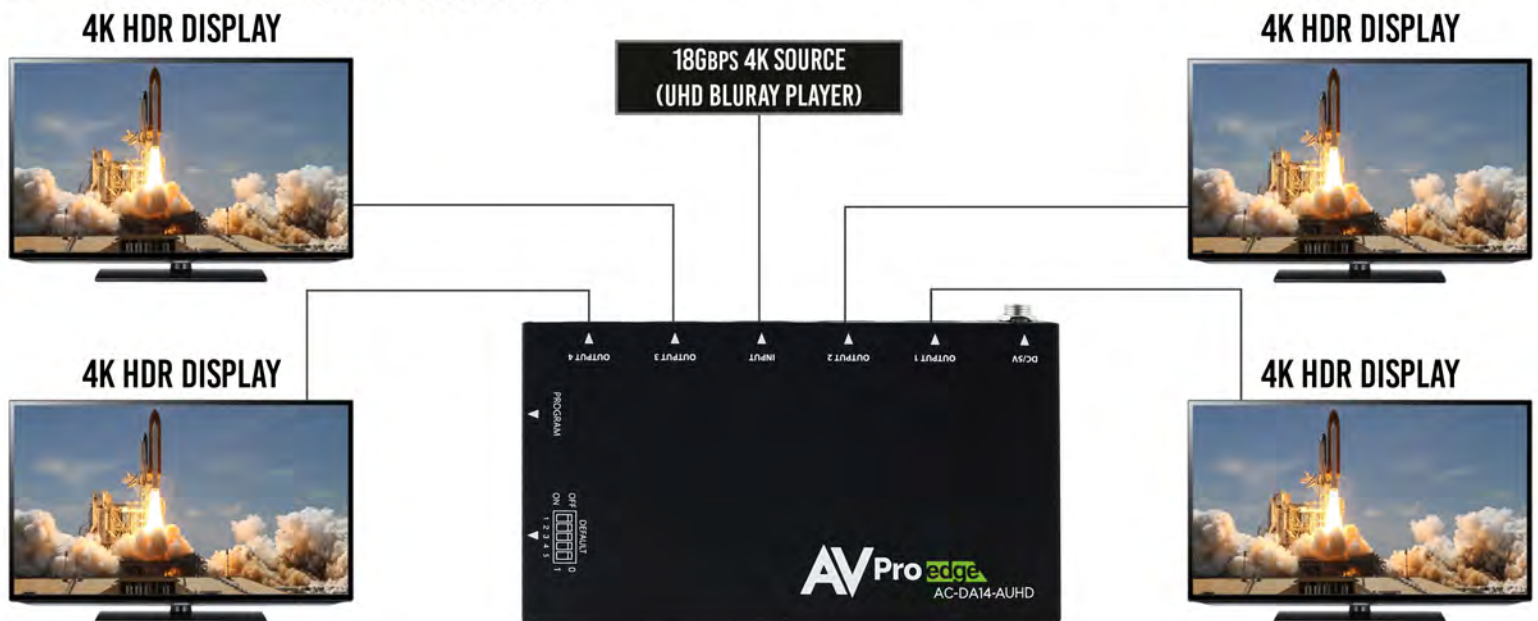
1. Start with power off
2. Set DIP to '00000' (all up).
3. Power on the unit
4. Power on the source device and connect the HDMI input port.

**Note1:** EDID Copy mode: EDID will be copied from sink on OUTPUT 1. The AC-DA14-AUHD is set this way by default for maximum "Plug & Play" Compatibility. If you change sink (Display) plugged into OUTPUT 1, please follow the steps below if you wish to use the new sink's EDID.

1. Start with power off
2. Set DIP to '00000' (all up).
3. Power on the unit
4. Power on the source device and connect the HDMI input port.



# CONNECTION DIAGRAM



=	-----	=
=	System HELP	=
=		=
=	Azz : All Commands start by Prefix System Address zz, if [01~99]	=
=	-----	=
=	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=[1]}	=
=	-----	=
=	Output Setup Commands: : (Note: Output number (x)-HDMI(x),x=1-4)	=
=	SET OUTx STREAM ON/OFF : Set Output x Stream ON/OFF{x=[0~4](0=ALL)}	=
=	GET OUTx EDID DATA : Get Output x EDID DATA{x=[1~4]}	=
=	GET OUTx STREAM : Get Output x Stream ON/OFF Status{x=[0~4](0=ALL)}	=
=	-----	=

## ▪ 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 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

The unit should be serviced by qualified service personnel if:

## ■ 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 - Front Panel Pg.8
  - Try power-cycling the device while all cables are connected
- Verify Connections - Front Panel Pg.8
  - If the lights are not showing a connection, try Hot Plugging the cable (remove and re-insert while powered up)
- Possible EDID issue. Default out of the box is EDID Copy from downstream device. Try one of the Canned EDIDs built in - Pg.10
- Lights showing correct connecting but still no picture. Try the last EDID option (all down), this will force what ever signal is going in, out - Pg.11
- 1080p signal working but not 4k - Verify all connected devices are 4k capable.
- Still having issues, contact us
  - Support Direct +1-605-977-3477
  - All inquiries +1-605-274-6055
  - Submit a support request ticket
    - <https://support.avproedge.com/hc/en-us/requests/new>

Thank you for choosing AVProEdge!

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



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