AV Pro edge

User Manual

AC-DA18-AUHD

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

Distribution Amplifier with advanced EDID management

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

Introduction

AC-DA18-AUHD is an 18GBPS, full bandwidth HDMI2.0a (HDR) with HDCP2.2 eight-way HDMI splitter. Functionally, distributes the input HDMI signal to four identical HDMI outputs. These four outputs are synchronized.

AC-DA18-AUHD has the ability of pre-emphasis and equalization. Multiple cascaded AC-DA18-AUHD achieves long distance transmission of HDMI signal of more than 15 meters even in 4K (HDR) resolution.

The outstanding and proprietary clock jitter cleaner enable this splitter to out preform the competition when in cascading mode no matter the signal is 4K or 1080P.

AC-DA18-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.

Contents

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

■ **Product Overview** (Model Number: AC-DA18-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:

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.

6. Clean this apparatus only with dry cloth.

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.

7. Unplug this apparatus during lightning storms or when unused for long periods of time.

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.

8. Protect the power cord from being walked on or pinched particularly at plugs.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Only use attachments / accessories specified by the manufacturer.

5. Do not place sources of naked flames, such as lighted candles, on the unit.

10. Refer all servicing to qualified service personnel.

AC-DA18-AUHD

■ Package Contents

① Main unit. P/N: AC-DA18-AUHD

② 12VDC Power Supply.

③ Operating Instructions. (Digital @ www.avproedge.com)

④ Mounting Ears

■ Connections and Operations

1) Connect the HDMI input source into AC-DA18-AUHD

2) Connect the HDMI output equipment (Displays) into AC-DA18-AUHD

3) Insert the DC side of 12V power supply into AC-DA18-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.

■ Specifications

Operating Temperature Range	-5 to +35°C (-41 to +95 °F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Video Amplifier Bandwidth	Up to 18.0 GBPS
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
HDCP version	HDCP2.2 /HDCP1.4
Maximum Format Support	**4K60Hz 4:4:4 / 8K24Hz 4:2:0**

Other Video Formats Supported	VESA: 640x480, 800x600, 1024x768, 1280x1024, 1600x1200, 1920x1200 DTV/HDTV: 480i/576i/480p/576p/720p/1080i/1080p/4K
Output Video	HDMI 2.0, HDCP 2.2, HDR Compatible
Power Consumption	6 Watts (max.)
Power Supply	12V DC/3A
Dimensions	150mm (W) x 81mm (H) x 25mm (D)
Mass	0.5 KGS

■ Panel Descriptions

Front Panel

Activity Display (Front):

a) When Power is applied all lights flash RED and the machine begins to function. If no devices are plugged in, you can verify power by looking inside the vent on the right side of the unit.

b) When the INPUT device is plugged in, the light blink RED while "handshaking" is occurring, and goes SOLID once communication is complete and signal is good.

c) When a sink (display) is plugged into an OUTPUT, the corresponding light blinks RED until the "handshake" is complete. Once the connection is made the OUTPUT lights will go SOLID (If a sink or display is plugged in).

AC-DA18-AUHD

① Power input.

② HDMI input.

③ HDMI outputs (x8).

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 AC-DA18-AUHD uses a dual rotary style switch to house more EDID's and allow for future expansion. The dual rotary switches can be located on the side of the device, and each rotary is representative of a number in the desired setting, (Left Rotary=DIGIT ONE, Right Rotary=DIGIT TWO). The default mode is "00" which is both rotary switches pointed to "0", in this mode the device copies the EDID from the sink (display) plugged into OUTPUT 1. Custom EDID settings are below.

EDID ROTARY Settings:

00: EDID COPY (See NOTE 1)

01: 1080P_2CH(PCM)

02: 1080P_6CH

03: 1080P_8CH

04: 1080P_3D_2CH(PCM)

05: 1080P_3D_6CH

06: 1080P_3D_8CH

07: 4K30Hz_3D_2CH(PCM)

08: 4K30Hz_3D_6CH

09: 4K30Hz_3D_8CH

10: 4K60Hz(Y420)_3D_2CH(PCM)

11: 4K60Hz(Y420)_3D_6CH

12: 4K60Hz(Y420)_3D_8CH

13: 4K60Hz_3D_2CH(PCM)

14: 4K60Hz_3D_6CH

15: 4K60Hz_3D_8CH

16: 1080P_2CH(PCM)_HDR

17: 1080P_6CH_HDR

18: 1080P_8CH_HDR

19: 1080P_3D_2CH(PCM)_HDR

20: 1080P_3D_6CH_HDR

21: 1080P_3D_8CH_HDR

22: 4K30Hz_3D_2CH(PCM)_HDR

23: 4K30Hz_3D_6CH_HDR

24: 4K30Hz_3D_8CH_HDR

25: 4K60Hz(Y420)_3D_2CH(PCM)_HDR

26: 4K60Hz(Y420)_3D_6CH_HDR

27: 4K60Hz(Y420)_3D_8CH_HDR

28: 4K60Hz_3D_2CH(PCM)_HDR

29: 4K60Hz_3D_6CH_HDR

30: 4K60Hz_3D_8CH_HDR

31: Cascading Mode (See NOTE 2)

EDID Setting Cont. (Notes):

Note1: EDID Copy mode: EDID will be copied from sink on OUTPUT 1. The AC-DA18-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.
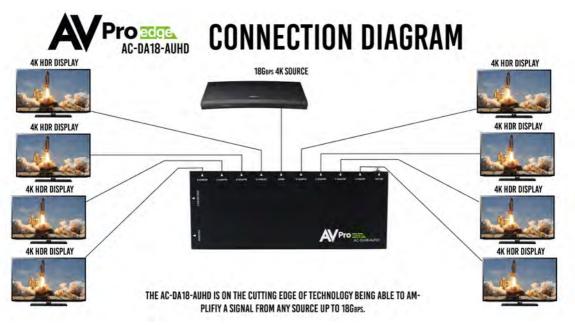
1. Start with power off
2. Set ROTARY SWITCHES to '00'.
3. Power on the unit
4. Power on the source device and connect the HDMI input port.

Note2: Cascading mode (Ideal for larger installations) Cascade mode does not react to the EDID from the sink device. It sends the signal that you put in, out. This is ideal for linking multiple units together. The method below is an ideal way to use this function effectively.

To use cascading mode:

1. Start with power off
2. Fix an EDID on the FIRST unit in the series from the list above (4K60, 4K30, 1080P, etc…)
3. Set the ROTARY SWITCHES on all subsequent units to "31"
4. Connect the source device
5. Power up the system

CONNECTION DIAGRAM

THE AC-DA18-AUHD IS ON THE CUTTING EDGE OF TECHNOLOGY BEING ABLE TO AM-PLIFIY A SIGNAL FROM ANY SOURCE UP TO 18GBPS.

▪ 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.

Thank you for choosing AVProEdge!

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