

User Manual

AC-DA12-AUHD

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

Distribution Amplifier with advanced EDID management

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



Introduction

The AC-DA12-AUHD is an 18GBPS, full bandwidth HDMI2.0a (HDR) with HDCP2.2 two-way HDMI splitter. Functionally, distributes the input HDMI signal to four identical HDMI outputs. These four outputs are synchronized.

AC-DA12-AUHD has the ability of pre-emphasis and equalization. Multiple cascaded AC-DA12-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 outperform the competition when in cascading mode no matter the signal is 4K or 1080P.

AC-DA12-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-DA12-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

AVProConnect 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.

■ Package Contents

- ① Main unit. P/N: AC-DA12-AUHD
- ② 5VDC Power Supply.
- ③ Operating Instructions. (Digital @ www.avproconnect.com)
- ④ Mounting Ears

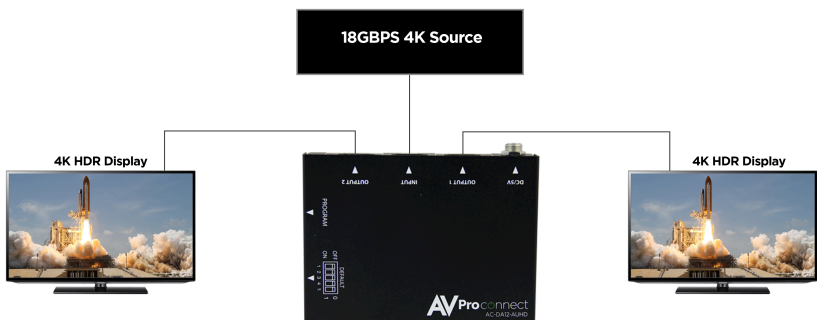
■ Connections and Operations

- 1) Connect the HDMI input source into AC-DA12-AUHD
- 2) Connect the HDMI output equipment (Displays) into AC-DA12-AUHD
- 3) Insert the DC side of 5v power supply into AC-DA12-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.

 **AVProconnect**
AC-DA12-AUHD

Application Diagram



The AC-DA12-AUHD is on the cutting edge of technology, being able to amplify a signal from any source up to a 18GBPS.

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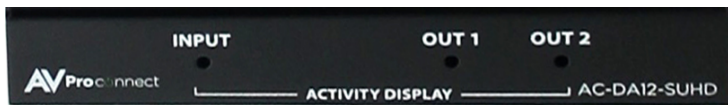
AVProConnect ~ 3518 N Casco Ave. Sioux Falls, SD 57104~ 1.877.886.5112 ~ +1.605.274.6055 ~ support@avproconnect.com

■ 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	5V DC/2A
Dimensions	150mm (W) x 81mm (H) x 25mm (D)
Mass	0.5 KGS

■ Panel Descriptions

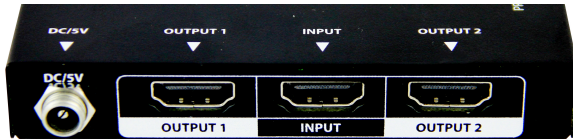
Front Panel



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).

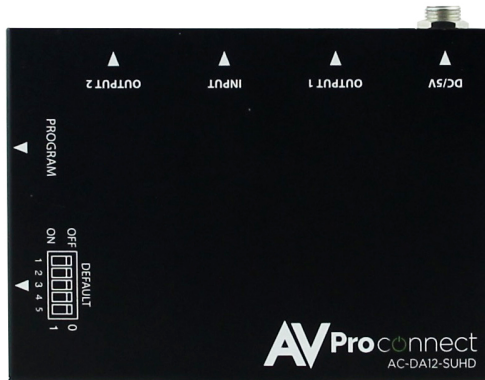
Back Panel



- ① Power input.
- ② HDMI input.
- ③ HDMI outputs (x2).

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. Custom EDID setting below.



EDID DIP Settings:

- | | |
|-------------------------------------|------------------------------------|
| 00000: EDID COPY (See NOTE 1) | 01101: 4K60Hz_3D_2CH(PCM) |
| 00001: 1080P_2CH(PCM) | 01110: 4K60Hz_3D_6CH |
| 00010: 1080P_6CH | 01111: 4K60Hz_3D_8CH |
| 00011: 1080P_8CH | 10000: 1080P_2CH(PCM)_HDR |
| 00100: 1080P_3D_2CH(PCM) | 10001: 1080P_6CH_HDR |
| 00101: 1080P_3D_6CH | 10010: 1080P_8CH_HDR |
| 00110: 1080P_3D_8CH | 10011: 1080P_3D_2CH(PCM)_HDR |
| 00111: 4K30Hz_3D_2CH(PCM) | 10100: 1080P_3D_6CH_HDR |
| 01000: 4K30Hz_3D_6CH | 10101: 1080P_3D_8CH_HDR |
| 01001: 4K30Hz_3D_8CH | 10110: 4K30Hz_3D_2CH(PCM)_HDR |
| 01010: 4K60Hz(Y420)_3D_2CH(PCM) | 10111: 4K30Hz_3D_6CH_HDR |
| 01011: 4K60Hz(Y420)_3D_6CH | 11000: 4K30Hz_3D_8CH_HDR |
| 01100: 4K60Hz(Y420)_3D_8CH | 11100: 4K60Hz_3D_2CH(PCM)_HDR |
| 11001: 4K60Hz(Y420)_3D_2CH(PCM)_HDR | 11101: 4K60Hz_3D_6CH_HDR |
| 11010: 4K60Hz(Y420)_3D_6CH_HDR | 11110: 4K60Hz_3D_8CH_HDR |
| 11011: 4K60Hz(Y420)_3D_8CH_HDR | 11111: Cascading Mode (See NOTE 2) |

EDID Setting (Notes):

Note1: EDID Copy mode: EDID will be copied from sink on OUTPUT 1. The AC-DA12-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.

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 DIP on all subsequent units to “11111” (all down).
4. Connect the source device
5. Power up the system

■ Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

■ Product Service

● Provided Service

- 1) **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 cabinet damaged.
- 2) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- 3) **Replacement parts:** When parts need replacing ensure the service uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4) **Safety check:** After repairs or service, ask the service to perform safety checks to confirm that the unit is in proper working condition.

- **Mail-In Service**

When shipping the unit, carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a daytime phone and/or email address where you can be reached.

If repair is needed during the limited warranty period the purchaser will be required to furnish a sales receipt/proof of purchase indicating date of purchase, amount paid and place of purchase. Customer will be charged for the repair of any unit received without such proof of purchase.

- **Warranty**

If your product does not work properly because of a defect in materials or workmanship, AVProConnect (referred to as “the warrantor”) will, for the length of the period indicated as below, (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.

● Warranty Limits and Exclusions

- 1) **This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage.** The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service Center or other Authorized Service, or damage that is attributable to acts of God.

- 2) **There are no express warranties except as listed under “limited warranty coverage”.** The warrantor is not liable for incidental or consequential damages resulting from the use of this product, or arising out of any breach of this warranty. (As examples, this excludes damages for lost time, cost of having someone remove or re-install a/an installed unit if applicable, travel to and from the service location, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)

Safety Instructions:

After Sale Service

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.

1. 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.
2. Do not operate these products outside the specified temperature and humidity range given in the above specifications.
3. Ensure there is adequate ventilation to allow this product to operate efficiently.
4. Repair of the equipment should only be carried out by qualified professionals as these products contain sensitive devices that may be damaged by any mistreatment.
5. Only use this product in a dry environment. Do not allow any liquids or harmful chemicals to come into contact with these products.

After Sale Service

1. Should you experience any problems while using this product, firstly refer to the Troubleshooting section in this manual before

contacting Technical Support.

2. When Calling Technical Support, the following information should be provided:

- Product name and model number
- Product serial number
- Details of the fault and any conditions under which the fault occurs.

3. This Product has a two year standard warranty, beginning from the date of purchase as stated on the sales invoice. Online registration of this product is required to activate the full three year extended warranty. For full details please refer to our terms and conditions.

4. Product warranty is automatically void under any of the following conditions:

- The product is already outside of its warranty period
- Damage to the product due to incorrect usage or storage
- Damage caused by unauthorized repairs
- Damage caused by mistreatment of the product

5. Only use this product in a dry environment. Do not allow any liquids or harmful chemicals to come into contact with these products.

