

User Manual

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

Distribution Amplifier with advanced EDID management

AC-DA18-AUHD-GEN2



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Introduction

The AC-DA18-AUHD-GEN2 is a part of the first true 18Gbps Distribution Amplifier Family. This is an ideal product on all applications where stable distribution is key. This distribution amplifier can be cascaded for extended distances and additional outputs.

Full 18Gbps and HDR support ensures military grade stability even at the highest of bandwidths. Install the distribution amplifier with confidence in your next bar, restaurant, digital signage, commercial or residential install and see the difference.

Features

- HDMI 2.0a - HDR - HDCP 2.3
- 18Gbps Bandwidth
- 4K60 4:4:4 Support (Up to 8K Support)
- Advanced EDID Management (Dual Rotatory Dials)
- Full HDR Support
- Locking Power connector
- Ultra low-profile design
- Cascadable

In The Box

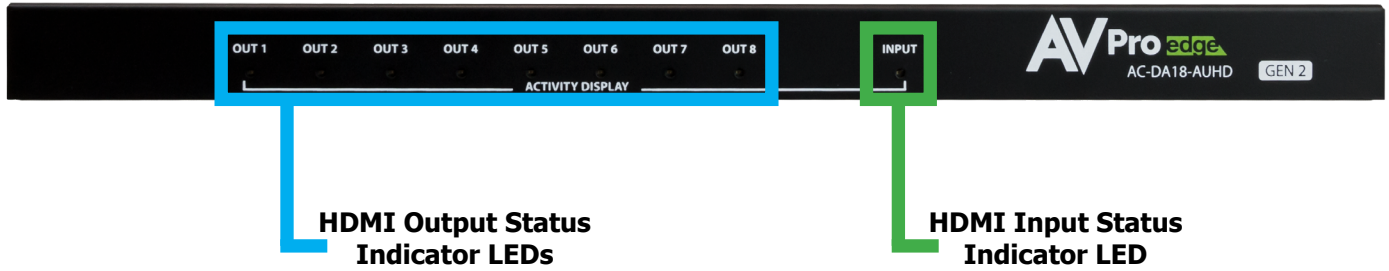
- AC-DA18-AUHD-GEN2
- 12V Locking Power Supply (100-240V input)
- x2 Mounting Brackets
- x4 Screws for Mounting Brackets
- x4 Rubber Feet



Specifications

VIDEO:	
VIDEO RESOLUTIONS	UP TO 4K 60HZ 4:4:4
VESA RESOLUTIONS	UP TO DCI 4K (4096X2160)
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)
AUDIO:	
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
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 2.2 AND EARLIER
PORTS:	
HDMI	TYPE A
LAN	RJ45 W/ WEB INTERFACE/ CONTROL
FIRMWARE	MICRO USB
ENVIRONMENTAL:	
OPERATING TEMPERATURE	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	INPUT: AC 100-240V ~ 50/60HZ OUTPUT: DC 12V 2A
DIMENSIONS:	
DIMENSIONS (UNIT ONLY WIDTH/DEPTH/HEIGHT)	MM: 300 X 115.57 X 21.24 INCH: 11.81 X 4.55 X 0.84
DIMENSIONS (PACKAGED WIDTH/DEPTH/HEIGHT)	MM: 317.5 X 184.15 X 76.2 INCH: 12.5 X 7.25 X 3
WEIGHT (UNIT)	2 LBS (0.90 KG)
WEIGHT (PACKAGED)	2.5 LBS (1.2 KG)
*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. MASS & DIMENSIONS ARE APPROXIMATE	

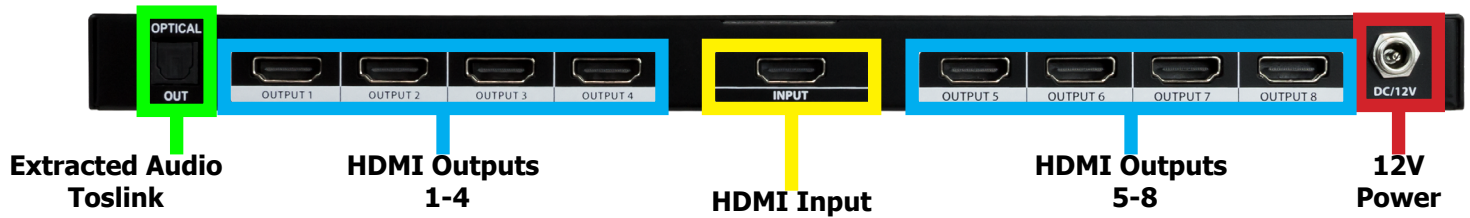
Front Overview



HDMI Status Indicator LEDs will have two states.

- LED is ON - A source/sync is detected on that HDMI port.
- LED is OFF - No source/sync is detected on that HDMI port.

Back Overview



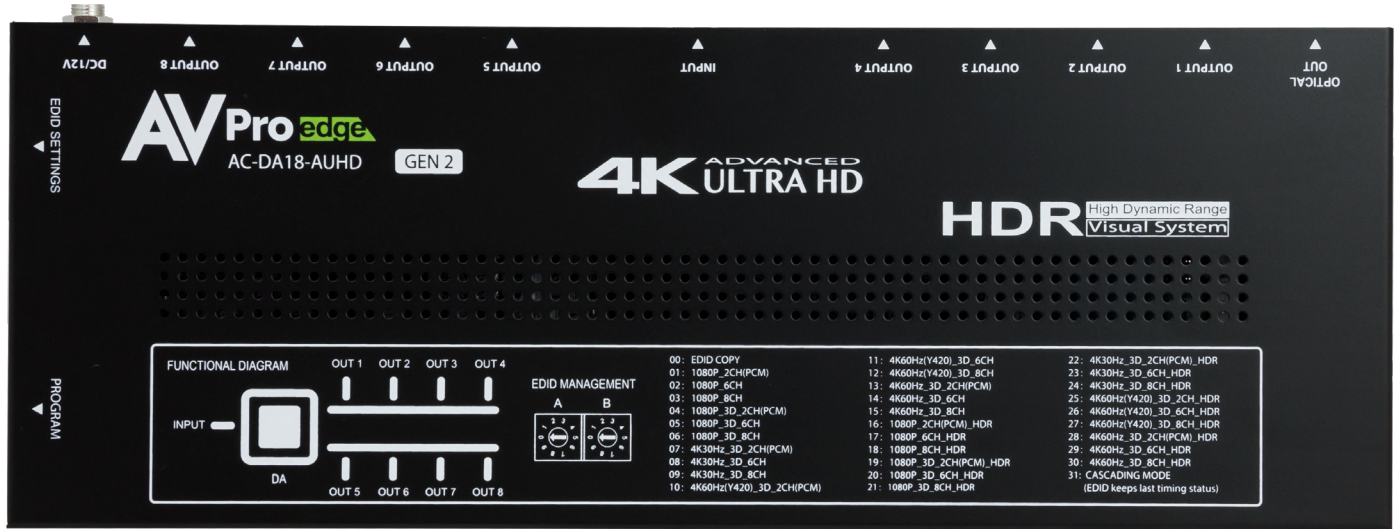
Extracted Audio TOSLINK - Supports up to 5.1Ch Audio

HDMI Outputs - x8 HDMI 2.0

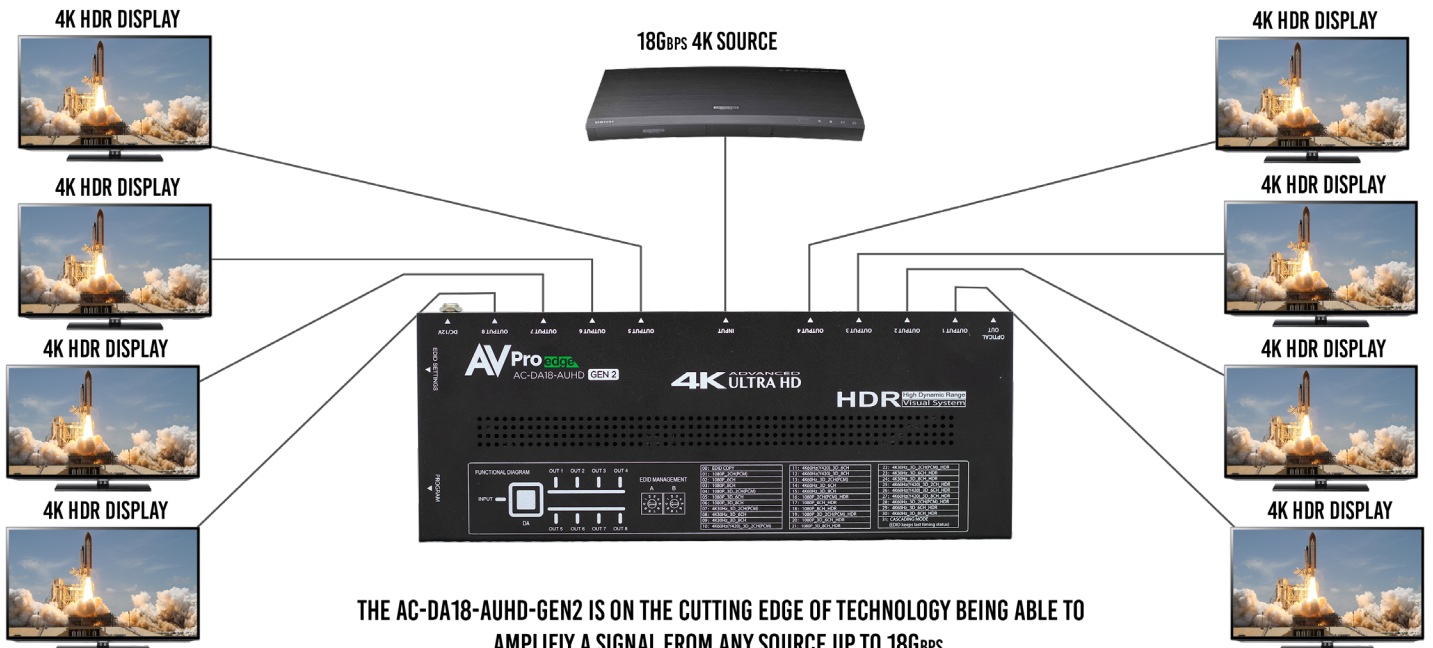
HDMI Input - x1 HDMI 2.0

12V Power - Locking 12V power connector

Top Overview



Top of the device lists the available built in EDIDs. Default out of the box the rotary dials will be set to 00: EDID COPY. This will copy the EDID from the Sync device connected to the HDMI OUTPUT #1.



Side Panel - EDID Management



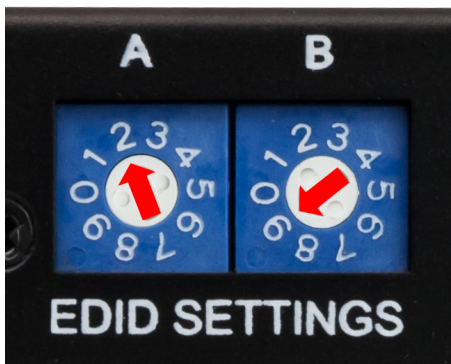
The AC-DA18-AUHD-GEN2 uses a dual rotary style switches located on the side of the device to change the EDID settings. Default out of the box both will be set to 00: EDID COPY. This will copy the EDID from the sync connected to HDMI OUTPUT 1. If the sync device connected to HDMI OUTPUT1 ever changes and you wish to use that EDID, please follow the steps below to copy the new EDID.

1. Start with power off
2. Set Rotary dials to both 0 (Zero)
3. Power on the unit
4. Power on the source device and connect the HDMI input port.

To Change the EDID of the INPUT

1. Start with the power off
2. Turn the two rotary dials to corresponding EDID you want to use. A list of all available EDIDs is printed on the top of the AC-DA18-AUHD-GEN2.

Example 29: 4K60Hz_3D_8CH_HDR
A set to #2 B set to #9

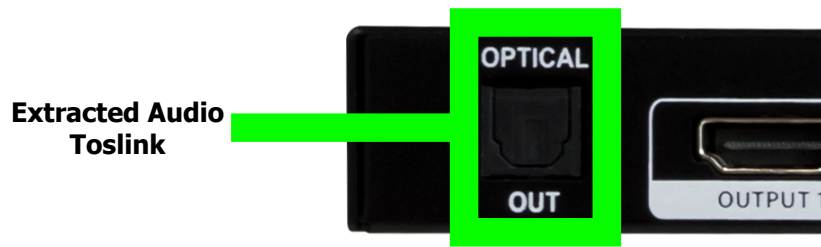


EDID MANAGEMENT			
A	B		
00: EDID COPY	11: 4K60Hz(Y420)_3D_6CH	22: 4K30Hz_3D_2CH(PCM)_HDR	
01: 1080P_2CH(PCM)	12: 4K60Hz(Y420)_3D_8CH	23: 4K30Hz_3D_6CH_HDR	
02: 1080P_6CH	13: 4K60Hz_3D_2CH(PCM)	24: 4K30Hz_3D_8CH_HDR	
03: 1080P_8CH	14: 4K60Hz_3D_6CH	25: 4K60Hz(Y420)_3D_2CH_HDR	
04: 1080P_3D_2CH(PCM)	15: 4K60Hz_3D_8CH	26: 4K60Hz(Y420)_3D_6CH_HDR	
05: 1080P_3D_6CH	16: 1080P_2CH(PCM)_HDR	27: 4K60Hz(Y420)_3D_8CH_HDR	
06: 1080P_3D_8CH	17: 1080P_6CH_HDR	28: 4K60Hz_3D_2CH(PCM)_HDR	
07: 4K30Hz_3D_2CH(PCM)	18: 1080P_8CH_HDR	29: 4K60Hz_3D_6CH_HDR	
08: 4K30Hz_3D_6CH	19: 1080P_3D_2CH(PCM)_HDR	30: 4K60Hz_3D_8CH_HDR	
09: 4K30Hz_3D_8CH	20: 1080P_3D_6CH_HDR	31: CASCADING MODE	
10: 4K60Hz(Y420)_3D_2CH(PCM)	21: 1080P_3D_8CH_HDR	(EDID keeps last timing status)	

3. Power on the unit.

Extracted Audio

The extracted audio is always active by default, you may simply plug into the port and the audio will be output based on the active source. The Toslink ports supports up to 5.1Ch digital audio.



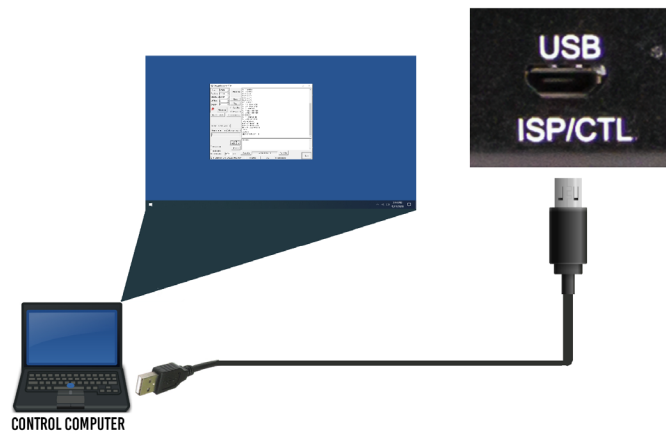
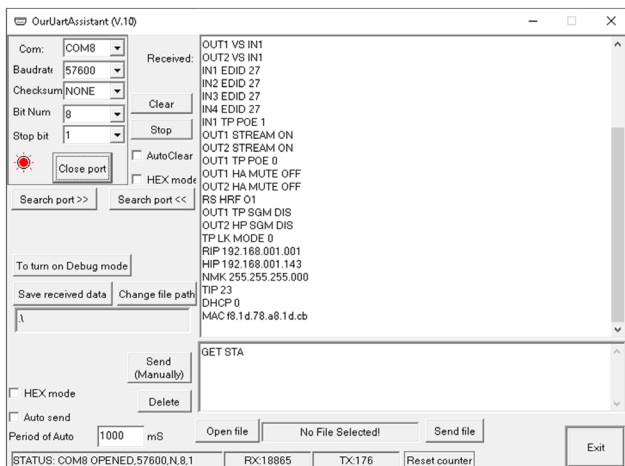
Additionally the extracted audio ports can be disabled/enabled via USB-C port and the command list

SET OUT1 EXA EN/DIS - See page(s) 10-11 for command list details.

USB Control

The AC-DA18-AUHD-GEN2 has a Micro USB port on the side next to the EDID Rotary Dials. You can connect using a windows computer and MyUart assist (available to download for free on www.avproedge.com/drivers). See page[s] 9 for complete command list.

USB CONTROL FOR AVPRO EDGE

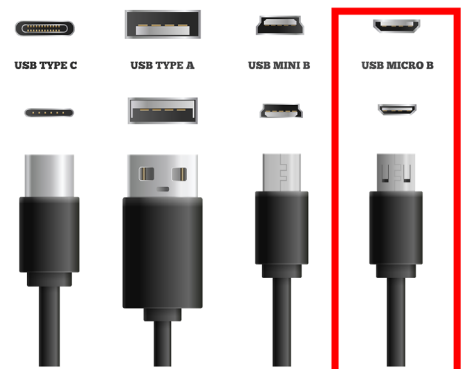


WWW.AVPROEDGE.COM/DRIVERS

OTHER TOOLS & DRIVERS

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

Universal FTDI USB->Serial Driver: Used with SDX-G/SDX-A & Fox & Hound and several USB-Serial converters supplied by AVPro Edge



Command List

- Baudrate: 57600
- Checksum: None

- Bit Num: 8
- Stop Bit: 1

Command	Action
H	: Help
STA	: Show Global System Status
SET RST	: Reset to Factory Defaults
SET RBT	: System Reset to Reboot
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 0=All HDMI Output,[1-8]=HDMI Output Number)	
SET OUTx EXA EN/DIS	: Set Ex-Audio Output Enable/Disable{x=[0](0=ALL)}
SET OUTx STREAM ON/OFF	: SET HDMI OUTx STREAM ON/OFF{x=[0~8](0=ALL)}
GET OUTx EXA	: Get Ex-Audio Output Enable/Disable Status{x=[0](0=ALL)}
GET OUTx STREAM	: Get HDMI Output x Stream ON/OFF Status{x=[0~8](0=ALL)}
GET OUTx EDID DATA	: Get HDMI Output x EDID DATA{x=[1~8]}

Troubleshooting

- **Verify Power** - Check that the power supply is properly connected and on an active circuit. The front display screen should illuminate with a button press. The red HDMI activity light should be on for any active HDMI Input or HDMI Output(s).
- **Verify Connections** - Check that all cables are properly connected.
- **Lights indicate everything is good but still not getting a picture**, this may be a bandwidth limitation. See Bandwidth Chart below to verify the signal is not exceeding the bandwidth of any of the devices connected in the signal chain.

HDMI 2.0 Bandwidth Chart

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

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

Warranty

THE BASICS.

AVPro Edge warranties its products that are purchased from all Authorized AVPro Edge Resellers or direct purchases. Products are guaranteed to be free from manufacturing defects and of sound physical and electronic condition.

AVPro Edge has developed a warranty that anyone can get behind. We really wanted to take all the “red tape” out of a warranty and just make it simple. Our 10 YEAR NO BS warranty hinges on 3 elements.

1. If you are having trouble, call us. We will attempt to troubleshoot your issue over the phone.
2. If it's broke - We'll replace it in advance on our dime. (We'll cover return shipping too.) Repair is an option too, but it's YOUR call.
3. We know you know what you are doing. We will not make you go through unnecessary steps to troubleshoot an extender..

COVERAGE DETAILS.

AVPro Edge will replace or repair (at customer choice) the defective product. If the product is out of stock or on back order it can either be replaced with a comparable product of equal value/feature set (if available) or repair.

Your warranty begins at receipt of product (as confirmed by shipping firm tracking). If tracking information is unavailable for any reason, the warranty will commence 30 ARO (After Receipt of Order). The coverage continues for 10 YEARS.

RED TAPE.

AVPro Edge is not responsible for untraceable purchases or those that were made outside of an authorized channel.

If we conclude that a product or serial number has been tampered with as identified by warranty seal or physical examination the warranty will be void. Additionally, excessive physical damage (beyond normal wear & tear) the warranty may be voided or pro-rated based on the extent of the damage as examined by an AVPro Edge representative.

Damage caused by “acts of God” are not covered. They can include natural disasters, power surges, storms, earthquakes, tornadoes, sink holes, typhoons, tidal waves, hurricanes, or any other uncontrollable event related to nature.

Damage caused by incorrect installation will not be covered. Incorrect power supply, inadequate cooling, improper cabling, inadequate protection, static discharge are examples of this.

Products installed or sold by a third party to AVPro Edge will be serviced by the Authorized AVPro Edge Reseller.

Accessories (IR Cables, RS-232, Power Supplies, etc...) are not included in the warranty. We will make acceptable effort to source and supply replacements for defective accessories at a discounted rate as needed.

OBTAINING AN RMA.

Dealers, Re-sellers, and Installers can request an RMA AVPro Edge Tech Support Rep or their Sales Engineer. Or you may email support@avproedge.com or fill out the general contact form at www.avproedge.com

End users may not request an RMA directly from AVPro Edge and will be referred back to the Dealer, Re-seller or Installer.

SHIPPING.

For USA (not including Alaska and Hawaii). Shipping is covered on advanced replacements for FedEx Ground (some expressed exceptions may apply). Defective product return shipping is covered by AVPro Edge using an emailed return label. Item must be returned within 30 days of receipt of replacement product, after 30 days, the customer will be billed. Other return shipping methods will not be covered.

For International (and Alaska and Hawaii) return shipping costs will be the responsibility of the returnee. Once the unit is scanned for return shipping AVPro Edge will ship new unit for replacement.

LEGAL STUFF.

Limitation on Liability

The maximum liability of AVPro Global Holdings LLC under this limited warranty shall not exceed the actual purchase price paid for the product. AVPro Global Holdings LLC is not responsible for direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or under any other

legal theory to the maximum extent permitted by law.

Taxes, Duties, VAT, and freight forwarding service charges are not covered or paid for by this warranty.

Obsolescence or incompatibility with newly invented technologies (after manufacture of product) is not covered by this warranty.

Obsolescence is defined as:

“Peripherals are rendered obsolete when current technology does not support product repair or re-manufacture. Obsolete products cannot be re-manufactured because advanced technologies supersede original product manufacturer capabilities. Because of performance, price and functionality issues, product redevelopment is not an option.”

Discontinued or out of production items will be credited at fair market value towards a current product of equal or comparable capabilities and cost. Fair market value is determined by AVPro Edge.

Exclusive Remedy

To the maximum extent permitted by law, this limited warranty and the remedies set forth above are exclusive and in lieu of all other warranties, remedies and conditions, whether oral or written, express or implied. To the maximum extent permitted by law, AVPro Global Holdings LLC specifically disclaims any and all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. If AVPro Global Holdings LLC cannot lawfully disclaim or exclude implied warranties under applicable law, then all implied warranties covering this product, including warranties of merchantability and fitness for a particular purpose, shall apply to this product as provided under applicable law.

This warranty supersedes all other warranties, remedies and conditions, whether oral or written, express or implied.

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Thank you for choosing AVProEdge!

Please contact us with any questions, we are
happily at your service!



AVProEdge

2222 E 52nd St N ~ Sioux Falls, SD 57104

1-877-886-5112 ~ 605-274-6055

support@avproedge.com