User Manual

Ultra Slim 70 M HDBaseT Receiver with Bi-Directional Power

The AVPro Edge primary extender is the most cost effective, state of the art, and reliable single CAT 70 meter extender on the market today. It solves problems for both commercial and residential markets for distributing high value 4K UHD content from rack to display. With the additional ability to cascade extenders, affordable and reliable HDMI extension is now possible. Additionally AC-EX70-UHD offers solutions for UHD/HD uncompressed distribution in residential digital entertainment centers, retail stores, AV events that require reliable and long distance distribution, suitable for Data Center, Control Rooms, Conference Rooms, Schools and Corporate Training environment.

Product Overview

Model Numbers: ▪ **AC-EX70-UHD-R** ~ HDBaseT Receiver w/ IR, and RS-232

▪ Features:

- HDMI 2.0
- HDCP 2.2 & Earlier
- CEC Pass Through
- Up to 150 meters
- 3-20v protection circuit built in for safe IR transport
- Bi Directional RS232 Transport
- Supports uncompressed PCM 2- Ch., LPCM 5.1 & 7.1, Dolby Digital, DTS, Dolby TrueHD, DTS HD-Master Audio, Atmos on HDMI
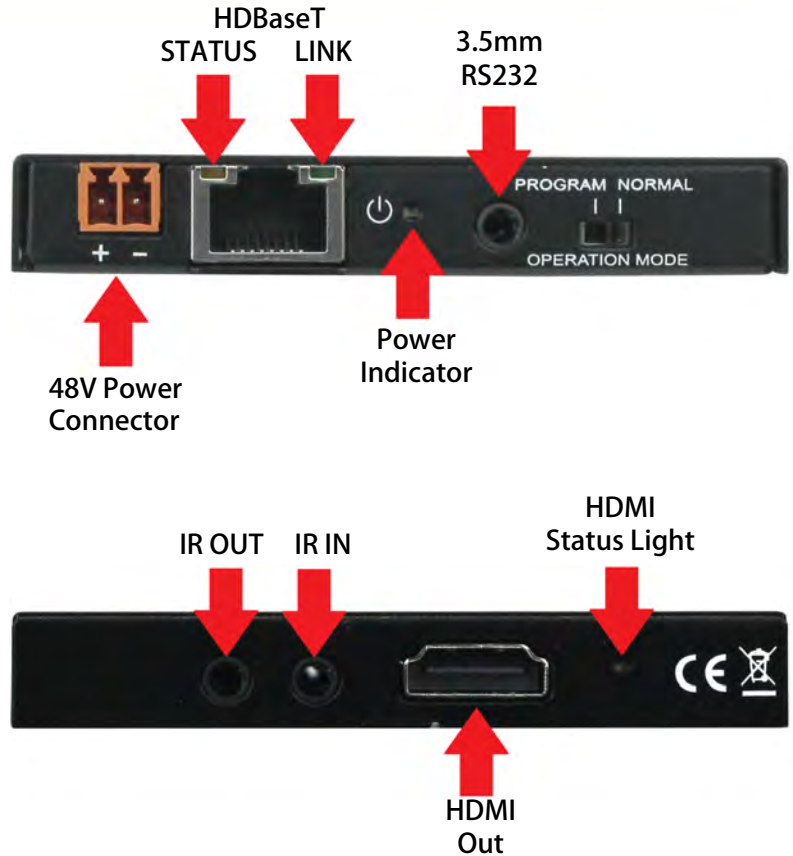
▪ Compatible Transmitter:

- AC-DA210-HDBT
- AC-CXTT-VGA-T
- AC-CXWP-HDMO-T
- AC-CXWP-MDP-T
- AC-CXWP-USBC-T
- AC-CXWP-VGA-T

▪ Whats In The Box

- AC-EX70-UHD-RX (Receiver)
- 1 x IR Tx Unit
- 1 x IR Rx Unit
- 3.5mm stereo plug to male DB9 for RS-232 to serial port
- 3.5mm stereo plug to female DB9 for RS-232 to PC

AV Pro edge

VIDEO:

VIDEO RESOLUTIONS	UP TO 4K 60HZ 4:2:0 & 4K30 4:4:4
VESA RESOLUTIONS	UP TO 2560X2048 (QSXGA)
HDR FORMATS/RESOLUTIONS	4K24 4:2:2 12 BIT, 4K24 4:2:0 10 BIT
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 (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

DISTANCE:

HDBASET DISTANCE (4K & HDR)	40 METERS (131 FEET) (CAT 6A)
HDBASET DISTANCE (FULL HD)	70 METERS (230 FEET) (CAT 6A)
HDMI LEAD IN/OUT	UP TO 50 FEET (USING BULLET TRAIN HDMI)
HDMI LEAD IN/OUT (W/ AOC CABLE)	UP TO 130 FEET (USING BULLET TRAIN AOC)

OTHER:

BANDWIDTH	10.2 GBPS
CEC	YES
HDCP	HDCP 2.2 AND EARLIER

PORTS:

HDMI	TYPE A
HDBASET	RJ45 W/ POH FOR HDBASET RECEIVERS
IR	3.5MM
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)	7.5 WATTS MAX
POWER SUPPLY - TRANSMITTER	INPUT: AC 100-240V ~ 50/60HZ OUTPUT: DC 48V .5A

DIMENSIONS:

DIMENSIONS (HEIGHT/DEPTH/WIDTH)	MM: 12.7 X 80 X 100.3 INCH: 0.5 X 3.15 X 3.95
DIMENSIONS (PACKAGED HEIGHT/DEPTH/WIDTH)	MM: 90 X 135 X 155 INCH: 3.54 X 5.31 X 6.1
WEIGHT (UNIT)	0.4 LBS (0.18 KG)
WEIGHT (PACKAGED)	0.6 LBS (0.27 KG)

*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. MASS & DIMENSIONS ARE APPROXIMATE

HDBaseT
STATUS   LINK

3.5mm
RS232

48V Power
Connector

Power
Indicator

IR OUT   IR IN

HDMI
Status Light

HDMI
Out

Indicator Lights on the Receiver:

POWER - On the back: (Red) This is an indicator that the power is connected. There are only two states for light:

- Light Is On = Power supply is connected and functioning.
- Light Is Off = Power supply is not connected or there is no power present.(In order to have power: check the power supply, USP, Outlet, etc...)

HDMI SIGNAL STATUS - On the front: (Blue) This indicator shows that the HDMI Sink is connected. The states are:

- Light Is On (Solid) = Sync w/ HDMI sink is correct and solid.
- Light Is Flashing = The light flashes during the sync process. If it is flashing continuously, you may still have a picture, but it is indicating that the Rx is correcting a BE (Bit Error) to make the picture show on the display.

If the BLUE HDMI SIGNAL STATUS LIGHT is flashing AND you have no picture, check the following:

1. The source. Plug it directly into the display to be sure it's functioning properly.
2. Try a longer HDMI cable. Some HDMI cables do not sync well at shorter lengths.
3. Contact AVProEdge if these suggestions do not work.

Indicator Troubleshooting Lights on the Receiver cont.:

LINK - Above RJ45 (HDBT) Port: (Green)   This indicator shows that the AV HDBT link between the Transmitter and Receiver is in tact. This light will ALWAYS be solid. If this light is flashing or not present do the following:

1. Check the length. The maximum distances are 70m (230ft) on 4K and 100m (330ft) on 1080P.

2. Remove any coils of cable and make sure that there is not excess cabling.

3. Bypass all patch panels and punch-down blocks.

4. Re-terminate connectors. Standard RJ45 ends are recomended, passthrough style ends can cause crosstalk/interference issues. Also, even if a cable tester indicates the run is valid, something may be slightly off.

5. Contact AVProEdge if these suggestions do not work.

STATUS- Above RJ45 (HDBT) Port: (Amber) This indicator shows that the power is present between the Transmitter and Receiver. This light ALWAYS BLINKS steadily indicating everything is correct. If you do not see this light, try the following:

1. Check the length. The maximum distances are 70m (230ft) on 4K and 100m (330ft) on 1080P.

2. Remove any coils of cable and make sure that there is not excess cabling.

3. Bypass all patch panels and punch-down blocks.

4. Re-terminate connectors. Standard RJ45 ends are recomended, passthrough style ends can cause crosstalk/interference issues. Also, even if a cable tester indicates the run is valid, something may be slightly off.

5. Contact AVProEdge if these suggestions do not work.

HDBaseT STATUS   LINK
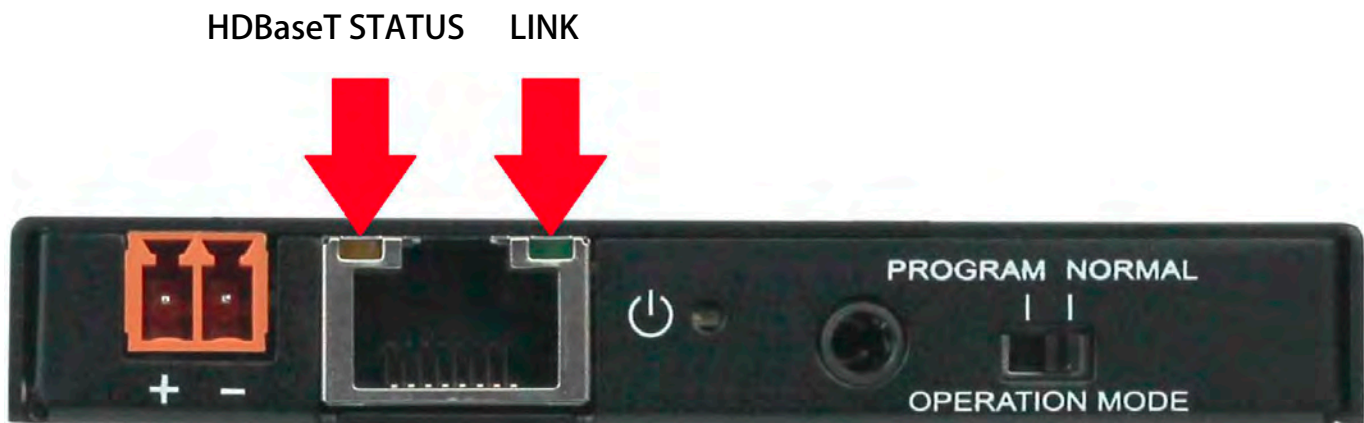
▪ *IR Configuration*

IR can be used in three ways:

1. From Rack (Control System Direct): Plug a MONO 3.5mm cable into an emitter port of any control system directly into the "IR IN" port on the AC-EX70-UHD-T switch to pass IR signals directly to the remote end.
2. From Rack (Using IR-EYE): Plug an IR-Receiver Eye into the "IR IN" of the AC-MX44/88-AUHD-HDBT switch in order to pass infrared signals generated from a device or IR Remote.
3. From Remote End: Use an IR-Receiver Eye on the AC-EX70-UHD-R (IR In Port) in order to send IR signals BACK to the rack and out of the switch IR Out Port with an emitter.
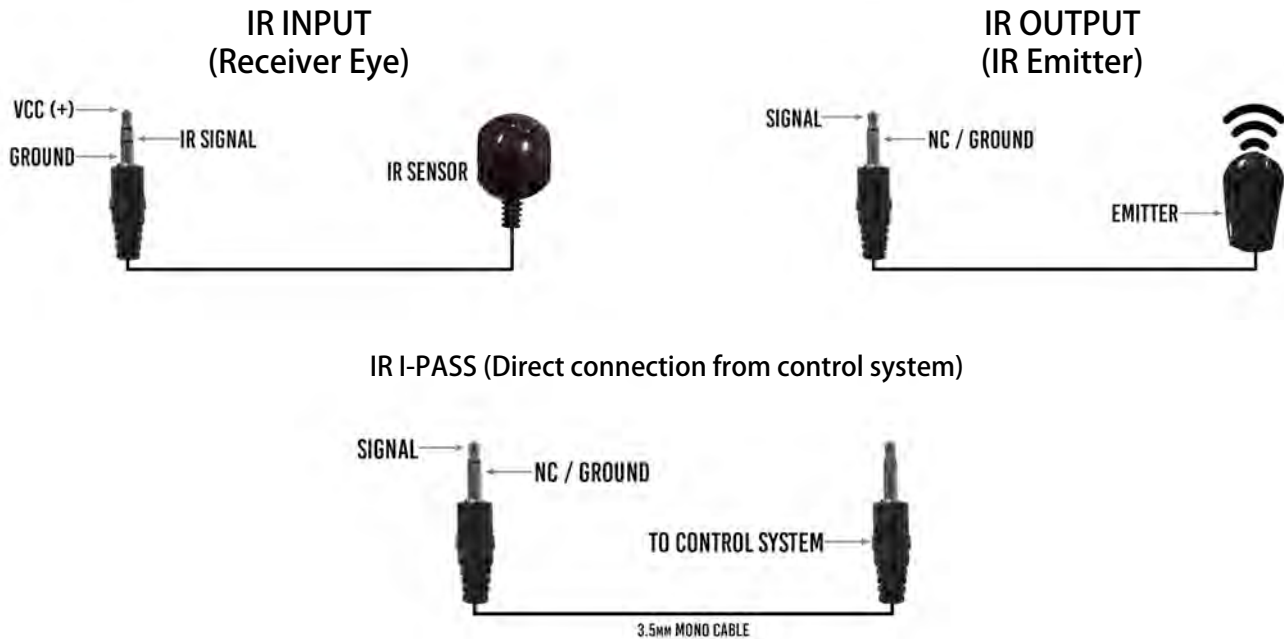
IR CONTROL - IPASS

CONTROL SYSTEM

TRANSMITTER

CONNECTED TO "I-PASS"

CAT 5/6/7

RECEIVER

CONNECTED TO "IR OUT"

DISPLAY/ PROJECTOR/ SINK

IR EMITTER

3.5MM CABLE

IR CONTROL - SENDING

TRANSMITTER

CONNECTED TO "IR IN"

CAT 5/6/7

RECEIVER

IR EYE

CONNECTED TO "IR OUT"

DISPLAY/ PROJECTOR/ SINK

IR EMITTER

IR CONTROL - RECEIVING

SOURCE/ SWITCH

TRANSMITTER

CONNECTED TO "IR OUT"

CAT 5/6/7

RECEIVER

CONNECTED TO "IR IN"

IR EYE

IR EMITTER

■ IR Connections

IR INPUT
(Receiver Eye)

IR OUTPUT
(IR Emitter)

IR I-PASS (Direct connection from control system)

▪ Troubleshooting

- Verify Power - Pg. 4
    - o Verify power is present- Pg. 3
- Verify Connections - Check that all cables are properly connected
    - o RX Indicator Troubleshooting Lights - Pg. 3-4
- HDBaseT Connection Issues with Transmitter - Pg. 4
- IR Issues - Verify correct connections - P. 5-6
    - o Visibly flashing Emitters may not function properly, try the IR Cables that come in the box if you are experiencing problems
- Still having issues, contact us
    - o Support Direct -   +1-605-977-3477
    - o All Inquiries -   1-605-274-6055
    - o Submit a support request ticket
        - ➢ https://support.avproedge.com/hc/en-us/requests/new

■ *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 happily at your service!

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