

AC-EXO-444-KIT

4K HDMI EXTENDER VIA OPTICAL FIBER; UP TO 2 KILOMETER

QUICK START GUIDE

THIS IS AVPRO EDGE'S FLAGSHIP FIBER OPTIC EXTENDER, ALLOWING THE USER TO EXTEND AN HDMI SIGNAL 2 KILOMETERS VIA SINGLE-MODE FIBER, AND UP TO 300 METERS USING MULTI-MODE FIBER. YOU CAN GO EVEN FURTHER BY INSTALLING YOUR OWN SFP PORT. IT SOLVES PROBLEMS FOR BOTH COMMERCIAL AND RESIDENTIAL MARKETS FOR DISTRIBUTING HIGH VALUE 4K 18GBPS CONTENT FROM RACK TO DISPLAY. THESE EXTENDERS GO THE DISTANCE, NO NEED TO FIND POWER AND CASCADE EXTENDERS FOR ULTRA-LONG RUNS. ADDITIONALLY, AC-EXO-444 OFFERS SOLUTIONS FOR 18GBPS 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.

THIS QUICK START GUIDE WILL BE GOING THROUGH:

- SET UP OF TRANSMITTER AND RECEIVER
- INSTALLATION / RECOMMENDED CONNECTION ORDER
- EDID MANAGEMENT
- SCALER SETTINGS
- RS-232 CONFIGURATION
- IR CONFIGURATION
- TEST PATTERN
- TROUBLESHOOTING



SETUP OF THE RECEIVER:

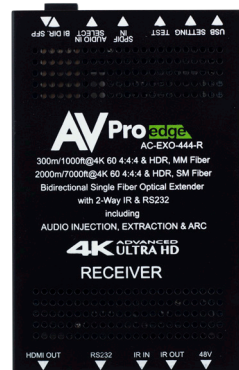
AUDIO SELECT SLIDE SWITCH: USE THIS TO SELECT WHERE ARC WILL COME FROM.

THERE ARE TWO MODES TO CHOOSE FROM:

1. ARC (DEFAULT) - THE AUDIO SENT BACK TO THE TRANSMITTER WILL BE FROM THE HDMI AUDIO RETURN CHANNEL. THE SUPPORTED FORMATS ARE 2CH PCM, 6CH/7CH LPCM, DTS 5.1, DOLBY DIGITAL, DOLBY DIGITAL PLUS. IN THIS MODE THE SPDIF INPUT IS INACTIVE.

- TO USE ARC VIA HDMI, MAKE SURE ARC IN ENABLED ON AVR AND DISPLAY PROPERLY.
- THE SPDIF OUT ON THE TRANSMITTER WILL BE ACTIVE FOR UP TO DD+
- DOLBY ATMOS CAN PASS OVER HDMI ARC

2. SPDIF (RECOMMENDED) - THE AUDIO SENT BACK TO THE TRANSMITTER WILL BE FROM THE SPDIF INPUT. THE SUPPORTED FORMATS ARE 2CH PCM, 6CH/7CH LPCM, DTS 5.1, DOLBY DIGITAL, DOLBY DIGITAL PLUS. NO DOWN-MIX, PASS THROUGH ONLY. PLEASE SEE THE AC-ADM-COTO FOR DOWN-MIXING.



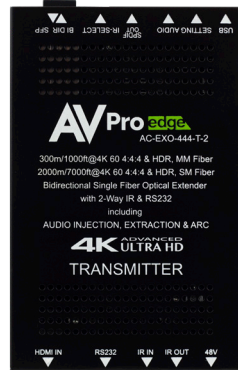
*NOTE - ON THE TRANSMITTER, YOU CAN RETRIEVE THE SIGNAL FROM HDMI OR SPDIF TOSLINK

SETUP OF THE TRANSMITTER:

IR MODE SLIDE SWITCH: (ON FRONT) THIS IS USED TO SELECT A PREFERRED IR MODE

THERE ARE TWO MODES:

- 1. IR-EYE - THE IR INPUT WILL BE CONFIGURED TO OPERATE WITH AN IR RECEIVER EYE (DEFAULT)**
- 2. I-PASS – THE IR INPUT WILL BE CONFIGURED TO SAFELY OPERATE WITH A DIRECT CONNECTION FROM A CONTROL SYSTEM USING A MONO OR STEREO 3.5MM CABLE. IT'S PROTECTED @ 3V-20V.**

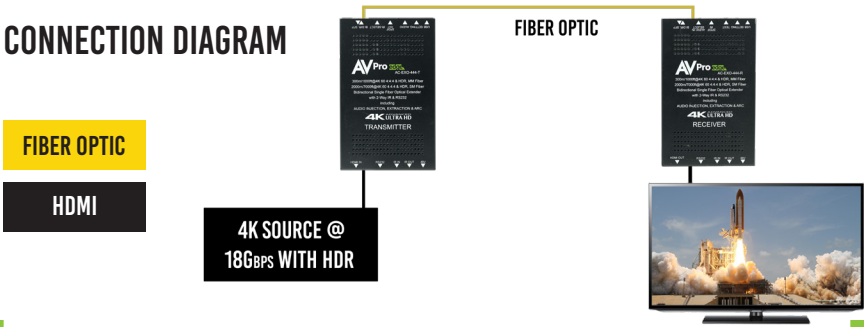


USING THE SETTING BUTTON: THE SETTING BUTTON CAN BE PRESSED IN DIFFERENT COMBINATIONS BASED ON WHAT IS NEEDED. THE STATUS LIGHT ON THE FRONT WILL FLASH BASED ON THE SELECTION. THE SELECTIONS ARE IN SERIES, MEANING, FOR EXAMPLE, IF YOU ARE ON SELECTION 5 YOU CAN COME BACK LATER AND PRESS IT AGAIN TO MOVE YOU TO 6, 7, 8, 1, 2, ETC... THE SETTING BUTTON IS LOCATED FRONT OF THE TRANSMITTER NEXT TO THE MICRO USB PORT. THE INDICATOR LIGHT IS NEXT TO THE BUTTON.

INSTALLATION OF THE EXTENDERS AND CONNECTION ORDER:

- 1) PLUG IN THE PROVIDED ORANGE 2 PIN POWER CONNECTOR INTO BOTH THE TRANSMITTER AND RECEIVER. BOTH MUST BE POWERED FOR THE SYSTEM TO FUNCTION.**
- 2) ENSURE THE FIBER IS TERMINATED WITH LC SFP CONNECTORS.**
- 3) THE TRANSMITTER AND RECEIVER WILL HAVE LC SFP PORTS. PLUG THE FIBER FROM THE TRANSMITTER TO THE RECEIVER.**
- 4) THE RECEIVER HAS AN HDMI OUTPUT. CONNECT THIS TO THE INPUT OF THE DISPLAY WITH AN 18GBPS HDMI CABLE.**
- 5) THE TRANSMITTER HAS AN HDMI INPUT. CONNECT THIS TO THE OUTPUT OF THE SOURCE WITH AN 18GBPS HDMI CABLE.**

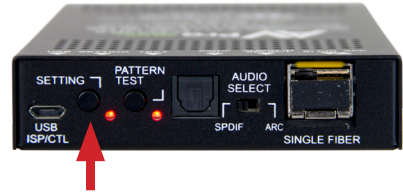
CONNECTION DIAGRAM



EDID MANAGEMENT:

QUICK PRESS THE SETTINGS BUTTON TO SELECT DESIRED EDID SETTING.

1. EDID BYPASS --- LED FLASHES 1 TIME (DEFAULT, FROM DOWNSTREAM DEVICE)
2. 1080P_2CH --- LED FLASHES 2 TIMES
3. 1080P_8CH --- LED FLASHES 3 TIMES
4. 4K60HZY420_3D_2CH --- LED FLASHES 4 TIMES
5. 4K60HZY420_3D_8CH --- LED FLASHES 5 TIMES
6. 4K60HZ_3D_2CH_HDR --- LED FLASHES 6 TIMES
7. 4K60HZ_3D_8CH_HDR --- LED FLASHES 7 TIMES
8. USER EDID --- LED FLASHES 8 TIMES



WHILE IN THE USER EDID STATE (8), PRESS AND HOLD THE SETTING BUTTON (FOR 4 SECONDS) IN ORDER TO COPY THE EDID FROM THE CONNECTED DISPLAY OR DOWNSTREAM DEVICE TO THE USER EDID AND IT WILL APPLY AUTOMATICALLY.

WHY DO THIS?

THIS IS USED WHEN THERE IS A NEED FOR A SPECIFIC, KNOWN EDID THAT THE INSTALLER MAY PREFER. IT CAN ALSO BE USED IF YOU WANT TO BYPASS AN EDID OF AN AVR OR ANOTHER CONNECTED DEVICE.

SCALER SETTING:

WHILE IN ANY SETTING BESIDES THE USER EDID, PRESS AND HOLD THE SETTING BUTTON (FOR 4 SECONDS) TO TOGGLE THE SCALER MODE.

THE OPTIONS ARE:

1. NORMAL MODE (ICT MODE) --- LED FLASHES 1 TIME
2. DOWN SCALER MODE (4K->2K) --- LED FLASHES 2 TIME

RS-232 CONFIGURATION

RS-232 CAN BE USED TO PASS CONTROL SIGNALS BI-DIRECTIONALLY TO & FROM ANY RS-232 COMPATIBLE DEVICE. THIS IS COMMONLY USED TO ROUTE CONTROL SIGNALS IN THE FOLLOWING WAY:

1. CONTROL SYSTEM --> DISPLAY/PROJECTOR (I.E., POWER ON/OFF)
2. DISPLAY/PROJECTOR --> CONTROL SYSTEM (I.E., DISPLAY STATUS, VOLUME STATUS ETC...)
3. WHEN ULTRA LONG-RANGE SERIAL COMMUNICATION IS NEEDED (THINK CONCERTS, LIVE EVENTS). USE THE EXTENDER.

IR CONFIGURATION

IR CAN BE USED IN THREE WAYS:

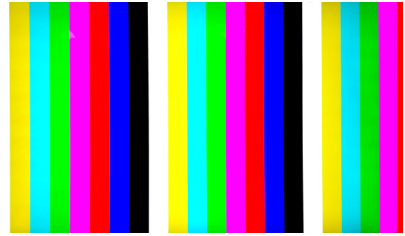
1. FROM RACK (CONTROL SYSTEM DIRECT): PLUG A 3.5MM CABLE INTO AN EMITTER PORT OF ANY CONTROL SYSTEM DIRECTLY INTO THE "IR IN" PORT ON THE AC-EXO-444 TRANSMITTER TO PASS IR SIGNALS DIRECTLY TO THE REMOTE END. NOTE - BE SURE THE IR MODE SLIDE SWITCH IS SET TO "I-PASS" ON THE TRANSMITTER

2. FROM RACK (USING IR-EYE): PLUG AN IR-RECEIVER EYE INTO THE "IR IN" OF THE AC-EXO-444 TRANSMITTER IN ORDER TO PASS INFRARED SIGNALS GENERATED FROM A DEVICE OR IR REMOTE. NOTE - BE SURE THE IR MODE SLIDE SWITCH IS SET TO "IR-EYE" ON THE TRANSMITTER.
3. FROM REMOTE END: USE AN IR-RECEIVER EYE ON THE AC-EXO-444 RECEIVER (IR IN PORT) IN ORDER TO SEND IR SIGNALS BACK TO THE RACK AND OUT OF THE TRANSMITTER IR OUT PORT WITH AN EMITTER.

TEST PATTERN

ONCE EVERYTHING IS CONNECTED PRESS THE PATTERN TEST BUTTON ON THE RECEIVER. A 1080P 60HZ TEST PATTERN WILL SHOW ON THE DISPLAY. ENSURE THE DISPLAY IS TURNED ON.

THIS CAN BE USEFUL FOR CHECKING YOUR CABLING AND FOR TROUBLESHOOTING.



1080P TEST PATTERN

TROUBLESHOOTING

VERIFY POWER- MUST POWER FROM BOTH SIDES

VERIFY CONNECTIONS - CHECK THAT ALL CABLES ARE PROPERLY CONNECTED

NOT PASSING VIDEO - YOU CAN USE THE BUILT IN TEST PATTERN GENERATOR TO VERIFY SIGNAL FROM THE TX TO THE DISPLAY

EXTRACTED AUDIO ISSUES - VERIFY AUDIO SETTINGS

IR ISSUES - VERIFY CORRECT CONNECTIONS AND SETTINGS

*NOTE: VISIBLY FLASHING EMITTERS MAY NOT FUNCTION PROPERLY, TRY THE IR CABLES THAT COME WITH THE KIT

IF YOU ARE STILL HAVING ISSUES AFTER TROUBLESHOOTING, FEEL FREE TO CONTACT OUR TECH SUPPORT DEPARTMENT.

**HAVE A QUESTION OR NEED ASSISTANCE?
DON'T HESITATE TO CONTACT US!**

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