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CABLES & ACCESSORIES**

## PRODUCT MANUAL

Model: FO-HDM2-T4K-SET



**4K@60Hz HDMI 2.0 FIBER EXTENDER  
with Audio Support (IR/RS232/ARC/OPTICAL)**

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## SECTION I : GETTING STARTED

### 1.1 IMPORTANT SAFEGUARDS

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

Avenview warranty certificate please refer to page #23

**Warranty does not include:**

- Any product on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - Repair or attempted repair by anyone not authorized by us.
  - Any damage of the product due to shipment.
  - Removal or installation of the product.
  - Causes external to the product, such as electric power fluctuation or failure.
  - Use of supplies or parts not meeting our specifications.
  - Normal wear and tear.
  - Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

### 1.2 SAFETY GUIDELINES

The FO-HDM2-T4K-SET, 4K@60Hz HDMI 2.0 FIBER EXTENDER with Audio Support (IR/RS232/ARC/OPTICAL) has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the FO-HDM2-T4K-SET should be used with care. Read the following safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- ⚠ Do not dismantle the housing or modify the module.
- ⚠ Dismantling the housing or modifying the module may result in electrical shock or burn.
- ⚠ Refer all servicing to qualified service personnel.
- ⚠ Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards.
- ⚠ Keep the device away from liquids.
- ⚠ Spillage onto the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- ⚠ If the unit appears damaged, have the module checked by a qualified service engineer before using it again.
- ⚠ Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



## 1.3 REGULATORY NOTICES FEDERAL COMMUNICATIONS COMMISSION (FCC)

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Avenview is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment.

| Warning Symbols  | Description  |
|--|--|
|     | <p>ONLY USE THE PROVIDED POWER CABLE OR POWER ADAPTER SUPPLIED. DO NOT TAMPER WITH THE ELECTRICAL PARTS. THIS MAY RESULT IN ELECTRICAL SHOCK OR BURN.</p>          |
|    | <p>THIS WARNING SYMBOL MEANS DANGER. WHEN THIS SYMBOL IS PLACED, YOU ARE IN AN ENVIRONMENT THAT CAN CAUSE BODILY INJURY.</p>                                       |
|   | <p>DO NOT TAMPER WITH THE UNIT. DOING SO WILL VOID THE WARRANTY AND CONTINUED USE OF THE PRODUCT.</p>  |
|   | <p>THE CIRCUIT BOARDS ARE VERY SENSITIVE TO STATIC DISCHARGE. PLEASE ENSURE IF RACK MOUNTED OR INSTALLED ON A SURFACE, IT SHOULD BE IN A GROUNDED ENVIRONMENT.</p> |
|  |  |



## 2. INTRODUCTION

Avenview's FO-HDM2-T4K-SET HDMI 4K Fiber optic Extender set over LC SFP Port has been designed to extend 4K@60Hz 18GBPS Content over 300 Meters using Multimode fiber and up to 2KM using Single Mode Fiber. This unit includes two (2) units: Sender unit (TX) FO-HDM2-T4K-S and Receiver unit (RX) FO-HDM2-T4K-R.

The FO-HDM2-T4K-SET supports 4K 18 Gbps content from source to display. Video resolution supported is 4K@60 Hz (4096x2160), 4k2k@60 (UHD 3840x2160) , 3D and full HD 1080p@60 Hz. The slim box type design can be easily installed in any environment, behind the monitor and rack mounted on a rack shelf; this compact design gives the installer and user a complete solution with the new trends in rack-mounted 4K sources streaming, network connected devices and new demand for Smart TV, ultra HD monitors,, and content.

The FO-HDM2-T4K-SET finds its way into market sectors such as Medical, Education, command & control environments and any long distance extension application.

### Features

- Support HDMI 2.0(a/b), HDCP 2.2 (& backward compatible).
- 300m (1000ft) on full 4K (Multi-mode OM3).
- 300m (1000ft) on full 4K (Multi-mode OM2 selective cables)
- High Bandwidth support over 18Gbps.
- Resolution up to 4K60 4:4:4 DCI/UHD(4096x2160/3840x2160).
- Support HDR, HDR10+ and HLG (HDR 10 & 12 Bit).
- Dolby Vision, 3D Support.
- Down-scaling for mixed systems 4K to 1080P.
- EDID Management and EDID emulate.
- Built-In 4K & HD Test Patterns for troubleshooting Tx and Rx..
- Audio Extraction-Toslink Multichannel, ARC (Toslink or HDMI).
- Supports uncompressed PCM 2- Ch., LPCM 5.1 & 7.1, Dolby.
- Digital, DTS, Dolby TrueHD, DTS HD-Master, Atmos(On HDMI).
- Bi Directional IR Passthrough, RS-232, CEC Pass Through.
- Single LC Connector Type.
- Removable/changeable SFP for even longer distances.



## 2.1 PACKAGE CONTENTS

Before you start the installation of the FO-HDM2-T4K-SET, please ensure that the packaging has the listed items below.

| # | ITEM  | QTY            |   |
|---|---|----------------|---|
| 1 | FO-HDM2-T4K-SET   | x1             |    |
| 2 | POWER ADAPTER (48V / .5A)<br>*US C7 POWER CORD<br>*Based on order request | x2<br>x2       |     |
| 3 | IR RECEIVER<br>IR TRANSMITTER<br>MOUNTING EARS                            | x1<br>x1<br>x1 |    |
| 4 | PRODUCT USER MANUAL   | x1             |  |

## 2.2 BEFORE INSTALLATION

### ATTENTION

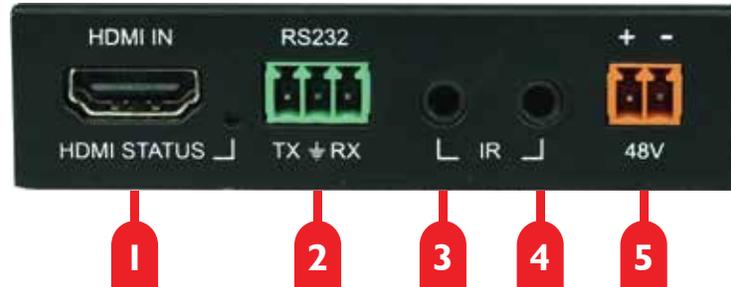
- To prevent airflow restriction, allow clearance around the ventilation openings to be at least: ONE Inch (25.4 mm).
- Unauthorized changes or modifications could void the user's authority to operate the equipment.
- Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.
- Place the product on an even and stable surface. If the product falls, it may cause an injury to a person or malfunction.
- Do not place the product in high temperatures (over 50°C), or low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force ends of the UTP /HDMI cable. It can cause malfunction.
- Keep the device away from water. If the unit becomes wet, power off immediately.
- Installation of the equipment must comply with local and national electrical codes.
- Take care when connecting units to the electrical power circuit, incase the maximum rated circuit is not overloaded





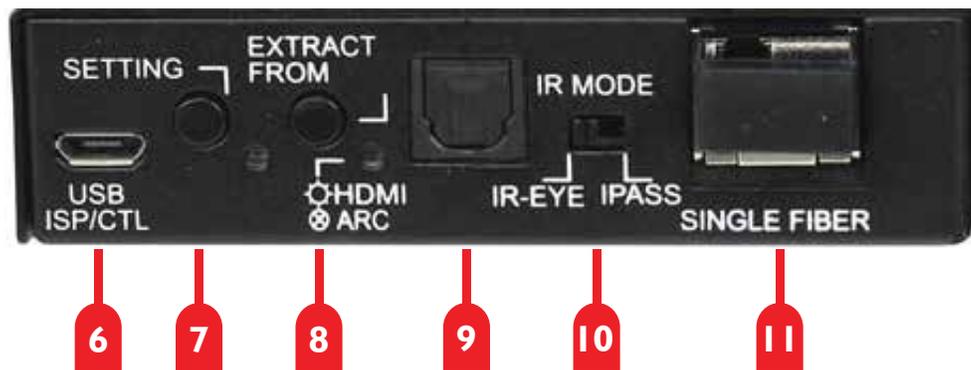
## 2.4 PANEL DESCRIPTION

### 2.4.1 FO-HDM2-T4K Transmitter Front



|   |  |
|---|--|
| <p><b>1. HDMI IN:</b> Connect HDMI input source via HDMI Male to Male cable.</p>  | <p><b>5. 48V:</b> Power connection for the power supply.</p> |
| <p><b>2. RS232:</b> Connect to a device that has the ability to send/receive RS232 control commands;TX,GND,RX (L to R).</p> |  |
| <p><b>3. IR IN:</b> 3.5mm Female input used for IR commands.</p>  |  |
| <p><b>4. IR OUT:</b> 3.5mm Female output used for IR commands.</p>  |  |

### 2.4.2 FO-HDM2-T4K Transmitter Rear

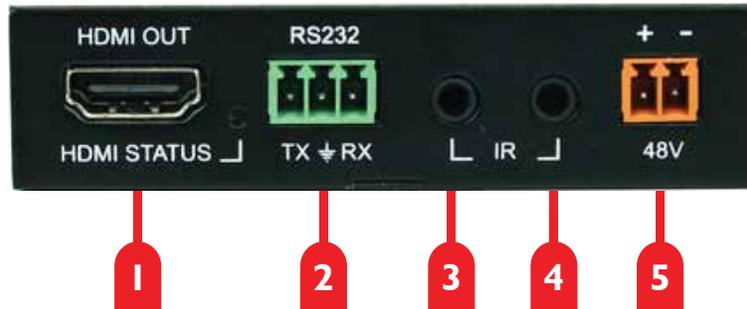


|   |   |
|---|---|
| <p><b>6. USB ISP/CTL:</b> Micro USB port for service purposes.</p>            | <p><b>10. IR MODE:</b> Select preferred IR mode.</p>              |
| <p><b>7. SETTING:</b> Pressed to select different setting options.</p>        | <p><b>11. SINGLE FIBER:</b> Connection for fiber optic cable.</p> |
| <p><b>8. EXTRACT FROM:</b> Select where the Toslink audio get the signal.</p> |   |
| <p><b>9. SPDIF OUT:</b> Optical output used for audio pass through.</p>       |   |



## 2.4 PANEL DESCRIPTION (Cont)

### 2.4.3 FO-HDM2-T4K Receiver Front



|   |  |
|---|--|
| <p><b>1. HDMI OUT:</b> Connect HDMI display via HDMI Male to Male cable.</p>  | <p><b>5. 48V:</b> Power connection for the power supply.</p> |
| <p><b>2. RS232:</b> Connect to a device that has the ability to send/receive RS232 control commands;TX,GND,RX (L to R).</p> |  |
| <p><b>3. IR IN:</b> 3.5mm Female input used for IR commands.</p>  |  |
| <p><b>4. IR OUT:</b> 3.5mm Female output used for IR commands.</p>  |  |

### 2.4.4 FO-HDM2-T4K Receiver Rear



|   |  |
|---|--|
| <p><b>6. USB ISP/CTL:</b> Micro USB port for service purposes.</p>                    | <p><b>10. AUDIO SELECT:</b> Select where audio will come from.</p> |
| <p><b>7. SETTING:</b> Pressed to select different setting options.</p>                | <p><b>11. SINGLE FIBER:</b> Connection for fiber optic cable.</p>  |
| <p><b>8. PATTERN TEST:</b> Generates a test pattern for on board troubleshooting.</p> |  |
| <p><b>9. SPDIF IN:</b> Optical input used for audio pass through.</p>                 |  |



### ATTENTION

- To prevent airflow restriction, allow clearance around the ventilation openings to be at least: 24 Inches (610mm).
- Unauthorized changes or modifications could void the user's authority to operate the equipment.
- Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.
- Place the product on an even and stable surface. If the product falls, it may cause an injury to a person or malfunction.
- Do not place the product in high temperatures (over 50°C), or low temperature (under 0°C) or high humidity.
- Use the power supply with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force the ends of the UTP /HDMI cable. It can cause malfunction.
- Keep the device away from water. If the unit becomes wet, power off immediately.
- Installation of the equipment must comply with local and national electrical codes.
- Take care when connecting units to the electrical power circuit in case the maximum rated circuit is not overloaded

*Note: The Transmitter and the Receiver modules must be connected to the included power supplies for proper operation.  
**Transmitter module must be powered on first.***



## 3.1 CABLE SPECIFICATIONS



We highly recommend achieving best results with our FO-HDM2-T4K-SET you acquire a high quality 26 or 24 AWG HDMI cable with the below specifications to maintain signal integrity and distances.

### Features

- HDMI 2.0(a/b)
- Beyond 18Gbps Bandwidth Support (Using ICT)
- Up to 4K60 4:4:4 Support
- Full HDR Support (HDR 10 & 12 Bit)
- HDR, HDR10+ and HLG Support
- Dolby Vision Support
- 4K --> 1080P Down-scaling for mixed systems
- EDID Management and EDID emulate
- 4K & HD Test Patterns built into Tx and Rx for troubleshooting
- Toslink Multichannel Audio Extraction
- ARC Support (Toslink or HDMI)
- HDCP 2.2 (and all earlier versions supported)
- CEC Pass Through
- 3D Support
- 300m (1000ft) on full 4K (Multi-mode OM3)
- 2km (1.25 Miles) on full 4K (Single-mode Fiber)
- HDCP 2.2 & Earlier
- Bi Directional IR Passthrough
- Bi Directional RS232 Transport
- I-Pass Feature for control system "pass-through"
- 3-20v protection circuit built in for safe IR transport
- LED Status, Link, Power indication lights
- Use single fiber optic cable (Multi-mode or Single-mode)
- Removable/changeable SFP for even longer distances
- Supports uncompressed PCM 2- Ch., LPCM 5.1 & 7.1, Dolby Digital, DTS, Dolby TrueHD, DTS HD-Master Audio, Atmos (On HDMI)
- ESD protection circuitry (Inputs & Outputs) to 7KV
- Can Cascade
- Single LC Connector Type



## 4. INSTALLATION

This product is composed of a Transmitter and a Receiver.

The Transmitter should be connected to the source (Computer's HDMI Port/IR Signal/RS-232) and the Receiver should be connected to the HDMI of the digital display device (Monitor/TV). Avenview FO-HDM2-T4K-SET Transmitter / Receiver is designed to be used with SC type standard optical cable (Multi-Mode or Single-Mode optical fiber)

### 4.1 TRANSMITTER - DEVICE FUNCTIONS

#### 4.1.2 - IR Mode

The IR mode slide switch on the front of the FO-HDM2-T4K-S transmitter is used to select the preferred IR mode. The two modes are listed below, please note the default mode is IR-EYE:

- 1. IR-EYE** - The IR Input will be configured to operate with an IR Receiver Eye.
- 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 with a specification of 3v-20v.



#### 4.1.3 - 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 (listed below), you can come back later and press it again to move you to 6, 7, 8, 1, 2, etc. The indicator light is directly next to the button.

**EDID Management:** Quick press to select EDID.

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.

This is commonly 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. (IE, plug the extender kit directly into a display and COPY the EDID. Plug it back into an AVR that may not have a current/good EDID).

#### 4.1.4 - Scaler Setting

While in ANY state besides the USER EDID state, press and hold the setting button (for 4 seconds) to toggle the scaler mode. The options are:

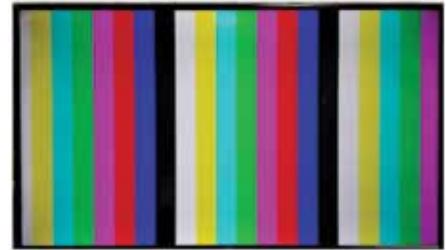
1. Normal Mode(ICT Mode) --- LED Flashes 1 Time
2. Down Scaler Mode (4K->2K) --- LED Flashes 2 Times

#### 4.1.5 - Test Pattern Generator

Press and hold the setting button (for 4 seconds) while powering up the transmitter. You should see the color bar pattern like the picture to the right. When in this mode, you can quick press to toggle the resolution.

Quick press the setting button - Select the test pattern timing:

1. 1080P - LED Flashes 1 Time (3 sets of color bars)
2. 4K - LED Flashes 2 Times (5 sets of color bars)



This can be useful for checking your cabling and for troubleshooting. You can also ensure you have sufficient distance based on the resolution as well.

#### 4.1.6 - Extract From

Using the “Extract From” function allows you to select where the Toslink audio output gets its signal. There are two options:

1. Extract from HDMI - The RED light will be on. Audio will be extracted from the local HDMI input plugged into the transmitter. 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.

2. Extract From ARC (Audio Return Channel) - The RED light will be off. In this mode the audio will come the audio input on the receiver unit, the receiver can be set to HDMI ARC or Toslink (see the receiver section of the manual for more). The supported formats are 2CH PCM, 6CH/7CH LPCM, DTS 5.1, Dolby Digital, Dolby Digital Plus. No down-mix, pass through only. Please use a UNIVERSAL DIGITAL/ANALOG AUDIO CONVERTER FOR DOWN MIXING.

• NOTE: When "ARC" is selected on both Tx and Rx the HDMI ARC is open for appropriate devices. ie, you can plug into an AVR with ARC and a TV with ARC and get support via the HDMI Cable. The button looks like this:



## 4.1.7 TROUBLESHOOTING TRANSMITTER

**POWER - On the front (Setting Light):** (Red) the setting light doubles as the POWER indicator. 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 STATUS - On the back (By HDMI Port):** (Blue) This indicator shows that the HDMI Source is connected. The states are:

- Light Is On (Solid) = Sync w/ HDMI source is correct and solid.
- Light Is Flashing = The light flashes during the sync process. If it is flashing continuously, a picture may not be present
- Light Is Off = User can try and check the following below:

If the red HDMI signal status light is flashing or off, check the following:

- The source. Plug it directly into the display to be sure it's functioning properly.
- Try a longer HDMI cable. Some HDMI cables do not sync well at shorter lengths.
- Set the EDID to state #1 (Please use a UNIVERSAL DIGITAL/ANALOG AUDIO CONVERTER FOR DOWN MIXING).
- If these suggestions do not work, enable the "Test Pattern" (Please use a UNIVERSAL DIGITAL/ANALOG AUDIO CONVERTER FOR DOWN MIXING). If you see the pattern, the problem is between the source and the transmitter, please try a different source.
- Contact Avenview support if these suggestions do not work.



## 4.2 RECEIVER - DEVICE FUNCTIONS

### 4.2.1 - Audio Select

The audio select slide switch is used to select where ARC will come from. There are two modes, see below:

**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. No down-mix, pass through only. Please see the AC-ADM-COTO for down-mixing.

- In this mode the SPDIF Input is inactive.
- To use ARC via HDMI, make sure ARC is 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.

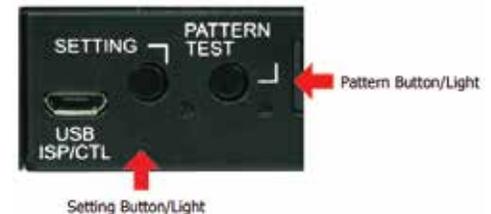


**2. SPDIF (Recommended)** - The audio sent back to the transmitter will be from the SPDIF input. The supported formats are 2CH PCM, 6CH/7CH LPCM, DTS 5.1, Dolby Digital, Dolby Digital Plus. No down-mix, pass through only. Please see the UNIVERSAL DIGITAL/ANALOG AUDIO CONVERTER CHANGE THIS THROUGHOUT THE USER GUIDE for downmixing.

NOTE - On the Tx, you can retrieve the signal from HDMI or SPDIF Toslink

### 4.2.2 - Setting Button

The setting button can be pressed when the "Pattern" is enabled to toggle between 1080P and 4K Test Patterns. The setting button is located front of the transmitter next to the micro USB port. The indicator light is directly next to the button.



### 4.2.3 - Test Pattern Generator

Press "Pattern" button on the receiver to enter pattern mode. The light will turn RED when enabled. The color bar pattern, as seen to the right will appear. When in this mode, you can short press "Setting" to toggle the resolution.

Quick press "Setting Button" - Select the test pattern timing:

1. 1080P --- LED Flashes 1 Time (3 Sets of color bars)
2. 4K --- LED Flashes 2 Time (5 sets of color bars)

This is useful for checking cabling and for troubleshooting. It will check the link between the Rx and the display/sink.



## 4.2.4 TROUBLESHOOTING RECEIVER

**POWER - On the front (Setting Light): (Red)** the setting light doubles as the POWER indicator. 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 STATUS - On the back (By HDMI Port): (Red)** 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.
- Light Is Off = HDMI is not communicating - Please check the cables.

If the red HDMI signal status light is flashing or off, check the following:

- The source. Plug it directly into the display to be sure it's functioning properly.
- Try a longer HDMI cable. Some HDMI cables do not sync well at shorter lengths.
- Try Cascade Mode (See below).
- If these suggestions do not work, enable the "Test Pattern" (See Below). If you see the pattern, the problem is between the Receiver and display/sink please try a different sink input or HDMI cable.
- Contact Avenview support if these suggestions do not work.

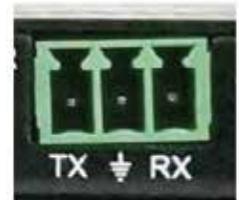


## 4.3 RS-232 Configuration

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 (ie, Power On/Off)
2. **Display/Projector** --> Control System (ie, Display Status, Volume Status etc...)
3. When ultra long-range serial communication is needed (think concerts, live events). Use the extender.

The unit comes with 3 pin connectors to allow for any wire an integrator would like. The pin out configuration Left=TX, Center=Ground, Right=RX and looks like this:



This is how the cable should look. If using the AC-CABLE-3.5-DB9F (Female) or AC-CABLE-3.5-DB9M (Male), the colors will be the same. With any other cable, please follow Tx, G, Rx (See Fig. 4.3.A). A RS-232 cable preparation diagram is on the next page.



Fig. 4.3.A

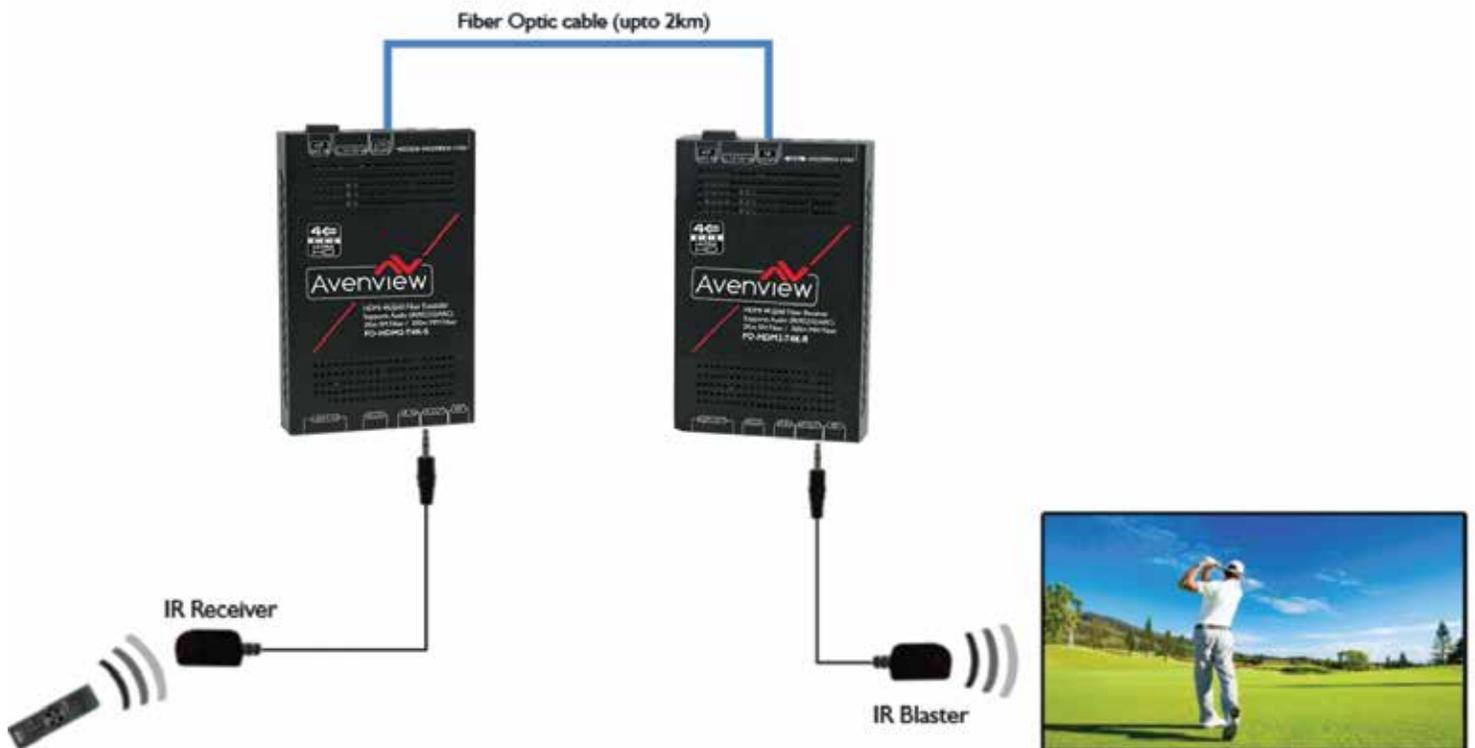


## 4.4 IR CONFIGURATION

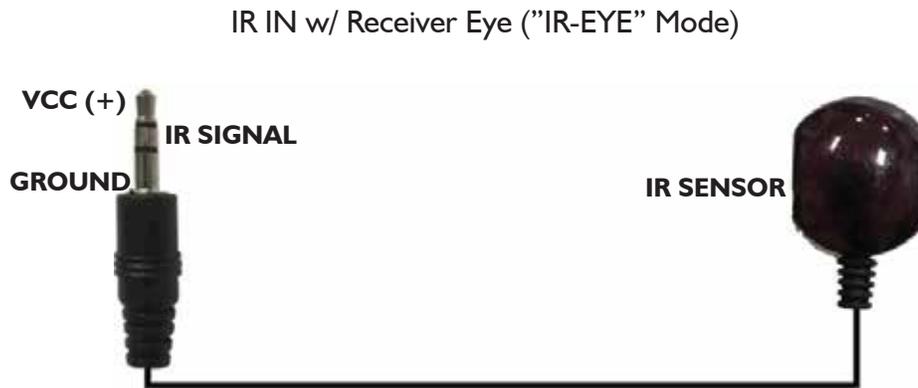
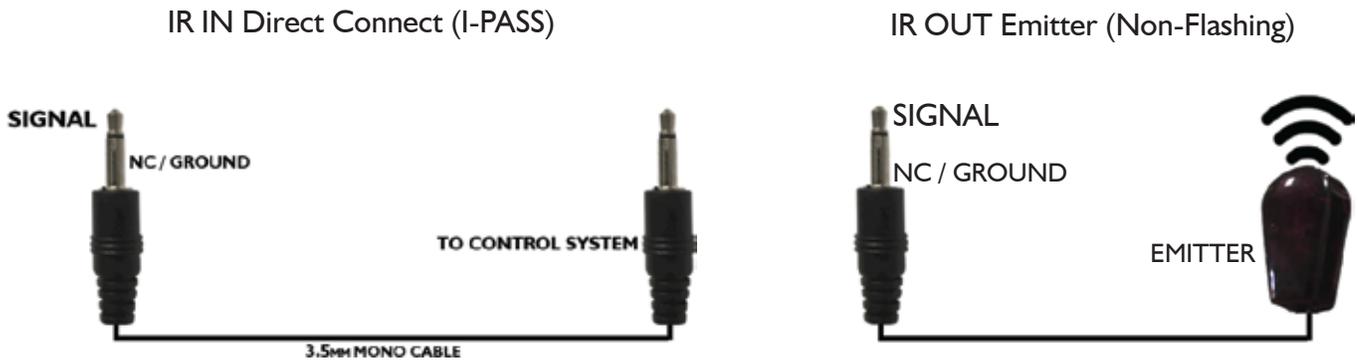
**1. From Rack (Control System Direct):** Plug a MONO 3.5mm cable into an emitter port of any control system directly into the "IR IN" port on the FO-HDM2-T4K-T Transmitter to pass IR signals directly to the remote end. NOTE - Be sure the IR MODE Slide Switch is set to "I-PASS" on the Transmitter.

**2. From Rack (Using IR-EYE):** Plug an IR-Receiver Eye into the "IR IN" of the FO-HDM2-T4K-T 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 FO-HDM2-T4K-R 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.



## 4.4.1 IR Connections to FO-HDM2-T4K-T (Transmitter)



## 4.4.2 IR Connections to FO-HDM2-T4K-R (Receiver)



## 5. SPECIFICATIONS

| ITEM                          | DESCRIPTION                  |                             |
|-------------------------------|------------------------------|-----------------------------|
| <b>MODEL</b>                  | FO-HDM2-T4K-T                | FO-HDM2-T4K-R               |
| <b>UNIT DESCRIPTION</b>       | IR/HDMI Extender Transmitter | IR/HDMI Extender Receiver   |
| <b>INPUT VIDEO PORT</b>       | HDMI/RS232/IR                | Fiber Optic                 |
| <b>INPUT RESOLUTION</b>       | Up to 4K (4096X2160) @ 60Hz  | Up to 4K (4096X2160) @ 60Hz |
| <b>OUTPUT VIDEO PORT</b>      | Fiber Optic                  | HDMI/RS232/IR               |
| <b>OUTPUT RESOLUTION</b>      | Up to 4K (4096X2160) @ 60Hz  | Up to 4K (4096X2160) @ 60Hz |
| <b>DIMENSIONS (L x W x H)</b> | 5.1" X 3.25" X 0.8"          | 5.1" X 3.25" X 0.8"         |
| <b>POWER SUPPLY</b>           | 48V                          | 48V                         |

### OPTICAL

|                       |  |
|-----------------------|--|
| <b>OPTICAL SOURCE</b> | 850nm VCSEI  |
| <b>O/E CONVERTER</b>  | PIN Photo Diode  |
| <b>FIBER</b>          | Multi-Mode optical fiber (SC Type Connector)                 |
| <b>FIBER TYPE</b>     | 50/125 $\mu$ m Multi-mode glass fiber OM2 or OM3 rated fiber |

### ENVIRONMENT

|                              |                             |
|------------------------------|-----------------------------|
| <b>OPERATING TEMPERATURE</b> | 32° ~ 104°F (0° to 40°C)    |
| <b>STORAGE TEMPERATURE</b>   | -4° ~ 140°F (-20° ~ 60°C)   |
| <b>RELATIVE HUMIDITY</b>     | 20~90% RH (no condensation) |



## 5.1 CABLE SPECIFICATIONS (CONT)

To achieve the best results with your FO-HDM2-T4K-SET, Avenview highly recommends using Premium High Speed HDMI Cables or Premium High Speed HDMI Cables with Ethernet. Cables certified as Premium High Speed are individually tested for performance and will carry a special anti-counterfeit label to differentiate them from other HDMI cables.

Premium High Speed Certified HDMI Cables with full 18Gbps 4K (End to End) HDMI Cables support full UHD with Deep Color and High Dynamic Range support . These next generation 4K HDMI cables are also the ONLY HDMI cables specifically designed for systems integrators, corporate, government, medical and other demanding business environments.

Performance features: full UltraHD 4K@60Hz 4:4:4 chroma sampling and 18Gbps bandwidth rating (End to End), integration with exclusive commercial features: advanced active chip technology to deliver a full 4K 18Gb signal with 4:4:4 Color Space signal.



### Specifications

Connector Type 1: HDMI A Male  
Connector Type 2: HDMI A Male  
Bandwidth: 18Gbps (End to End), HDR Support  
Resolution: 4K@60Hz 4:4:4  
Gauge: Up to 15ft: 26AWG. 20ft and up: 24AWG,  
Please note: Lengths 25ft, 35ft, 50ft are active and directional  
Center Conductor: 99.9% High Purity Copper  
Connector Finish: 24K Gold Plated  
Shielding: Inner 100% Aluminum Mylar Wrap,  
Outer 100% Aluminum Mylar Wrap, 85% Tinned Copper Braid  
Cable Outer Diameter: 0.33" (8.5 mm)  
Jacket Type: PVC  
Supports High Dynamic Range (HDR)  
Supports Deep Color and x.v. Color

HDMI ATC Certified: Yes  
HDCP and CEC Compliant: Yes  
Category 2 Certified: Yes  
Ethernet Capability: Yes  
Supports Audio Return Channel: Yes  
3D Ready: Yes  
Longer Distance Capability: Yes  
UL Rated: Yes  
UL Rating: CL3  
RoHS Compliant: Yes  
Temperature Rating: 75 deg C  
Voltage: 30V



## Avenview Warranty Certificate

AVENVIEW CORP ("Avenview") warrants Avenview-branded product(s) contained in the original packaging against defects in materials and workmanship when used normally in accordance with Avenview's enclosed manual guidelines for a period of THREE (3) YEARS from the date of original retail purchase - Warranty Period. Avenview's published guidelines include but are not limited to information contained in technical specifications, user manuals and service communications.

**LABOR:** During the Warranty Period of THREE (3) YEARS, Avenview will repair or replace the product(s) at no cost using new or used parts equivalent to novel performance and reliability if the product(s) is determined to have abide by Avenview's published guidelines. Cost of Labor applicable to product(s) after Warranty Period. For labor costs, please contact [support@avenview.com](mailto:support@avenview.com).

**PARTS:** During the Warranty Period of THREE (3) YEARS, Avenview will supply new or rebuilt replacements in exchange for defective parts of the product(s) at no cost if the product(s) is determined to have abide by Avenview's published guidelines. Cost of Parts applicable to product(s) after Warranty Period. For part(s) costs, please contact [support@avenview.com](mailto:support@avenview.com).

To obtain Warranty: (a) proof of purchase in the form of a bill of sale or receipted invoice reflecting that the registered product(s) is within warranty period must be presented to obtain warranty service; (b) product(s) must be registered at time of purchase. Failure to do so will result in applicable parts and labor charges. Returning product(s) must be shipped in Avenview's original packaging or in packaging pertaining equal degree of protection to Avenview's products. Both Avenview and purchaser are responsible for freight charges and brokerage fees when shipping the product(s) to the receiver.

### NOT COVERED BY THIS WARRANTY

This warranty does not apply to any non-Avenview branded product(s); non-registered Avenview product(s). This warranty does not apply: (a) to cosmetic damage, including but not limited to scratches, dents and broken cords; (b) to damage caused by use with another product; (c) to damage caused by accident, abuse, misuse, liquid contact, fire, earthquake or other external cause; (d) to damage caused by operating the Avenview product(s) outside Avenview's manuals or guidelines; (e) to damage caused by service performed by anyone who is not a representative of Avenview or an Avenview authorized personnel; (f) to defects caused by normal wear and tear or otherwise due to the normal aging of the Avenview product(s); or (g) if any serial number or void stickers has been removed or defaced from the Avenview product(s).

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Control Your Video

## TECHNICAL SUPPORT

### CONTACT US



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