



## HDM-C6IP-SET-V2

HDMI LAN Extender with IR up to 120m  
over Single CAT 6



# USER GUIDE

## PRODUCT APPLICATION & MARKET SECTORS



Corporate



Military



Education



Medical



House of Worship



Residential



Industrial



Aviation

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## 1.1 IMPORTANT SAFEGUARDS

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

### What the warranty does not cover

- ⊕ 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 INSTRUCTIONS

The Avenview HDM-C6IP-SET-V2, HDMI Extender has been tested for conformity to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment's, the HDM-C6IP-SET-V2 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 module away from liquids.
- ⚠ Spillage into 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.
- ⚠ 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)

This equipment has been tested and found to comply with part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

Warning symbols	Description
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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.



DO NOT TAMPER WITH THE UNIT. DOING SO WILL VOID THE WARRANTY AND CONTINUED USE OF THE PRODUCT.



THE VIDEO BOARDS ARE VERY SENSITIVE TO STATIC. PLEASE ENSURE IF RACK MOUNTED OR INSTALLED ON A SURFACE, IT SHOULD BE IN A GROUNDED ENVIROMENT.



## SECTION 2: INTRODUCTION



The HDM-C6IP-SET-V2 HDMI extender set is designed to extend your HD display with resolutions up to 1080p/60Hz to a distance of up to 394 feet (120 meters) with IR passthrough from your HDMI source over a single network cable. Using standard TCP/IP transmission, this extender can deliver high definition video over structured cabling in a variety of installation scenarios including one-to-one, one-to-many through a 100Mbps network switch, or via cascaded switches for larger deployments.

See below three examples:

- A:** The Tx and Rx units can extend 1080p HDMI up to 120 meters over a single Cat6 (or above) cable in a point-to-point configuration.
- B:** The Tx can be connected to a 100Mbps network switch to send 1080p video signals to multiple Rx units connected to the same switch and their respective HDMI displays, forming a one-to-many distribution system.
- C:** Multiple Tx units can be connected into a network using switch cascading so that 1080p video signals can be routed to multiple Rx units connected across the switches, allowing flexible extension and distribution topologies.
  - Extends 1080p HDMI up to 120m over Cat6 (up to 100m over Cat5e, 80m over Cat5).
  - Supports HDMI 1.3, HDCP 1.4, and EDID-compatible operation for broad device interoperability.
  - Supports HD video resolutions up to 1920x1200@60Hz, including 1080p, 720p, and other common PC and HDTV formats.
  - Supports point-to-point, one-to-many, and switch cascade connection types over standard 100Mbps network switches.
  - Supports IR passthrough(20–60 kHz) for remote control of the source device from the display side using IR extension cables.
  - Transmission latency of approximately 80–130 ms for high-definition, low-latency video transport.
  - Compatible with Cat5/5e/6 or above cables following IEEE-568B standard wiring, with recommended Cat6 for maximum distance of 120 meters.
  - Each extender set includes dedicated DC 5V/0.5A power supplies for both transmitter and receiver to ensure stable operation.

### 2.1

#### PACKAGE CONTENTS



HDMI EXTENDER sender TX  
× 1 pcs



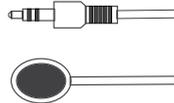
HDMI EXTENDER receiver RX  
× 1 pcs



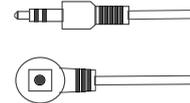
DC5V/0.5A  
× 2 pcs



User Manual  
× 1 pcs



IR blaster extension cable  
× 1 pcs



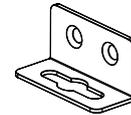
IR receiver extension cable  
× 1 pcs



Screw  
× 10 pcs



Grounding Screw  
× 2 pcs



Mounting ear  
× 4 pcs

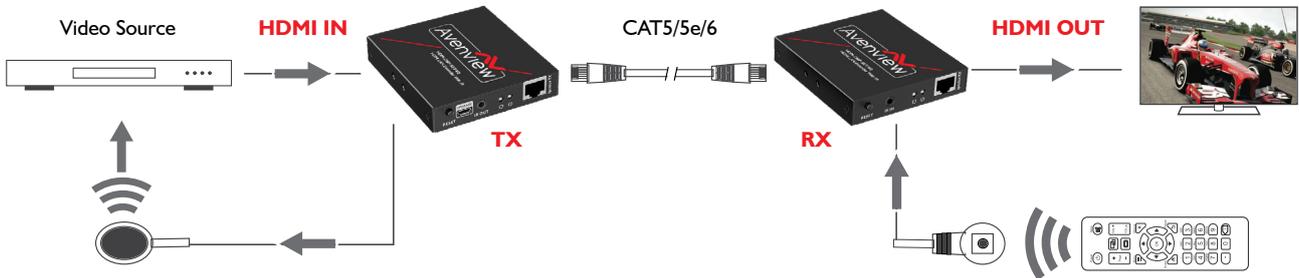
### 2.2

#### BEFORE INSTALLATION

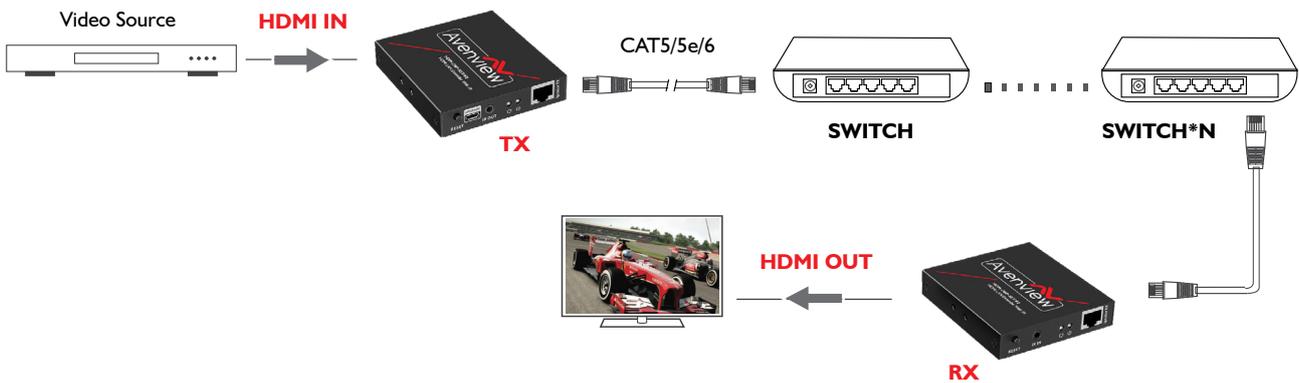
- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.

2.3 APPLICATION DAIGRAM

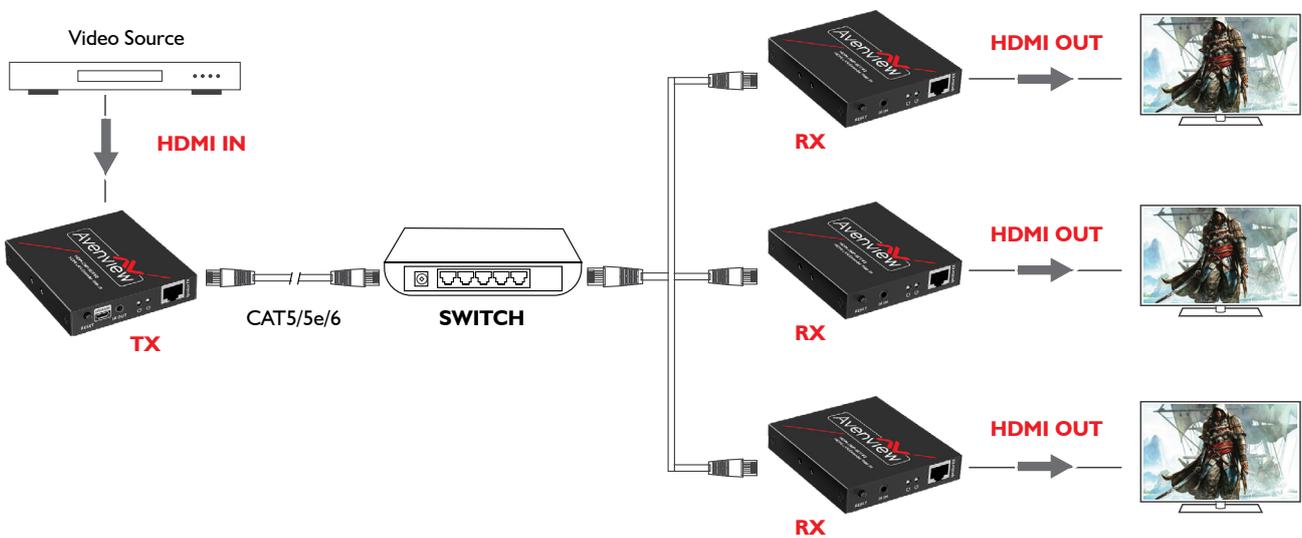
Application Diagram 1  
POINT TO POINT CONNECTION



Application Diagram 2  
LAN/SWITCH CASCADE CONNECTION



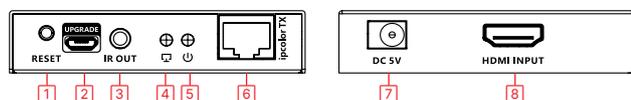
Application Diagram 3  
ONE-TO-MANY CONNECTION



## 2.4 DEVICE DESCRIPTION & LAYOUT

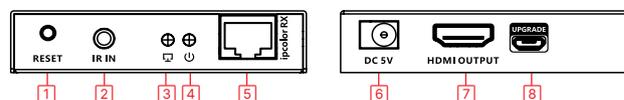
This product is composed of a Transmitter and a Receiver.

### 2.4.1 Front Panel & Rear Panel (Transmitter, HDM-C6IP-S-V2)



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li><b>1 Reset</b></li> <li><b>2 Micro USB port</b></li> <li><b>3 IR output</b></li> <li><b>4 Network link light</b></li> <li><b>5 Power light</b></li> <li><b>6 RJ45 signal output</b></li> <li><b>7 Power input</b></li> <li><b>8 HDMI input</b></li> </ul> | <ul style="list-style-type: none"> <li>Restart the device</li> <li>Used for firmware upgrading</li> <li>Connect with IR blaster extension cable</li> <li>1) Light off: No Network connection<br/>2) Steady on: Network connection is normal</li> <li>1) Steady on: When the product is powered on, there is no HDMI data transmission<br/>2) Flash: The HDMI data is transmitting</li> <li>Connect with the network cable</li> <li>Connect with DC5V/0.5A power adapter</li> <li>Connect with the source device</li> </ul> |
|--|--|

### 2.4.2 Front Panel & Rear Panel (Receiver, HDM-C6IP-R-V2)



- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><b>1 Reset</b></li> <li><b>2 IR input</b></li> <li><b>3 Network link light</b></li> <li><b>4 Power light</b></li> <li><b>5 RJ45 signal input</b></li> <li><b>6 Power input</b></li> <li><b>7 HDMI output</b></li> <li><b>8 Micro USB port</b></li> </ul> | <ul style="list-style-type: none"> <li>Restart the device</li> <li>Connect with IR receiver extension cable</li> <li>1) Light off: No Network connection<br/>2) Steady on: Network connection is normal</li> <li>1) Steady on: When the product is powered on, there is no HDMI data transmission<br/>2) Flash: The HDMI data is transmitting</li> <li>Connect with the network cable</li> <li>Connect with DC5V/0.5A power adapter</li> <li>Connect with HDMI display device</li> <li>Used for firmware upgrading</li> </ul> |
|---|---|

Each Transmitter and Receiver after pairing support only point to point operation. It cannot support signals broadcasting by HDMI.

**IMPORTANT** Before starting the insulation please ensure that all devices are powered OFF

## SECTION 3: INSTALLATION

Please ensure all the package contents are all received.

To setup Avenview HDM-C6IP-SET-V2 follow these steps for connecting to a device:

1. Connect your HDMI source (such as a Blu-ray Disc player) to Transmitter (HDM-C6IP-S-V2).
2. Connect your HDMI display (such as a LCD TV) to the receiving unit HDM-C6IP-R-V2.
3. Connect your CAT-5E/6 follow the standards of TIA-568BLAN cable between the transmitting and receiving units.
4. Make sure CAT-5E/6 LAN cable is tightly connected and not loose.
5. Plug in 5V DC power cord to the power jack of the transmitting unit HDM-C6IP-S-V2
6. Plug in 5V DC power cord to the power jack of the receiving unit HDM-C6IP-R-V2.

## SECTION 4: GENERAL TROUBLESHOOTING

PROBLEM	POSSIBLE SOLUTION
<b>NO IMAGE</b>	<ul style="list-style-type: none"> <li>• Check if connection to the source and the display are correct.</li> <li>• Ensure that display device supports 480p, 720p and 1080p resolution</li> </ul>
<b>SCREEN DEFECTS APPEAR</b>	<ul style="list-style-type: none"> <li>• Check the DVI and HDMI connection</li> </ul>
<b>YELLOW LIGHT ON LAN PORT FLASHING SLOW</b>	<ul style="list-style-type: none"> <li>• Check both units and make sure the TX and RX are not Reversed</li> <li>• Check the source device is powered ON</li> </ul>
<b>YELLOW LIGHT ON LAN PORT FLASHING FAST/NO IMAGE</b>	<ul style="list-style-type: none"> <li>• Check Graphics card on PC. This product supports up to 1080p (1920x1080) resolution.</li> </ul>
<b>NO YELLOW LIGHT ON LAN PORT</b>	<ul style="list-style-type: none"> <li>• Check Network cable only use TIA-568B Standard</li> <li>• Network cable run is out of range</li> </ul>

## SECTION 5: SPECIFICATIONS



Item	Sender	Receiver
<b>Video</b>		
Input interface	1x HDMI	1x RJ45
Output interface	1x RJ45	1x HDMI
HDMI length	≤ 5m	≤ 5m
Maximum transfer rate	4.96Gbps	
Compatibility	HDMI 1.3 HDCP 1.4	
Resolutions	1080P@24/25/30/50/60Hz, 720P@50/60Hz, 576P@60Hz, 480P@60Hz, 1920x1200, 1680x1050, 1600x900, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600	
Connection types	One-to-one connection One-to-many connection Switch cascading	
Transmission distance	CAT5 80m / CAT5E 100m / CAT6 120m	
Transmission latency	80~130ms	
<b>Audio signal</b>		
Input interface	1xHDMI	1xRJ45
Output interface	1xRJ45	1xHDMI
HDMI output	LPCM 2.0	
<b>Command Signal</b>		
IR interface	1x 3.5mm IR OUT	1x 3.5mm IR IN
IR receiving range	≤ 5m	
IR frequency	20kHz~60kHz	
<b>Power</b>		
Power Supply	DC 5V/0.5A	DC 5V/0.5A
Power Consumption	TX ≤ 2W	RX ≤ 1.5W
<b>Operating Environment</b>		
Working temperature	- 20°C~60°C	
Storage temperature	- 30°C~70°C	
Humidity	0~90%RH (no condensation)	
<b>Physical Properties</b>		
Housing	Iron	
Weight	150g	145g
Color	Black	
Dimensions	85(L)*76(W)*16.5(H)mm	

### PERFORMANCE GUIDE FOR HDMI OVER CATEGORY CABLE TRANSMISSION

PERFORMANCE RATING		TYPE OF CATEGORY CABLE		
WIRING	SHIELDING	CAT5	CAT5E	CAT6
SOLID	UNSHIELDED (UTP)	★ ★ ★	★ ★ ★ ★	★ ★ ★ ★ ★
	SHIELDED (STP)	★ ★ ★	★ ★ ★	★ ★ ★ ★
STRANDED	UNSHIELDED (UTP)	★	★ ★	★ ★
	SHIELDED (STP)	★	★	★ ★
TERMINATION		PLEASE USE EIA/TIA-568-B TERMINATION (T568B) AT ANY TIME		



## 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. Both Avenview and purchaser are responsible for freight charges and brokerages 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 has been removed or defaced from the Avenview product(s).

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Some states do not allow the inclusion or limitation of incidental or consequential damages, or allow limitations on duration implements of the Warranty Period; therefore the above limitations or exclusions may not be applicable to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.



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