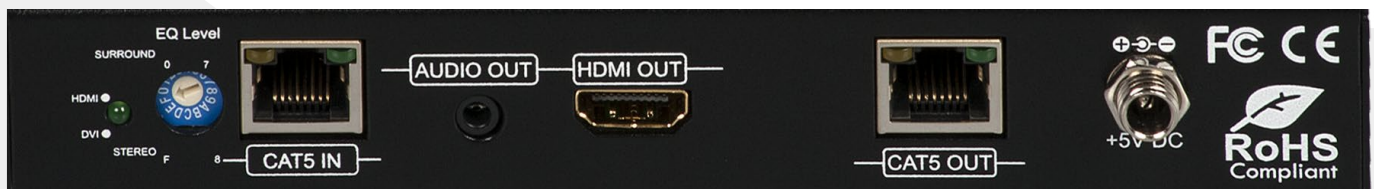




AV Connectivity, Distribution And Beyond...

**VIDEO WALLS VIDEO PROCESSORS**  
**VIDEO MATRIX SWITCHES**  
**EXTENDERS SPLITTERS WIRELESS**  
**CABLES & ACCESSORIES**

## HDMI Transmitter & Repeater Single CAT5/6 Cascadable with Local Output



**Model #: HDM-C5XD-SR**

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## Product Application & Market Sectors



Corporate



House Of Worship



Military



Residential



Education



Industrial



Medical



Aviation



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## SECTION I: GETTING STARTED

### I.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.

### I.2 SAFETY INSTRUCTIONS

The HDM-C5XD-SR, HDMI Transmitter over Single CAT5 (Cascadable) with Local Output have been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the HDI-C5XD-SR 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
	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.
	<b>⚠ WARNING</b> Read & understand user guide before using this device.  Failure to follow the proper installation instructions could result in damage to the product and preventing expected results.




## 2. INTRODUCTION

The Avenview HDM-C5XD-SR, HDMI Transmitter over Single CAT5 (Cascadable) with Local Output provide extension of high definition video and high quality audio can be transmitted to different locations as a loop or cascade function. The devices are Cascadable, allowing you to extend HDMI or DVI compliant displays almost anywhere.

- Silicon Image chipset embedded for best quality, compatibility and reliability
- HDMI compliant
- HDCP compliant
- Supports Audio Output 3.5mm jack
- Supports default HDMI EDID and has the ability to learn the EDID of the displays
- Regenerates the HDMI signal
- Extends up to 11m (35ft) of input HDMI cable
- Extends up to 11m (35ft) of output HDMI cable
- Extends up to 50m (200ft) (720p) of output CAT5/6 cable
- Extends up to 40m (130ft) (1080p) of output CAT5/6 cable
- Pure unaltered uncompressed 7.1ch digital HDMI over Single CAT5 transmission
- Wall mountable interlocking power adapter with screw terminal
- Perfectly integrated with other HDM-C5-3 Series products

### 2.1 PACKAGE CONTENTS

Before you start the installation of the converter, please check the package contents.

1	HDM-C5XD-SR	X 1	
2	POWER ADAPTER (+5V 4A DC)	X 1	
3	USER'S MANUAL	X 1	

- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.





## 2.3 BEFORE INSTALLATION

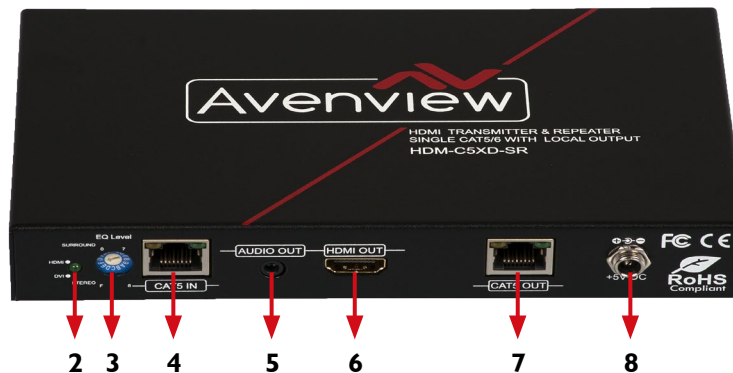
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force ends of the UTP cable. It can cause malfunction.

## 2.4 PANEL DESCRIPTION

### 2.4.1 HDM-C5XD-SR Front Panel



I Power LED



### 2.4.2 HDM-C5XD-SR Rear Panel

2 Input Signal format indicator ( <b>Bright</b> : HDMI Single, <b>Dim</b> : DVI Signal)	3 Rotary Switch (details below)
4 <b>RJ45 IN</b> : Connect RJ45 Source from HDM-C5XD-S or HDM-C5-3-S	5 <b>Audio Out</b> : Plug in Local Speaker
6 <b>HDMI OUT</b> : HDMI Local Output	7 <b>HDMI Signal Out</b> : RJ45 connection to connect to HDM-C5XD-SR, HDM-C5-3-R or HDM-C5-3-M
8 <b>Power Connector</b> : 5V 4A DC	





### 2.4.3 HDM-C5XD-SR Rotary Switch

*Adjust the 16-level equalization control corresponding to the transmission distance of receiving HDMI signals. For surround sound audio output, please adjust from 0-to-7 (longest-to-shortest transmission length). For stereo audio output, please adjust from 8-to-F (longest-to-shortest transmission length). It is recommended to adjust from 7-to-0 or from F-to-8 to find the optimal visual experience.*

## 3. INSTALLATION (HDM-C5XD-SR)

To setup Avenview HDM-C5XD-SR please follow these steps for connecting to a device:

1. Turn off all devices including monitors / TV
2. Connect a Local HDMI display to the HDMI out of the HDM-C5XD-SR and then connect a speaker to the 3.5mm audio socket.
3. Connect to RJ45 cable to CAT5 IN which is connected to CAT5 OUT on HDM-C5XD-S
4. Connect HDM-C5XD-SR to another HDM-C5XD-SR for cascading or HDM-C5-3-R from CAT5 Out with CAT5 / CAT6 cable
5. Plug in 5V 4A DC Power (supplied).
6. Power on the HDMI display
7. Power on HDMI Sources.



## 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>• This product supports up to 1080p resolution.</li> <li>• Check the HDMI connection</li> <li>• If outputting from a PC. Check the maximum resolution range of the graphics card.</li> </ul>
<b>LEARN EDID</b>	<ul style="list-style-type: none"> <li>• To learn the EDID of HDMI display for respective resolutions signals.</li> <li>• Connect the HDTV to the HDMI local output via HDMI cable</li> <li>• Set pin#1 at on [↓] first then connect the HDMI input to HDTV through a hdmi cable. Wait for 20 seconds. The edid learning procedure will be finished. If you want to learn the edid from another hdtv, you must set pin#1 at off [↑] first and repeat this procedure.</li> </ul>
<b>EQUALIZER SETTINGS</b>	Please check the RX (Receiver) Dial Mode to ensure it is on 7 or gradually increase it to 6,5,4,3,2,1,0 until the video appears.



### WARNING

Do Not Over Power The Eq Signal Strength

When Adjusting The Eq Please Ensure A Slow Clockwise  
Turn From Min-Max

Stop Once The Picture/Audio Is Working Properly

Do Not Continue To Turn Dial.

Persistence Will Cause An Over Power Condition Of The Signal  
And May Affect Long Term Reliability.

Thank You.











## 5. SPECIFICATIONS

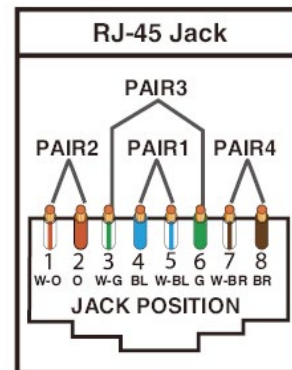
ITEM	DESCRIPTION
UNITS	HDM-C5XD-SR
UNIT DESCRIPTION	HDMI Repeater with Local Output
HDMI COMPLIANCE	Yes
HDCP COMPLIANCE	Yes
VIDEO BANDWIDTH	Single Link 225 MHz (6.75Gbps)
SUPPORTED RESOLUTIONS	480i / 480p / 720p / 1080i / 1080p60
RESOLUTION AND DISTANCE	<b>Full HD:</b> (1080p) ~ 40meter (130feet) (CAT5e) / 50meter (165feet) (CAT6) <b>HD:</b> (720p/1080i) ~ 50meter (165feet) (CAT5e) / 60meter (200feet) (CAT6)
AUDIO SUPPORT	Surround Sound (up to 7.1 Ch) or Stereo Digital Audio
EQUALIZATION	8-Level Digital Control
INPUT TMDS SIGNAL	1.2 Volts (peak-to-peak)
INPUT DDC SIGNAL	5 Volts (peak-to-peak, TTL)
ESD PROTECTION	- Human body model — $\pm 19\text{kV}$ (air-gap discharge) & $\pm 12\text{kV}$ (contact discharge) - Core chipset — $\pm 8\text{kV}$
INPUT	1 $\times$ RJ45
OUTPUT	1 $\times$ HDMI 1 $\times$ RJ45 1 $\times$ 3.5mm Audio
HDMI CONNECTOR	Type A (19 pin female)
RJ45 CONNECTOR	WE/SS 8P8C with 2 LED indicators
AUDIO CONNECTOR	3.5mm
DIP SWITCH	Yes
DIMENSIONS (L $\times$ W $\times$ H)	7.1" $\times$ 4.2" $\times$ 1.1"
POWER SUPPLY	5V 4A DC
POWER CONSUMPTION	3 Watt (max)
<i>Environmental</i>	
OPERATING TEMPERATURE	32° ~ 104°F (0° to 40°C)
STORAGE TEMPERATURE	-4° ~ 140°F (-20° ~ 60°C)
RELATIVE HUMIDITY	20~90% RH (no condensation)



## Notice

1. If the DVI or HDMI device requires the EDID information, please use C-EDID-RW EDID Reader/Writer to retrieve and provide DVI/HDMI EDID information.
2. All HDMI over CAT5 transmission distances are measured using Belden 1583A CAT5e 125MHz UTP cable and ASTRODESIGN Video Signal Generator VG-859C.
3. The transmission length is largely affected by the type of category cables, the type of HDMI sources, and the type of HDMI display. The testing result shows solid UTP cables (usually in the form of 300m or 1000ft bulk cable) can transmit a lot longer signals than stranded UTP cables (usually in the form of patch cords). Shielded STP cables are better suit than unshielded UTP cables. A solid UTP CAT5e cable shows longer transmission length than stranded STP CAT6 cable. For long extension users, solid cables are your only choice.
4. EIA/TIA-568-B termination (T568B) for category cables is recommended for better performance.
5. To reduce the interference among the unshielded twisted pairs of wires in category cable, you can use double shielded STP cables to improve EMI problems, which is worse in long transmission.
6. Because the quality of the category cables has the major effects in how long transmission distance will be made and how good is the received display, the actual transmission length is subject to your category cables. For resolution greater than 1080i or 1280x1024, a solid CAT6 cable is the only viable choice.
7. If your HDMI display has multiple HDMI inputs, it is found that the first HDMI input [HDMI input #1] generally can produce better transmission performance among all HDMI inputs.

Data Link TIA/EIA-568-B			
PIN	Color		Function
1	 W-O		TX0-
2	 O		TX0+
3	 W-G		TX1-
4	 BL		TX2-
5	 W-BL		TX2+
6	 G		TX1+
7	 W-BR		TXC-
8	 BR		TXC+



## 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		



Notes



Notes





## 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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