



AV Connectivity, Distribution And Beyond...

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

HDMI Transmitter Single CAT5/6 with Local Output



Model #: HDM-C5XD-S

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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-S, 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 HDM-C5XD-S 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
	<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>DO NOT TAMPER WITH THE UNIT. DOING SO WILL VOID THE WARRANTY AND CONTINUED USE OF THE PRODUCT.</p>
	<p>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.</p>
	<p>⚠ WARNING</p> <p>Read & understand user guide before using this device.</p> <p>Failure to follow the proper installation instructions could result in damage to the product and preventing expected results.</p>



2. INTRODUCTION

The Avenview HDM-C5XD-S, 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
- Regenerates the HDMI signal
- Supports Audio Output
- Supports default HDMI EDID and has the ability to learn the EDID of the displays
- Regenerates the HDMI signal
- Supports default HDMI EDID and has the ability to learn the EDID of displays
- Extends up to 15m (50ft) of input HDMI cable
- Extends up to 15m (50ft) 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
- Allows cascading
- Wall mountable with interlocking power adapter for fixedness
- Perfectly integrated with other HDM-C5-3 Series products

2.1 PACKAGE CONTENTS

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

1	HDM-C5XD-S	X 1	
2	POWER ADAPTER (+5VDC, 4A)	X 1	
3	USER GUIDE	X 1	

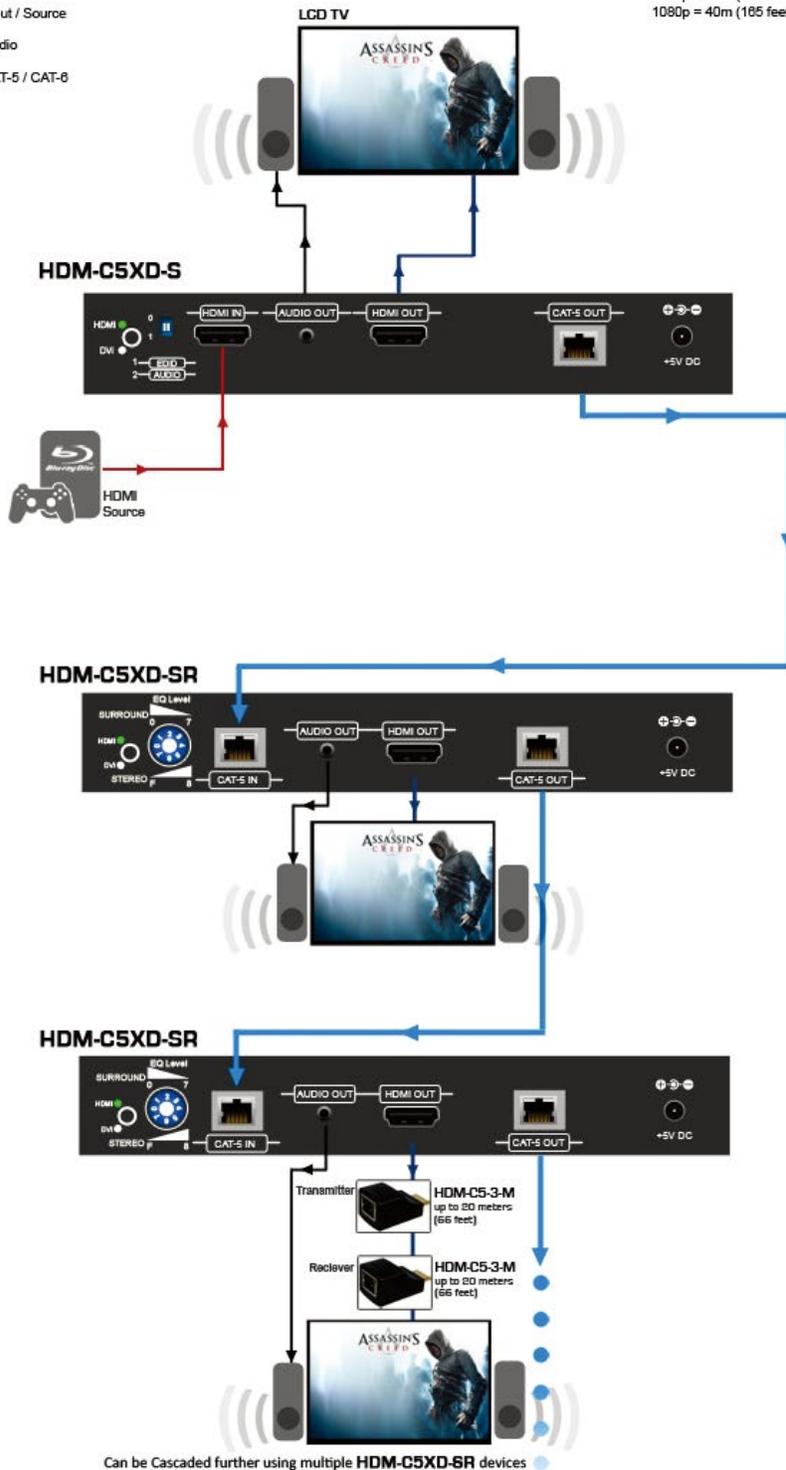


HDM-C5XD-S & HDM-C5XD-SR

CABLE INDEX

- Output
- Input / Source
- Audio
- CAT-5 / CAT-6

720p/1080i = 50m (165 feet) CAT5
 720p/1080i = 55m (200 feet) CAT6
 1080p = 30m (130 feet) CAT5
 1080p = 40m (165 feet) CAT6



2.3 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.
- Do not twist or pull by force ends of the UTP cable. It can cause malfunction.

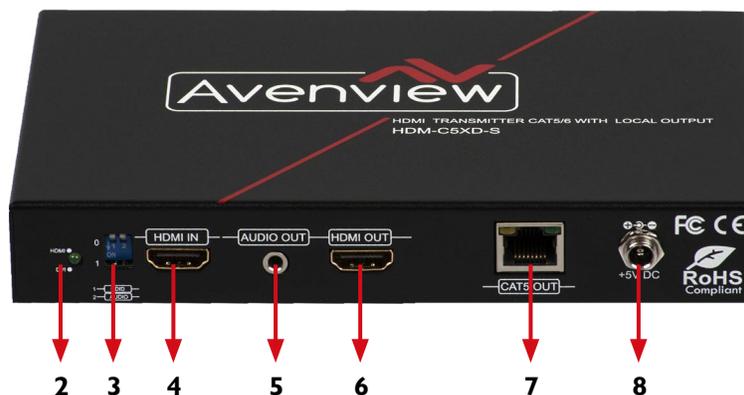
2.4 PANEL DESCRIPTION

2.4.1 HDM-C5XD-S Front Panel



1 Power LED

2.4.2 HDM-C5XD-S Rear Panel



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



2.4.3 DIP Switch for EDID & Audio/Video Setting

DIP Switch Position		Video	Audio	Description
PIN # 1	PIN # 2			
OFF ↑	OFF ↑	1080p	Stereo ¹	Default Mode²: Up to 1080p & Stereo output.
OFF ↑	ON ↓	720p/1080i	Stereo	Safe Mode³: Forces system to output at 720p/1080i with Stereo Audio.
ON ↓	OFF ↑	Bypass ⁴	Bypass	EDID Learning Mode⁵: for learning EDID from the display while playing any received HDMI Audio format.
ON ↓	ON ↓	Bypass	Stereo	EDID Learning & Stereo Mode: For learning EDID from the display while enforcing stereo output.

1. If the HDTV shows video but without audio, please try to set audio mode to stereo
2. Factory default: Pin#1-OFF [↑], Pin#2- OFF [↑] for 1080p with stereo.
3. If you encounter any unsolved audio/video output problem during system installation, please turn to Safe Mode (Pin#1-OFF [↑] & Pin#2-ON [↓]) to enforce the most compatible 720p stereo output for system check.
4. Bypass means the matrix will maintain playing the original format of HDMI signals in video and perhaps audio. By setting at this mode, the users may encounter compatibility issue among different kinds of HDMI sources and displays. If you cannot get the audio and/or video output normally at the system installation, please change the DIP switch setting to default mode or even safe mode to verify the functionality of the device.
5. 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.

3. INSTALLATION (HDM-C5XD-S)

To setup Avenview HDM-C5XD-S 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-S and then connect a speaker to the 3.5mm audio socket.
3. Connect to a HDMI source (such as a Blu-Ray Disc player)
4. Connect HDM-C5XD-S to HDM-C5XD-SR 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
NO IMAGE	<ul style="list-style-type: none"> • Check if connection to the source and the display are correct. • Ensure that display device supports 480p, 720p and 1080p resolution
SCREEN DEFECTS APPEAR	<ul style="list-style-type: none"> • This product supports up to 1080p resolution. • Check the HDMI connection • If outputting from a PC. Check the maximum resolution range of the graphics card.

5. SPECIFICATIONS

ITEM	DESCRIPTION
UNITS	HDM-C5XD-S
UNIT DESCRIPTION	HDMI Transmitter 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	Full HD: (1080p) ~ 40meter (130feet) (CAT5e) / 50meter (165feet) (CAT6) HD: (720p/1080i) ~ 50meter (165feet) (CAT5e) / 60meter (200feet) (CAT6)
AUDIO SUPPORT	Surround Sound (up to 7.1 Ch) or Stereo Digital Audio
EQUALIZATION	-
INPUT TMDS SIGNAL	1.2 Volts (peak-to-peak)
INPUT DDC SIGNAL	5 Volts (peak-to-peak, TTL)
ESD PROTECTION	- Human body model — ±19kV (air-gap discharge) & ±12kV (contact discharge) - Core chipset — ±8kV
INPUT	1 × HDMI
OUTPUT	1 × HDMI 1 × RJ45 1 × 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 X W X H)	4.3" × 8.3" × 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.*





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