



Control Your Video

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

PRODUCT MANUAL

Model: SW-HDM-4XI



**4X1 HDMI switcher with
IR & RS232 Control**

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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. Avenview warranty certificate please refer to page #11

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.

I.2 SAFETY GUIDELINES

The SW-HDM-4X1, 4X1 HDMI Switcher has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the SW-HDM-4X1 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 COMMUNICATION 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 ENVIROMENT 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 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>



WARNING

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 **SW-HDM-4XI** HDMI Switcher with IR and RS232 Control provides THREE simple and effective ways of switching among 4 HDMI sources to your HDMI/DVI enabled HD display.

This device has Auto-scan and Auto-detection function which provides quick switching on the connected sources sequentially and automatically switches to the first working source among 4 channels at power on. With IR remote control, front panel button and RS232; this allows users to display any of the 4 sources they choose.

Connecting PS3, DVD players, camcorders, or set-top boxes can be easily and simultaneously done with built-in HDCP support; allowing any device to be connected to the **SW-HDM-4XI**.

Features

- Support HDMI Deep Color
- Fully HDCP compliant
- Front panel buttons to switch any Four (4) HDMI/DVI sources
- Supports 480p, 720p, 1080i, 1080p, and VESA resolutions
- Front panel LED indicators
- Equalization on input ports and pre-emphasis on output port
- Easy installation



The outputs and inputs on the SW-HDM-4XI support both HDMI and DVI. See above for an example of an HDMI to DVI cable.

Note: HDMI TO DVI CABLE NOT INCLUDED



2.1 PACKAGE CONTENTS

Before you start the installation of the SW-HDM-4X1, please ensure that the packaging has the listed items below.

1	SW-HDM-4X1	QTY x 1	
2	Power Adapter (5VDC 1A)	QTY x 1	
3	IR Receiver	QTY x 1	
4	IR Remote	QTY x 1	
5	PRODUCT USER MANUAL	QTY x 1	

2.2 BEFORE INSTALLATION

ATTENTION

- 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.
- Take care when connecting units to the electrical power circuit, incase the maximum rated circuit is not overloaded
- Installation of the equipment must comply with local and national electrical codes.
- 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.
- 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.

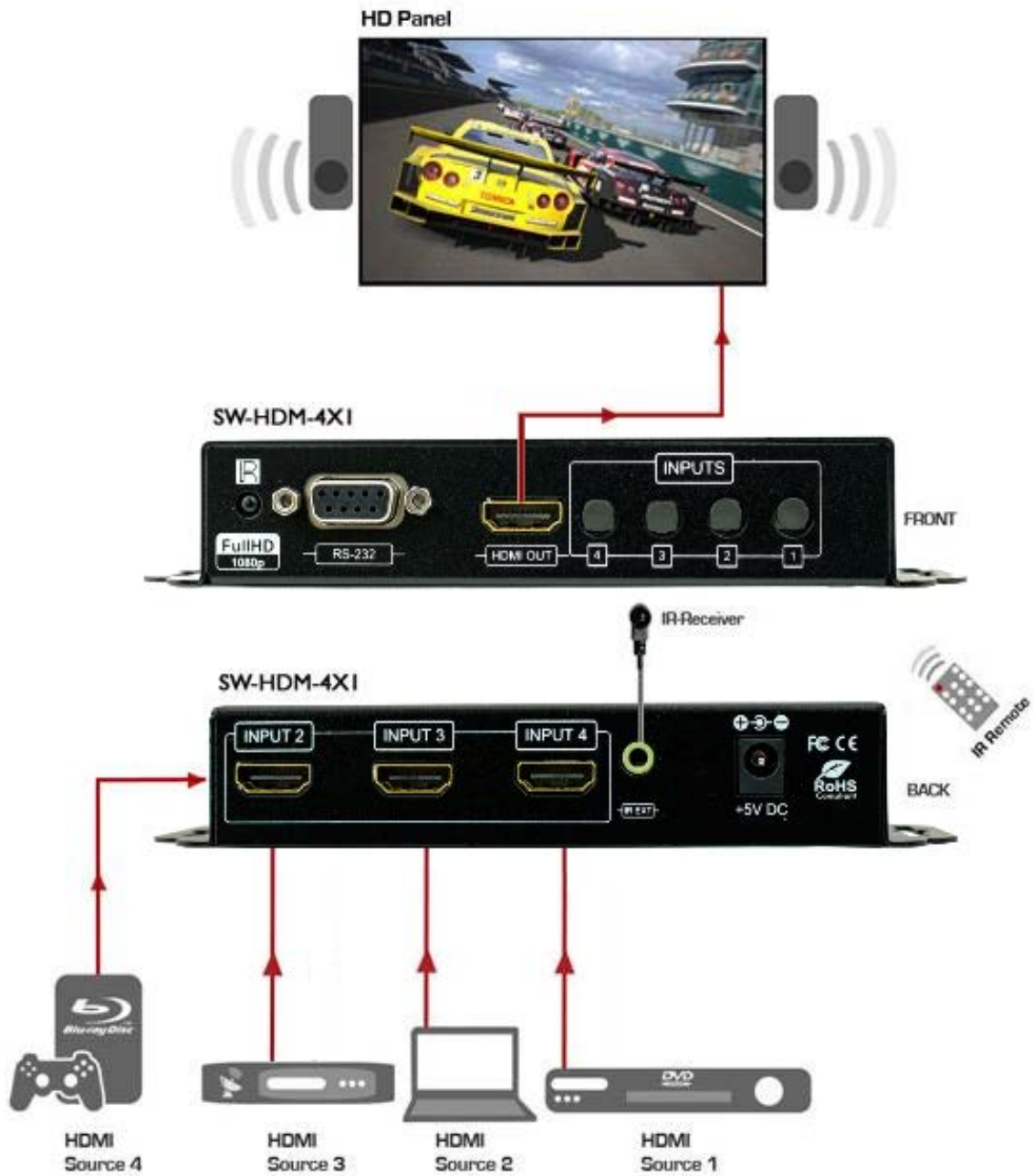


SW-HDM-4X1

1080p = 30m (130 feet) HDMI

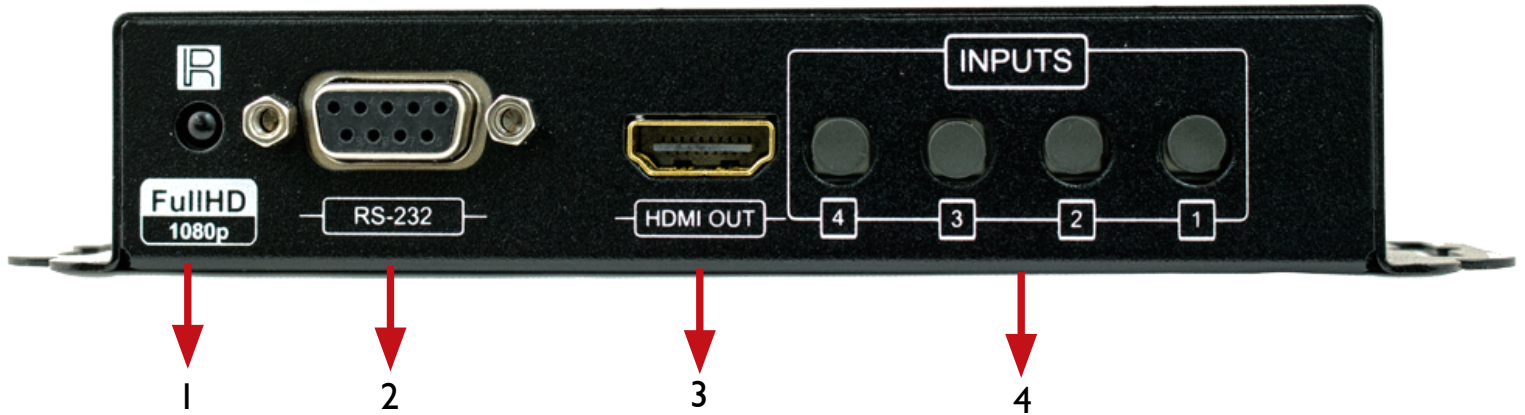
CABLE INDEX

- Input /Output
- IR Extender



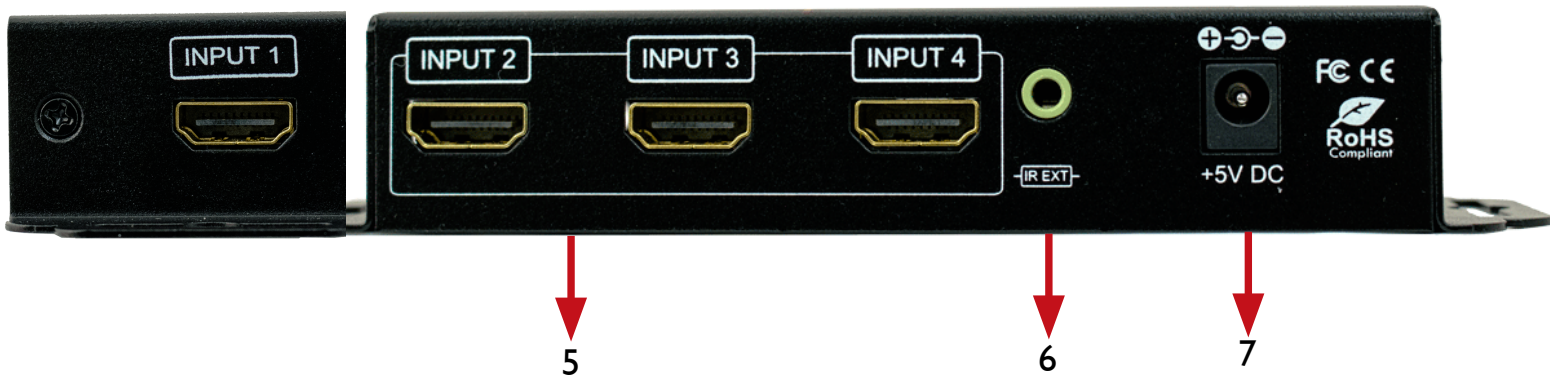
2.4 PANEL DESCRIPTION

2.4.1 I/O PANEL (SWITCHER, SW-HDM-4XI) Front



<p>1. IR SENSOR: 3.5mm IR Receiver cable for IR signal. Place IR Remote within direct line of site with the IR Receiver.</p>	<p>2. RS-232: Connect to a device that has the ability to send/receive serial commands.</p>
<p>3. HDMI OUT: Connect HDMI display via Male to Male HDMI Cable with HDCP compatible display/monitor.</p>	<p>4. INPUT SELECTOR: Manually select HDMI input</p>



2.4.2 I/O PANEL (SWITCHER, SW-HDM-4XI) Rear

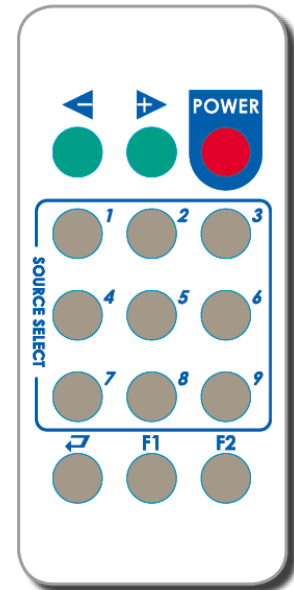


<p>5. HDMI IN: Connect HDMI sources 1-4</p>	<p>6. IR IN: IR input for remote control</p>
<p>7. POWER IN: 5V 0.85A DC</p>	



2.5 IR REMOTE FUNCTIONS

FUNCTION KEY	FUNCTION DESCRIPTION
POWER	N/A RESERVED
	N/A RESERVED
	N/A RESERVED
SOURCE SELECT 1	SELECT HDMI INPUT 1 TO BE THE INPUT SOURCE
SOURCE SELECT 2	SELECT HDMI INPUT 2 TO BE THE INPUT SOURCE
SOURCE SELECT 3	SELECT HDMI INPUT 3 TO BE THE INPUT SOURCE
SOURCE SELECT 4	SELECT HDMI INPUT 4 TO BE THE INPUT SOURCE



2.6 RS 232 COMMANDS (SW-HDM-4x1)

The following RS 232 Commands can be used to control the SW-HDM-4X1

0x99 0x01 =>choose input 1
 0x99 0x02 =>choose input 2
 0x99 0x03 =>choose input 3
 0x99 0x04 =>choose input 4
 0x99 0x05 =>auto-detection on
 0x99 0x06 =>auto-detection off

COM PORT

SETTINGS Bits Per
 Second: 9600 Data Bits: 8
 Bits
 Parity: None
 Stop Bits: None
 Flow Control: None
 *No need for carriage return

3. INSTALLATION (SW-HDM-4x1)

To setup Avenview SW-HDM-4X1 please follow these steps for connecting to a HDTV/MONITOR

1. Turn off all devices including HDTV/MONITOR
2. Connect 1-4 sources to the INPUTS ports of the SW-HDM-4x1 via HDMI cable.
3. Connect to a HDTV/Monitor via HDMI cable
4. Plug in 5V 1A DC Power (supplied) to the SW-HDM-4x1. (There is no power switch. Power is supplied when the power adapter is plugged into wall outlet.
5. Power on the HDMI display.
6. If you need to extend the HDMI signal further than 30ft, you may need to use an HDMI Extender (HDM3D-C51R-SET,HDM3D-C53X-SET)



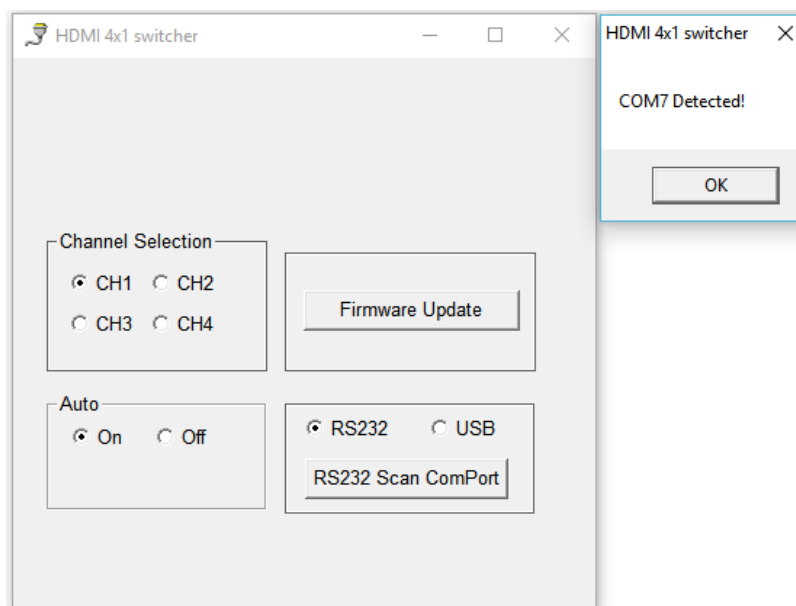
3.1 PC SOFTWARE TOOL

In addition to the front panel buttons, the SW-HDM-4X1 can also be controlled through its Windows PC application over the RS-232 port. The software allows for selecting the output channel and enabling or disabling the auto-detection functionality.

3.1.1 Using the Software

Start by downloading and extracting the software from the Avenview website. Connect the controlling PC to the serial port on the SW-HDM-4X1 with a USB to serial adapter cable then, plug in the DC power connector. Start the software by double-clicking on "HDMI 4x1 switcher.exe". Making sure "RS232" is selected, click on "Scan ComPort". You will be presented with the screen below, click "ok".

You can now select the output channel or enable/disable Auto-Detection. (Firmware updates are done with a different application)



3.1.2 Auto-Detection Functionality*

The Auto-Detection function of the SW-HDM-4X1 will automatically switch the output of the unit when an HDMI source is connected, following the hierarchy of 1 > 2 > 3 > 4. That is, when a source is connected to input 4, the unit will automatically switch to that input.

When a source is connected to input 3, the unit will switch to that input, even if it was already set to input 4. Input 2 will override 3 and input 1 will override 2. If the source is disconnected from input 1, the unit will automatically switch to input 2 if there is a connected source and so on.

***Auto-Detection requires the latest firmware, SW-04R5-7BAX-042-PL.bin, to be installed. Firmware files and programming software can be downloaded from the Avenview website.**



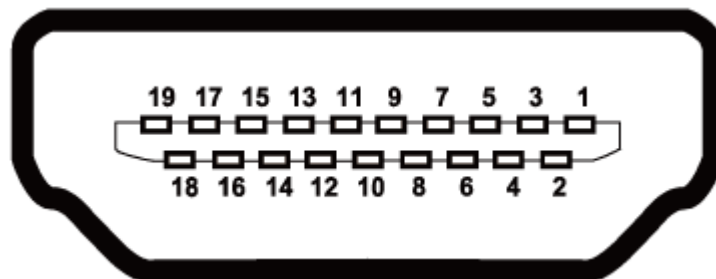
4. SPECIFICATIONS

MODEL NUMBER		SW-HDM-4XI
HDMI COMPLIANCE		HDMI 1.4
HDCP COMPLIANCE		HDCP 1.1
VIDEO BANDWIDTH		6.75 GBPS
VIDEO SUPPORT		480P, 720P, 1080I, 1080P, AND VESA RESOLUTIONS
TRANSMISSION		UP TO 15M/50FT AT 1080P
AUDIO SUPPORT		SURROUND SOUND (UPTO 7.1 CH) OR STEREO 2CH
INPUT TMDS SIGNAL		1.2 VOLTS (PEAK-TO-PEAK)
INPUT DDC SIGNAL		5 VOLTS (PEAK-TO-PEAK)
INPUT		4X HDMI / 1X RS-232 / 1X IR RECEIVER
OUTPUT		1X HDMI
IR REMOTE CONTROL		ELECTRO-OPTICAL CHARACTERISTICS: $\pi = 25^\circ$ / CARRIER FREQUENCY: 38KHZ
HDMI CONNECTOR		TYPE A [19-PIN FEMALE]
RS-232 CONNECTOR		DE-9 [9-PIN D-SUB FEMALE]
MECHANICAL		
DIMENSIONS [L X W X H]	MODEL	4.2" X 2.1" X 1"
	PACKAGE	6.9" X 10.4" X 3.1"
WEIGHT	MODEL	7.1OZ
	PACKAGE	1.14 LBS
MOUNTING OPTIONS		WALL-MOUNTING CASE
POWER SUPPLY		5V 0.85A DC
POWER CONSUMPTION		5 WATTS [MAX]
OPERATION TEMPERATURE		0~40°C [32~104°F]
STORAGE TEMPERATURE		-20~60°C [-4~140°F]
RELATIVE HUMIDITY		20~90% RH [NO CONDENSATION]



5. 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.
NOT SHOWING CORRECT SOURCE	<ul style="list-style-type: none"> • Ensure you select the proper input ON THE UNIT • Ensure all HDMI Cables are seated properly in the INPUTS/OUTPUT



Type A (Receptacle) HDMI

PIN 1	TMDS DATA2+	PIN 11	TMDS CLOCK SHIELD
PIN 2	TMDS DATA2 SHIELD	PIN 12	TMDS CLOCK-
PIN 3	TMDS DATA2-	PIN 13	NC
PIN 4	TMDS DATA1+	PIN 14	RESERVED (N.C. ON DEVICE)
PIN 5	TMDS DATA1 SHIELD	PIN 15	SCL
PIN 6	TMDS DATA1-	PIN 16	SDA
PIN 7	TMDS DATA0+	PIN 17	DDC/CEC GROUND
PIN 8	TMDS DATA0 SHIELD	PIN 18	+5V POWER
PIN 9	TMDS DATA0-	PIN 19	HOT PLUG DETECT



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.

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.

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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