

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

# **4K Modular Video Wall Processor**





Model #: HDM-AVXWALL

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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.I 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.
- u se 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 Avenview HDM-AVXWALL Modular Video Wall processor 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-AVXWALL 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.
- A 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.
- A 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.



## **I.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.
$\bigcirc$	DO NOT TAMPER WITH THE UNIT. DOING SO WILL VOID THE WARRANTY AND CONTINUED USE Of THE PRODUCT.
BEWARE this unit contains static sensitive devices	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>AWARNING</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 AVXWALL is a modular chassis based 4K video wall Processor with first in its class FPGA and industry recognized video processors built into the design.

#### The AVXWALL is compatible with standard definition (SD), Full HD (1080p), WQXGA (2160x1600) and 4K.

**AVXWALL** accepts 4K signal formats with modular input and output board design with video connectors such as Dual Link DVI, DisplayPort and HDM which offers impeccable quality across multiple screens. The video wall processor also can mix and match our line of I/O cards which can be installed into the appointed space. I/O cards are available in CVBS,YPbPr, VGA, DVI, HDMI, SDI, DisplayPort, HDBASET and optical fiber. These I/O cards offer extremely high video bandwidth , which ensures real-time signal processing, with no delay or frame loss.

No in-depth training is required to use our new Control Software. Creative and useful features for any client solution include drag n drop, image placement, zoom, and user preset buttons to recall favorites. Bonus feature; our software can also preview the input source directly within the Control Software which is connected through TCP/IP. Enjoy using your touch devices with our optional MRCS controller board to manage multiple video walls and layouts with fully customizable interface. It also supports a 2x2, 3x3, and 4x4 - upto max 72 outputs on a

The user can also create quad view grid format on a single display , PIP, Overlay across many displays with a click of the mouse with user defined presets up to 128.

Having **FPGA** as its core design, this technology enables this unit to manage multiple Video Walls with one single processor. The user has the ability to control each video-wall separately within the control software. The output resolution can also be managed within each individual screen/monitor and also for different Video Walls.

### **FEATURES:**

- Modular input and output chasis design 720x480 to 4096x2160;
- Supports CVBS, YPbPr, VGA, DVI, HDMI, SDI, DisplayPort, UTP and optical fiber;
- Seamless Switching, No black fields or frame loss,
- Full screen modes PIP, PAP, Zoom, image crop and adjustable size & position through software;
- Functions perfectly as a multiviewer, video screen splitter, video converter and matrix switcher;
- Grid formating up to 4 Images per screen;

- Minimum single screen to 64 screens horizontally /32 screens vertically 600x800, 768x1024, 768x1024, 720x1280, 800x1280, 1024x1280, 768x1366, 768x1360, 1050x1400, 900x1440, 1200x1600, 1050x1680, 1080x1920, 1200x1920;

- IP camera decoding support (64 1080p and 265 D1 images) can be supported on the max chassis size;

- PC capture over the network @20 frames per sec;
- Image parameters and layouts are automatically saved in 128 Preset Mode of the device creating easy buttons;
- Up to 4 separate Background Image storage;
- Management of Multiple Videowalls with same inputs across many designs;
- EDID Management;
- Input Signal preview through Control Software @5 frames per sec;
- Software control through TCP/IP;
- Available in 2/4/8/13/19U chassis sizes.



# 2.1 PACKAGE CONTENT

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

I	HDM-AVXWALL	ХI	a through a
	POWER CORD	ХI	
2	RACK-MOUNTING KIT	ХI	
	INSTALLATION SOFTWARE / CD	ХI	
	USER MANUAL		Contraction of the second



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

## 2.3 PANEL DESCRIPTION

#### 2.3.1 HDM-AVXWALL Front Panel



### 2.3.2 HDM-AVXWALL Rear Panel



<ol> <li>LAN: Connect to active network for LAN serving, Telnet and Web GUI control (using Cat5/6 cables)</li> </ol>	2. <b>VENTILATION FAN:</b> Automatically runs to keep unit cool.
3. <b>RS 232 OUT:</b> Connect to PC or control system with D-Sub 9-pin cable for the transmission of RS-232 commands.	4. <b>RS 232 IN:RS-232:</b> Connect to PC or control system with D-Sub 9-pin cable for the transmission of RS-232 commands.
5. <b>POWER OUTLET:</b> Power cord connection interface	6. <b>POWER SWITCH ON/OFF:</b> Powers the device On and OFF
<ol> <li>INPUT AND OUTPUT CARDS: Supports up to 128 DP (see pages 10-14)</li> </ol>	B Inputs / 72 Outputs HDBaseT, HDMI, DVI, SDI,



## 3. INSTALLATION

To setup Avenview HDM-AVXWALL follow the steps outlined below:

- 1. Premium quality DVI, HDMI, VGA, Composite, S-Video cables and adapters are recommended.
- 2. Make sure HDM-AVXWALL is turned off.
- 3. Connect displays (or projectors, TV or other display devices) to output cards on the HDM-AVXWALL.
- 4. Connect the Source devices (such as, PC, DVD player, or Media player etc.) to HDM-AVXWALL input cards.
- 5. Connect a Windows based laptop or desktop (that will used to configure the HDM-AVXWALL) to HDM-AVXWALL using RS-232 to USB Adapter cord.
- 6. Power ON HDM-AVXWALL.
- 7. Turn ON all devices connected to HDM-AVXWALL and then setup the HDM-AVXWALL from the system through RS-232 to USB Adapter and provided Avenview software.

DO NOT block the back of this device or stack another device on the top or bottom of the HDM-AVXWALL
If the unit is blocked it will block the air flow from the fans on the side of the unit. This could cause system to
over-heat, which may result in system failure.



#### HDM-AVXWALL-XX

CABLE INDEX Output FULL HD1080P (1920X1080) = 10m (33 feet) HDMI WQXGA(2160X1600) = 10m (33 feet) DVI-DL 4K(4096X2160) = 10m (33 feet) DP

VIDEOWALL FUNCTION

4x3Configuration







## 5. SOFTWARE

The Avenview HDM-AVXWALL includes Control Software program that requires Microsoft Windows XP or later.

Connect the provided RS-232 to the HDM-AVXWALL and any USB port on a Windows based computer that will be used to configure the HDM-AVXWALL. When connected Windows will search for the required drivers. If an older version of Windows operating system is used and windows was unable to find drivers; insert the Installation CD (provided) and have Windows search for drivers.

### 5.1 OPERATION AND CONFIGURATION

- I. Power ON the HDM-AVXWALL.
- 2. Power ON all INPUT and OUTPUT connected devices.





### (A) CONNECT:

#### **Establish Connection:**

Launch application by double clicking the software icon on desktop



Login window pops up, Type 'ADMIN' as user name, password blank, then click 'OK'.

~~		~ \	$\otimes$
AVXWA	ILL CTRLPRO SO	FTWARE	
User:	▼ Password	d:	
Choose Chassis — I A 2 3 B 4 • AVXWALL	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 6 17 10 19 20 21 22 23 24 5 26 77 29 • AVXPRO	• AVXWALL 2.0	
Config	ок Avenview v.1.0.0	Cancel	

Avenview control software menu consists of seven tabs: 'Connect', 'Dashboard', 'View', 'Edit', 'Operation', 'Tools', 'Settings.

Click 'Connect' tab to configure communication between HDM-AVXWALL and Control Software.





In 'Communication Setting' window two methods of communication can be used.

If *IP Connection*' is selected, the default IP address and port number of the processor are '192.168.1.65' and '1024'.

If 'COM Connection' is selected, Select the correct COM port. Baud rate is 9600. Click **OK** to apply and save settings.

Device IP         255.255.255.255         COM         COMPI           ort         1024         BaudRate         9600	Provide Statements and	
ort 1024 BaudRate 9600	IP 255.255.255.25	5 COM COMPLY
	1024	BaudRate 9600 *
IP Subnet Plask PIAC	Subne	t Mask MAL

Device IP 255.255.255 COM COM	-
	51 . Cal
Port 1024 BaudRate 9600	w.
Advance 8	
IP 255.255.255 Gateway IP 255.2	55.255.255
Subnet Mask 255.255.255 Port 1024	
MAC 00-08-00+00+ -00-08 Apply	Cancel

Click '**Connect**' to establish communication, Connection should light up green on the top right side section of the software

	ଲି DASH	IBOARD	© VIEW	🖉 EDIT		🛠 TOOLS	® SETTINGS
Connect Cor	munication	Configuration	✓ ✓ Test	Disconn	ect Exit		



If communication settings are not correct a "Connection failed" error message will pop-up. Please re-check communication settings and try again.



The possible reasons causing above error could be:

- No Power to HDM-AVXWALL or it is in sleep state. If this is the case, check the power and restart the HDM-AVXWALL
- The serial connection is not well established. Please ensure that drivers are properly installed and all cables are securely connected. Check device manager, and ensure that RS-232 to USB Adapter is assigned COM Port # and there is no exclamation mark.

#### Configuration

Click on **"Configuration**" from the top tabs menu. Users can set the output resolutions, layout, aspect ratio and Bezel correction for up to 4 groups of connected video walls.









### **Test Signal**

**'Test' tab** allows users to test the connection between processor and displays by transmitting signals of pure colour or grid to the displays.

RD 👁 VIEW 🖉 EDIT 🛱 OPERATIO	DN 🕺 TOOLS 🗬 SETTINGS
guration Test Disconnect Exit	
Test Colors	(x
Color	
Grid	Show color on startup
Gind On Gind OFF	U les VINO
CK	Cancel

Click 'Disconnect' to disconnect the connection between the Processor and Control Software



Click 'Exit' to exit and close PC control software





#### Input Management

The signal source list is located on the left panel of the software UI. Input source will turn green when input signal is detected on the corresponding channel.



Advanced Settings including rename and modify of any Source can be accessed by **right clicking** on any of the source list icon.





### (B) DASHBOARD:

#### I. Presets

Saving and Loading Presets

#### Click on "Dashboard"

Click **"Save"** to save the created Video wall including layout, size and source windows Click **"Open"** to load the created Video wall including layout, size and source windows

	DASHBOARD	💿 VIEW 🖉 EDIT		TOOLS 🧬 SETTI	NGS		
Open New	↓ Save	Lock	Layer Mode	Bring to Front	Send to Back	Close All	

Layouts can be saved with a unique ID and name to be easily recalled

Layout		$\otimes$
Preset ID	5	
Preset Name	Preset 5	
ОК	Cancel	





"Lock" Locks open layout windows on the video wall from being controlled

"Layer Mode" allows control over multiple open windows on the video wall

"**Bring to Front**" moves the selected window in the video wall to front. Right Click on any layout windows to send to front, send to back or Maximize the selected input.







\*

Lock





"Send to Back" moves the selected window in the video wall to back

"Close All" closes all open windows of the video wall

ource: 2 ae: 1911 x 1080 ocation: 0 x 2160

To **delete** presets: Right Click on saved presets and select delete

NECT 🕺 DASHBOARD 🐵 VIEW 🖉 EDIT 🗮 OPERATION 🕺 TOOLS 💣 SETT Layer Mode Bring to Front Send to Back Close All -Lock 0 ↓ Save RESET 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 10 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 43 35 36 37 38 39 40 Delete L B X X 2 n H X Searce: 2 Size: 1911 x 1050 f.comice: 1218 x 1410









## (C) VIEW:

		ew 🖉 edit 🛱	OPERATION 🕺 TOOLS	
Preview	Cards	Slideshow	Refresh	

"**Preview**" Launches preview column on the right side of the software UI. User can preview the input signal by clicking the "play" button. The input signal can be previewed in a larger window by double clicking each preview window.

- Play: Plays sources in preview list
- Stop: Stops playing preview list
- Find: Searches for specific preview window
- Refresh: Refresh the preview list
- Setup: Modify the preview list resolution and IP address









	Input	-	1	Out	put		_	_	_	_	_	_	_	-	_
1	2	3	4	5	6	7	B	9	10	11	12	13	14	15	16
0	0														
A	2														
11111															
9															
<b>B</b>	n														
THE OWNER	IJ														
2															
1111 22	D														
	"														
2	2														
NO.001	D														
-															
0	0														

"Slideshow" Controls auto play of preset layouts in loop with cutomized interval settings



	Layout ID	Layout Name	
		and the second second second	
Interval Set	ting	Select Al Sninct None	
	Minuter	6 Seconds	



"Refresh" Refreshes the displayed video wall



### (D) EDIT:



**"Group"** Allows arrangement of display screens in the software to match physical arrangement of displays

"Preset List" Allows editing of preset layouts

**"Background"** Allows adding a background image (.bmp) to the video wall to be displayed when no video signal is displayed.

### (E) OPERATION:

🗢 CONNECT 🟠 DA	ASHBOARD 👁 V	IEW 🖉 EDIT 📮	OPERATION	% TOOLS	
Wall I	Wall 2	Wall 3	Wall 4		

The HDM-AVXWALL supports up to 4 separate video wall setups to be controlled from this same software

Selecting any of "Wall I, Wall 2, etc..." displays the preconfigured video wall configuration

## (F) TOOLS:



"EDID" Allows display identification to sources connected by learning modes
 "Find Camera" Adds IP cameras and modify IP settings
 "Import": Allows importing of previously saved file of presets and layout configurations
 "Export" Allows exporting of presets and layout configurations into a file to be used for easy future configurations or with other connected video walls

### (G) SETTINGS:



"License": Displays software license and copyrights agreement
"Users": Controls user names and passwords
"Firmware": Displays device firmware information
"Window Font": Changes in software font size
"Language": Choose different languages (more languages will be supported in future)
"Version": Displays software version
"About": Display information about software, device and Avenview



## 6. SPECIFICATIONS

Item	Description
MODEL	HDM-AVXWALL
UNIT DESCRIPTION	Multi-Input Image Video Wall processor with 4K support
	CVBS,YPbPr,VGA,DVI, HDMI, SDI, DisplayPort,UTP and
VIDEO FORMAT SUPPORT	optical fiber
LOCAL OUTPUT	Yes -DM
SUPPORTED RESOLUTIONS	SD Up to 1080p, 4K (4096x2160@24Hz)
AUDIO SUPPORT	No
SYSTEM CONTROL	TCP/IP
	- Human body model — $\pm$ I 5kV (air-gap discharge) &
ESD PROTECTION	$\pm$ 8kV (contact discharge) - Core chipset — $\pm$ 8kV
INPUT CONNECTORS	See Pages 10-14
OUTPUT CONNECTORS	See Pages 10-14
RCA CONNECTOR	75Ω female
DVI CONNECTOR	DVI-I (212-pin female, digital only)
RJ45 CONNECTOR	WE/SS 8p8C with 2 I ED indicators
RS232 CONNECTOR	DE-12 (12-pin D-sub f emale)
DIMENSIONS (L X W X H)	<b>Unit</b> : Based on Form factor
DIMENSIONS (L X W X H)	Package: Based on Form Factor
POWER SUPPLY	AC 100-240V
POWER CONSUMPTION	60 Watt (max)
Environmental	
OPERATING TEMPERATURE	32° ~ 104°F (0° to 40°C)
STORAGE TEMPERATURE	-4° ~ I40°F (-20° ~ 60°C)
RELATIVE HUMIDITY	20~120% RH (no condensation)



# 7. INPUT / OUTPUT CARDS

## 7.1 Input cards

7.1.1 Input Port - VGA

ort - VGA	$\bigcirc$		• . • • • • • • • • • • • • • • • • • •
Signal For	mat	RG	BHV
Maximum Re	Maximum Resolution		0*1200
Color D	Color Depth		ts/pixel
Horizontal Scanning Ration		I5KHz-90KHz	
Synchronization		Separ	ate sync
Customised	Customised EDID		′ES
Impeda	Impedance		′5Ω
Reference	Reference Level		′Vp-p
Physical	Port	RGB: 15pins I	D-sub(DB15/DE- 15F)

7. I . 2 Input Port - YPbPr

Signal Format	Component EIA-770.2-A
Maximum Resolution	1920*1080
Color Depth	32bits/pixel
Horizontal Scanning Ration	I5KHz-90KHz
Synchronization	Separate sync
Customised EDID	YES
Impedance	75Ω
Reference Level	0.7Vp-p
Physical Port	RCA*3



 $(\mathbf{F})$ 

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7.1.3 Input Port		₿० ШШШĦ ० ₀ (ШШШĦ 0 <mark>80 ШШШ</mark> Ħ 0 🛞		
	Signal Format	DVI-D digital T.M.D.S. signal in DVI 1.0		
	Maximum Resolution	1920*1200		
	Color Depth	32bits/pixel		
	Signal Level	T.M.D.S 2.9V-3.3V		
	Customised EDID	YES		
	Impedance	50Ω		
	Maximum Data Rate	4.95Gbps		
Physical Port		24+5 pins/DVI-I		
7.1.4 Input Por	t - CVBS	<b>O O</b> <del>O</del>		
	Standard	PAL/NTSC		
	Resolution	480i/576i		
	Impedance	75Ω		
	Reference Level	1Vp-p		
	Physical Port	BNC		
7.1.5 Input Port - SDI				
	Signal Format	HD/3G-SDI		
	Resolution	720p/1080p		
	Impedance	75Ω		
	Maximum Data Rate	3Gbps		
	Physical Port	BNC		



7.1.6 Input Po	ort - HDMI 🕑 🥌 📼 •	<b>. . . . .</b>		
	Standard	HDMI 1.3		
	Maximum Resolution	1920*1200		
	HDCP	Yes		
	Customised EDID	YES		
	Maximum Data Rate	4.95Gbps		
	Physical Port	HDMI Type A		

7.1.7 Input Port - Dual-link DVI

**% .......** o **% ......** o

Signal FormatDual-link DVIMaximum Resolution4K\*4KImpedance50ΩCustomised EDIDYESMaximum Data Rate9.9GbpsPhysical Port24+5 pins/DVI-I

Ð

7.1.8 Input Po	ort - Optical Fibre 🛞 🔯		Ð
	Signal Format	Single mode optical signal	
	Maximum Resolution	1920*1200	
	Front-end Device	TriF-TISD or TriF-TISG	
	Maximum Transmission Distance	l 0km	
	Physical Port	LC	



 $(\mathbf{F})$ 

## 8.2 Output cards

7.2.1 Output Port - DVI/VGA		
	Signal Format	DVI-I in DVI 1.0 standard
	Maximum Resolution	1920*1200
	Color Depth	32bits/pixel
	Maximum Transmission Distance	25m(DVI)
	Physical Port	24+5 pins/DVI-I ( Adapter required for VGA
	Signal Level	T.M.D.S. 2.9V-3.3V
	Impedance	50Ω

# 7.2.2 Output Port - Twisted Pair 🛞

Signal Format	Twisted pair differential signal
Maximum Resolution	1920*1200
Color Depth	32bit/pixel
Maximum Transmission Distance	100m
Physical Port	LC

Ŧ

7.2.3 Output	Port - SDI			
	Signal Format	HD-SDI/3G-SDI		
	Resolution	720р/1080р		
	Impedance	75Ω		
	Output Backup	Yes		
	Physical Port	BNC		



## 7.2.4 Output Port - Optical Signal

Signal Format	Single mode optical signal
Maximum Resolution	1920*1200
Rear-end Device	FO-DP/HDM4K-300EMIX
Maximum Transmission Distance	10km
Physical Port	SC



# 8. Models and Scales

Models	Features
Video-Wall Processor I	Two windows per screen
Video-Wall Processor II	Four windows per screen

Models	Scales	Dimension (mm)	Input		Output	
			DVI/VGA/HDMI/S DI/YPbPr/Optical/ Twisted-pair	Dual-link DVI	CVBS	
Video-Wall Processor I	2U	438(W)*300/316(D)*89(H)	8	4	32	8
	4U	438(W)*300/316(D)*178(H)	16	8	64	16
	8U	438(W)*300/316(D)*356(H)	32	16	128	36
	I4U	438(W)*300/316(D)*623(H)	64	32	256	72
	20U	438(W)*300/316(D)*890H)	128	N/A	512	72
	28U	438(W)*300/316(D)*1246(H)	128	36*	512	144
Video-Wall Processor II	4U	438(W)*300/316(D)*178(H)	24	4*	96	8
	8U	438(W)*300/316(D)*356(H)	52	8*	208	18
	I4U	438(W)*300/316(D)*623(H)	96	16*	384	36
	22U	438(W)*300/316(D)*979(H)	128	36*	512	72
	2U	438(W)*300/316(D)*89(H)	8	4	32	4
	4U	438(W)*300/316(D)*178(H)	16	8	64	8
	8U	438(W)*300/316(D)*356(H)	32	16	128	18

\* means dual-link dvi input cards are only effective in specified input slots



# 9. GENERAL TROUBLESHOOTING

PROBLEM	POSSIBLE SOLUTION
	<ul> <li>Missing VC++ runtime library</li> </ul>
Cannot install software	<ul> <li>For 32 bits system, please install vcredist_x86.exe</li> </ul>
	<ul> <li>For 64 bits system, please install vcredist_x64.exe</li> </ul>
	Please check the input signal
No Image	<ul> <li>Make sure the each output and input port connected to the</li> </ul>
	corresponding device.
	<ul> <li>Use high quality video cables</li> </ul>
	<ul> <li>Check output cable for any damage or exceed transmission distance</li> </ul>
	Check if cable is connected properly.
Color cast on image	<ul> <li>Check if cable is damaged.</li> </ul>
	Check software color adjustment.
	Check display color adjustment.
	Check port screws if tightened.
	Use premium quality video cables
	<ul> <li>Adjust the color balance of the display.</li> </ul>
	<ul> <li>Re-adjust the color tune by controlling software</li> </ul>
Shaking or	Check cable length, long cable causes serious signal attenuation signal
noise on image	Check source if unstable or damaged cables connected
Dark edge on the	<ul> <li>Check if video signal has been cropped by the display</li> </ul>
dispiay	<ul> <li>Check if Inappropriate adjustment of the video is made on the controlling software</li> </ul>
	<ul> <li>Reset settings to Default using control software, then re-adjust to desired configurations.</li> </ul>



### Notice

- 1. If the DVI or HDMI device requires the EDID information, please use 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 LAN cable and ASTRODESIGN Video Signal Generator VG-8512C.3
- 3. The transmission length is largely affected by the type of LAN cables, the type of HDMI sources, and the type of HDMI display. The testing result shows solid LAN cables (usually in bulk cable 300m or 1000ft form) can transmit a lot longer signals than stranded LAN cables (usually in patch cord form). 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 LAN cables are your only choice.
- 4. EIA/TIA-568-B termination (T568B) for LAN cables is recommended for better performance.
- 5. To reduce the interference among the unshielded twisted pairs of wires in LAN cable, you can use shielded LAN cables to improve EMI problems, which is worsen in long transmission.
- 6. Because the quality of the LAN 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 LAN cables. For resolution greater than 1080i or 1280x1024, a CAT6 cable is recommended.
- 7. If your HDMI display has multiple HDMI inputs, it is found that the first HDMI input [HDMI input # I] generally can produce better transmission performance among all HDMI inputs.









**Control Your Video** 

# **TECHNICAL SUPPORT**



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