

Control Your Video

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

HDMI H.264 IP MATRIX DECODER/ENCODER PC CONTROL SOFTWARE



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APP GUIDE FOR THE M-SERIES DEVICES

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ABOUT THIS DOCUMENT

This document specifies how to configure any PC to work with the M-series devices on any Windows compatible PC/Laptop.

Software Version v5.07.P2.c Firmware Version v2.5.17/2.7.3

The firmware and software versions listed in this document have been tested within the expected environment the units can support and are fully supported by Avenview.

It is recommended that users read this entire document before attempting the both setup and firmwareand fully understand all the steps and procedures outlined in this document.

This document was last updated 12/01/2015

Report any bug issues to:- <u>support@avenview.com</u>



WARNING –Please make sure to have the following when using this guide for an exsiting setup:

- HDM-C6MXIP-S and HDM-C6MXIP-R with 12V 1A power supplies
- CTRLPRO-MIP IP Controller
- 6 x Ethernet (RJ45 Patch Cable 6 to 10ft or within the setup CAT5/6 cable runs)
- Wireless Gigabit Router with 802.11/a/b/g/n 2.4 GHz; 5 GHz
- Cisco SG Series switch
- RS-232 to bare wire for phoneix RS-232 out
- 3.5mm headphones jack to bare wire (external audio)

GENERAL INSTRUCTIONS

- 1. Before starting the setup guide or firmware upgrade ensure that the M-Series unit are powered by the supplied power supply 12V IA or to proper POE specifications.
- 2. PC Requirements-Windows® XP/Windows Vista®/Windows® 7 /Windows® 8/Windows® 10
- Ensure Laptop or desktop is plugged into AC power during the update process. It is not
 recommended to use battery power during the setup/upgrade. Do not unplug power from the unit
 at any time during the firmware update process as this could lead to malfunctions.



OVERVIEW

The following table describes the firmware version the devices has to be at to ensure a stable working environment with Windows Operating sytem.

Products and Versions

Products	Versions
CTRLPRO-M (PC Console)	V5.0.1.P2.c
CTRLPRO-MIP	API v I.4/v5.0.7 P1 (v5.0.7 P2)
HDM-C6MXIP-S (Sender/Encoder)	V2.5.18
HDM-C6MXIP-R (Receiver/Decoder)	V2.7.3
HDM-C6MWIP-S (Sender/Encoder)	V2.5.18
HDM-C6MWIP-R (Receiver/Decoder)	V2.7.3

24-Port Single Switch Networking

N + M (No more than 20)

Deployed by the field requirement

3 M-SERIES PC IP CONSOLE v 5.0.1.P2

Avenview M Series Control Software is a Windows based application designed to easily manage multiple H.264 M-Series products which are the HDM-C6MXIP-S and HDM-C6MWIP-R connected to a gigabit network switch.

This application can be used in environment of a single user managing video / audio matrix switching, duplicating and creating videowall scenes. This software can also send CEC/ RS232 code/data for controlling serial commands on an external device.

Features:

- Simple-to-use, user-friendly, Windows-based PC configurator;
- Support multiple layout configurations;
- Drag /Drop graphical user environment;
- Operations of IP-based products, including H.264;
- Supports small and large modular matrix configuration;
- Supports small and medium video wall configuration;
- Supports CEC and serial data transmission;
- Easily search for TX and RX devices in the same network segment;
- Supports creation and editable scene configuration;
- Offers scene scheduling at a specific day and time;
- Supports configuration information auto saving, import and export;
- Supports device info IP address, MAC address and type;
- Views real-time device status and log information for troubleshooting.



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I. M-SERIES PC CONFIGURATOR

Follow the steps below before attempting to use the Avenview PC configurator

STEP1: Please ensure your PC/Laptop is assigned to a static IP address and your computer is configured to allow this software through the firewall.

If you have not attempted the above actions before, please see the guide lines below.

Setting a Static IP -Laptop/PC

This software cannot communicate with the devices connected on the network unless its has the same IP segment. By default the devices has been preconfigured with AutoIP protocol, and its IP address is 169.254.X.X subnet mask is 255.255.0.0.

A computer withg Windows 7 was used as an example;

- I.I Click Start.
- 1.2 Choose Control Panel > Network and Internet > Network and Sharing Center > Change Adapter Settings, right click Local Area Connection, and then choose Properties.



Local Area Connection Properties
Connect using:
Realtek PCIe GBE Family Controller
Configure
This connection uses the following items:
Client for Microsoft Networks
🗹 🜉 QoS Packet Scheduler
File and Printer Sharing for Microsoft Networks
Internet Protocol Version 6 (TCP/IPv6)
Internet Protocol Version 4 (ICP/IPv4)
Link-Layer Topology Discovery Mapper I/O Driver
Enk-Layer Topology Discovery Responder
Description
Transmission Control Protocol/Internet Protocol. The default
across diverse interconnected networks.
OK Cancel

1.4 General -Select Use the following IP address.

After configuring the settings in the following example, click **OK**.

IP address: 169.254.2.5

Subnet mask: 255.255.0.0

Internet Protocol Version 4 (TCP/IPv4)	Properties ? X					
General						
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.						
Obtain an IP address automatical	ly					
Use the following IP address:						
IP address:	169.254.2.5					
Subnet mask:	255.255.0.0					
Default gateway:	· · ·					
Obtain DNS server address autor	natically					
O Use the following DNS server add	resses:					
Preferred DNS server:						
<u>A</u> lternate DNS server:	· · ·					
Validate settings upon exit	Ad <u>v</u> anced					
	OK Cancel					



2 FIREWALL COMPATIBLITY

Follow the steps below to configure windows firewall

STEP 2: Some PC firewalls configurations may block some features within the M-SERIES PC configurator. If you have not attempted the above actions before, please see the guide lines below

Allow an App through Windows firewall

This software cannot communicate with the devices although you have all equipment on the same IP segment. Please check your firewall.

A computer withg Windows 7 was used as an example;

- 2.1 Click Start.
- 2.2 Control Panel > System and Security > Windows Firewall > Allowed Programs, highlight Configuration tool for HDMI over IP. Check both boxes Home/Work (Private) and Public then click OK.

urtern and Security & Windows Firswall & Allowed Departure		ch Control Danol	×
sistem and security + windows Pirewail + Allowed Programs	Jean	ch Control Panel	<u>م</u>
Allow programs to communicate through Windows F	irewall		
To add, change, or remove allowed programs and ports, click Change	rettingr		
to add, change, or remove anowed programs and ports, cited change	seconds.		
What are the risks of allowing a program to communicate?	that the second se	inge settings	
Allowed programs and features:			
Name	Home/Work (Private)	Public ^	
Configuration tool for HDMI over IP.			
Connect to a Network Projector			
Core Networking	✓		
Create a System Repair Disc			
Distributed Transaction Coordinator			
File and Printer Sharing			
HomeGroup			
iSCSI Service			
Media Center Extenders			
Microsoft Office Groove			
Microsoft Office OneNote			
Microsoft Office Outlook		v -	
	Details	Remove	
	Allow anothe	er program	
	ОК	Cancel	

2.3 Windows Security Alert

This method is another way you can configure the firewall, this window may pop up when the M-series PC configurator is launched. Select a network you would allow this software to communicate with administrator privileges.

Please select both private and public networks, and then click Allow access.





3. INSTALLATION M-SERIES PC CONFIGURATOR

To setup Avenview M-SERIES PC CONFIGURATOR please follow these steps:

- 1. Download the M-Series PC Configurator from the Avenview website>HDM-C6MXIP-SET>downloads
- 2. When the software has finished downloaded to the Laptop/PC
- 3. Unzip the compressed files in a folder where you can easily access.
- 4. Please locate and double-click on the .exe file
- 5. This will launch the M-Series PC configurator.

📦 inport 🙀 Export 🕆 Serial 🔘 CEC 🕱 Schedule 🧮 Enformation 🖺 Log 🎐 Longuage 🔮 About						
Devices Search X Delete If Restore Save also to devices If Restore If Restore	Scene				Crea	ate Modify X Remove Apply ad automatically Status: Z Edit
Alias Type Host Name	TX:	TX:	TX:	TX:	TX:	TX:
	RX:	RX:	RX:	RX:	RX:	RX:
	TX:	TX:	TX:	TX:	TX:	TX:
	RX:	RX:	RX:	RX:	RX:	RX:
	TX:	TX:	TX:	TX:	TX:	TX:
	RX:	RX:	RX:	RX:	RX:	RX:
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	TX:	TX:	TX:	TX:	TX:	TX:
	RX:	RX:	RX:	RX:	RX:	RX:

4. M-SERIES PC CONFIGURATOR

🚺 Import	Export	CEC	觉 Schedule	🖏 Information	🖺 Log	👤 Language	About

Toolbar

	Allows the user to import a file from a folder or USB storage device for implementing the same configuration on current job site.		
	NOTE: When the PC configurator is closed, the current configuration is saved in the directory of the current user as file name "project.hoi" To locate the file, click Import and the directory dialog box will appear and view the file location.		
	VARNING: Do not modify or delete this file. Errors may occur during program operation.		
EXPORT Export	Allows the user to export the current configuration file in to folder or USB storage device for backup purposes or to configure another job site. Configuration file with extension (.hoi) Scene Configuration (.txt)		
SERIAL	Allows the user to send serial data to external peripheral devices, connected via the phoenix port bare wire to DB9 connector on the rear panel of the devices HDM-C6MXIP/HDM-C6MWIP Only if the devices support RS-232 serial communication would be displayed in the Devices list in the Send Message to Serial dialog box.		
ADevice list	This box displays the devices that are online and compatible with sending RS232 data. The devices can be shown by different Scene configuration for certain RS232 group commands, or group by brand.Example TV all SONY		



Toolbar

B All/Filter by Scene	If the "All" check box is not selected the user can filter the devices by Scene created. When the "All" box is selected all devices are shown in the list. If no scene has been created, then this function will not be avaiable but all the devices connected on the system will show in the list			
C SERIAL PARAMETERS	This section has to be configured correctly with the proper baud rate information of the unit you would like to send data commands to control. Please contact the manufacturer or see the device user guide for the specific information needed.			
D MESSAGE	Allows the user to input the serial commands that has to be sent to the external peripheral devices. The serial commands can support both ASCii or HEX commands. If HEX is required, please click the check box.			
CEC	Consumer Electronics Control (CEC) is an HDMI feature designed to allow the user to command and control CEC-enabled devices connected through HDMI. Example of the compatible TVs' tested and approved. NOTE TV must connected via HDMI cable to the HDM-C6MX/W-R Samsung TV UA40JU6400JXXZ Samsung TV UA40JU6400JXXZ Samsung TV UA46C7000WF Samsung TV UN46D6500VF Samsung TV UN46D6500VF Samsung TV UN46D5000FXA SHARP LCD-40 LX440A SONY TV KDD-55X9000A SONY TV KDL-240 SONY TV KDL-24EX520 This box displays the devices that are online and compatible with sending CEC data. The devices can be shown by different Scene configuration for certain CEC group commands for specific brand. Not Selected - indicates that this device/s will be sending CEC data Selected - indicates that this device/s will be sending CEC data All - When selected all devices are shown, unselected CEC can be sent by Scene /group One Touch Play - One Click would iniate Power ON command through HDMI CEC, only to the devices selected and online.			



Toolbar

SCHEDULE Schedule	This PC control software can schedule a configured scene to be activated at a specific date and time.
	Buttons ADD - Creates a new schedule Modify - Modify/edit a schedule Remove- Deletes a schedule Window A List all the schedules created.
TO ADD SCHEDULE	STEP1: Click Add, a pop up window will appear, NOTE The date must be set ahead of the current PC date and time, neither earlier nor present an error will occur and the schedule will not be created. Scenes must be created before adding a schedule to the particular Scene. STEP2: The PC control software has to be open and connected to the same network as the HDM-C6M-Series units to activate the date and time scheduled.
	When the user clicks on a device in the list then "information" in the toolbar, this box appears in the software at the bottom left of the listed devices. A quick veiw of the general information is displayed without having to log into the device. <i>Alias/Device Type/IP Address</i>
LOG	When the user clicks on a device in the list then "log" in the toolbar, this box appears in the software at the bottom right of the listed devices. All communicted data from the PC software to and from the Transmitters and Receivers connected on the same network is recorded and shown as a log. NOTE: User can save this log info for troubleshooting and also emailing to Avenview tech support to help diagnose the problems.





DELETE X Delete	This buttons allows the user to delete selected devices in the search list area. To delete multiple device press CTRL+Left click on the device, they would be highlighted to show it is selected.
SAVE ALIAS TO DEVICES Save alias to devices	This button is a short cut to renaming the devices alias names very quickly. STEP I: The user can double click on the unit he would like to change to their preference alias name and type with keyboard on PC/Laptop. STEP 2: When completed all the changed alias names press "save alias to devices" applying the action. Alias Type Hos TV2 RX IPD SCO09-341B2247FFEB SCOL SCO AppleTV TX IPE
DEVICE SETTINGS	To access the device settings please in right click on any of the devices in the search device area, a list of available functions will appear.
CONFIG	When choosen a dialog box will appear detailing the device settings. Pevice config Pevices: AppleTV P Address Settings OH/P OF Static IP Address: 169 25 25 25 0 Cancel
DEVICE	This specifies the device and its displayed name that is selected.
HOST NAME	The unit's factory default ID and MAC address cannot be changed.
ALIAS	User defined naming convention- containing maximum of 80 characters.
IP ADDRESS SETTINGS	Auto (Factory Default) /DHCP Auto IP assigned /STATIC User defined
IP ADDRESS	Displays the current IP address of the selcted unit.
SUBNET MASK	Subnet mask range the device is set (can be only changed in Static Mode)



VIDEO SETTINGS	This function has different usages in both TX and RX devices, please see the TX functions below: The Basic Tab is only used for RX devices: The Advance Tab defines video parameters to adjust in increments to allow custom video streaming profiles within any setup. NOTE: User can only modify the parameters if the box is checked.			
	🥜 Video Settings			
	Basic Advanced			
	Modify Advanced Parameters			
	Profile	H. 264 High Profile 🔹		
	Rate Control	vbr 🔻		
	Max Bitrate(Kbps)	20000	2~40960	
	Min QP	0	0~51	
	Max QP	40	0~51	
	GOP	60	1~65535	
	FPS	60	1~60	
	Iransport Type	raw		
		Ok	Cancel	
	L			
PROFILE	The user can choose three	H.264 profiles, which ca	an be used in different	
(a) H.264 Baseline Profile	enviroments to allow			
(c) H.264 High Profile	(a) Frimarily for video content	al data loss robustness.	w-delay multipoint video	
	(b) Used for standard-definit	tion digital broadcast. M	aintaing a balance	
	(c) Optimal performance for streaming high-definition/quality video. Low			
RATE	(a) Constant Bit Rate - is use	ed where network ban	dwidth is limited and	
CONTROL(a)	requires the system to be e	qual to the available ban	dwitdh.	
	(b) Variable Bit Rate - is use	d for high quality audio/	video encoding accurately	
(c) FIXOP	(c) Fixed Quantization Para	meter - when the user s	specify a given subjective	
	quality value, then the enco	der allocates bits as nee	ded to achieve the given	
	level of quality.QP MIN/MA	X FUnges from 0 to 51.	ç	
MAX BITRATE(KPS)	This adjusts the encoding st	ream.Max value is best	but it also require higher	
MIN-OP	network bandwidth. Bitrate	es value : 2-40960.		
	Minimum value for Quantiza	ation Parameter 0-51.		
	Maximum value for Quantization Parameter0-51.			
GOP	Group of Pictures - a group	of consecutive pictures	within a coded video	
	stream. Within the pictures, visible frames are generated. The higher the value the higher the image quality. I-65535			
FPS	Frames per second is used to set the frequency at which the TX captures the			
	video stream. When the value is increased also the image motion quality. I-60			
TRANSPORT TYPE	RAW transmits the H.264 bit stream without any container information.			
TS	Transport Stream carry mu	ltiple 'streams' in a singl	e container.	



VIDEO SETTINGS	This function has different usages in both TX and RX devices, please see the RX functions below: The Basic Tab is only used for RX devices:		
	Video Settings Basic Advanced HDMI Video Output IO80P (60fps) IO80P (50fps) IO80P (50fps) IO80P (20fps) IO80P (20fps) IO80P (20fps) IO80P (20fps) IO80P (20fps) IO80P (20fps) IO80P (50fps) IO80P (20fps) IO80P (20fps) IO80P (20fps) This user can choose which resolution the connected displays supports. If		
	required to output a desired resolution for a display device Ex projector.		
HIGH QUALITY VIDEO	This will allow high memory storage at the decoder (low compression high		
LOW DELAY	latency), but very crisp picture. Will enable low memory storage at the decoder (Fast Switching low latency)		
AUDIO SETTINGS	NOT APPLICABLE with M-Series units.		
UPDATE	Update any "config" changes made to the device.		
DELETE	Permanently remove this device from the software search list.		
TURN ON	Enable sound from phoniex port on RX units only.		
MUTE	Disable sound from phoniex port on RX units only.		
TURN ON OSD	NOT APPLICABLE with M-Series units.		
TURN OFF OSD	NOT APPLICABLE with M-Series units.		
BACKGROUND SETTINGS	NOT APPLICABLE with M-Series units.		
RESET EDID	NOT APPLICABLE with M-Series units.		
RESET	This will RESET the device to factory settings. This includes the IP and Alias.		
RESTART	This will RESTART or reboot the device (Troubleshooting purposes or if the device has been updated with firmware)		



SCENE AREA	On the right window of the software the user can configure scenes and layouts within the Scene area.				
	#Front information formation TeST TeST Test Test				
	Dott with its UNNUC Line Type Rast Hame IFE:000-4130220160 TX IFE:000-4130220160 TX	TX: directTV2 RX: IPD1000-341	B22: OTX: AppleTV B22: ORX: IPD1000-341B	TX: AppleTV RX:	TX: AppleTV RX:
	TTEDLOG-3412220419 RK ITELLOG-3412220 discritiv: TK ITELLOG-3412220 Applety TK ITELLOG-341228.	TX: AppleTV RX:	TX: AppleTV RX:	TX: directTV2 RX:	TX: directTV2 RX:
		TX: AppleTV RX:	TX: AppleTV RX:	TX: directTV2 RX:	TX: directTV2 RX:
		TX: AppleTV RX:	TX: AppleTV RX:	TX: directTV2 RX:	●TX: directTV2 RX:
	×				,
CREATE	When clicked allows the user to create a Scene <i>(layout of screens single or in a group).</i> The window will appear to enter the layout Name and size (Row and Column) of screens required within the scene.				
	9 Create Scene				
	Name:				
	Row: 3 Column: 3	•			
MODIFY Modify	When clicked allows the user to modify any scene created.				
	When clicked allows the user to remove the current scene from the list.				
APPLY	This button must be presse successfully apply the chang	d when a o ges made.	change is m	nade to an	y scene to
APPLIED Applied automatically AUTOMATICALLY	When checked the user wo change is made to a scene. device it will automatically t	ould not ha Also if the take effect	ve to press TX is drag	apply ever and drop	ery time a to a RX
SCENE STATUS	This indicates the	e scene ha	s been upd	lated and s	saved
	This indicates the	e scene is o	currently b	eing edited	1
	This indicates the	scene is a	pplied succ	cessfull	
	This indicates the has lost connection	scene is fa	iled to app ork.	ly (Units c	offline or PC/Laptop



	1				
HOW TO ADD DEVICES IN THE SCENE	 This software allows many different way of adding devices to the screens in the scene created. The methods are: Drag and drop - the user can drag either a TX or RX from the device list and drop the device on the designated screen. Right Click- the user can right click on the white space of the scene and drag the mouse to highlight the unselected screens. Then right click on the selected screens and choose from the menu list. Ctrl - the user can hold the Ctrl button and left click with the mouse to highlight the unselected screens and choose from the menu list. Ctrl + A- the user can hold the Ctrl + A button to selectall the unselected screens. Then right click on the selected screens. 				vices to the screens in K from the device list the of the scene and hen right click on the with the mouse to he selected screens ctall the unselected choose from the
	TEST			Applied automatically Status: 😼 U	emove Apply
	TX: directTV2 RX: IPD1000-3418	●TX: AppleTV 322: ●RX: IPD1000-341B2;	2: TX: AppleTV RX:	●TX: AppleTV RX:	
	TX: AppleTV RX:	TX: AppleTV RX:	TX: directTV2 RX:	TX: directTV2 RX:	
	TX: AppleTV RX:	OTX: AppleTV RX:	TX: directTV2 RX:	TX: directTV2 RX:	
	TX: AppleTV RX:	Change RX RX: A Change RX Remove TX Remove RX Select All	K: directTV2 X:	TX: directTV2 RX:	
	£	Remove All Combine Split Video Wall Prope Tum 050 On Tum 050 Off Serial CEC Control	rties		, ·
CHANGE TX	When clicked within the net any screen.	a list of all T> twork setup	K encoders The user ca	will appear that n choose any T	: is connected and online X to be added to the
CHANGE RX	When clicked a list of all RX decoders will appear that is connected and online within the network setup. The user can add the RX to the screen that corresponds to the project layout.				
REMOVE TX	Removes a TX from the screen/s selected				
REMOVE RX	Removes a RX from the screen/s selected				
SELECT ALL	Selects all the	screens withi	n the scene	. Also Ctrl+A	
REMOVE ALL	Removes all t	he devices fro	m the scene	е.	
COMBINE	When a group of screens are selected, this function combines the rows and columns to enable the videowall function.				
SPLIT	When the user wants to disable a videowall group of screens and enable the function to matrix mode with the same source showing full screen in each display.				



4.1 DEVICE PROPERTIES

VIDEOWALL PROPERTIES	This function is only avaiable when the screens are combined in videowall mode. Allows the user to edit the videowall properties.	
CHANGE RX	2 Materia Mail Properties 1 State State 333 1 State State 1 State State	
TURN OSD ON	NOT APPLICABLE with M-Series units	
TURN OSD OFF	NOT APPLICABLE with M-Series units	
SERIAL	Activates the serial control function. See Page 5 "SERIAL"	
CEC CONTROL	Activates the CEC control function. See Page 6 "SERIAL"	

5 CREATING A VIDEOWALL

CREATING A VIDEOWALL

STEP I Identify which input is connected to the TX you would like to display on the videowall.

STEP 2 Identify which displays are connected to the RX's you would like to be the videowall.

STEP 3 Click **"Create"** Example 2x2 videowall. Name 2x2

STEP 4 Right Click on any of the four screens and choose "Select All"

Some Constant, Maddy, M

list of encoders with inputs to be choosen for streaming onto the videowall.

Repeat this step by highlight "**Change RX**" and this will show a list of decoders connected to displays to be choosen displaying the video across the videowall.

NOTE: The software also allows drag and drop TX or RX from the left side search list onto the right side Scene area.



STEP 5 When Step 4 is fully completed with all devices selected. In same scene area press **CTRL+A** to select all screens, then right click and choose **"Combine"**.

STEP 6 When "Combine" is choosen a pop up window will appear "Vidoewall Properties screen"



5.1 CREATING A VIDEOWALL

SCENE TAB LIST	Displays the list of the current scene name and if associated with a videowall.
BASIC SETTINGS TAB	Right hand column the user can specify a name to identify the videowall. Also adjust the compensation of the bezel to allow proper image across the videowall.
NAME	User can specify the name to identify the videowall created within the scene. This name can be also used for recalling the different presets created with a 3rd party control system.
BEZEL AND GAP COMPENSATION	If the video image does not show correctly-missing characters or pieces of the images from the actual video. This section corrects the video to properly fit within the videowall are created by adjusting the below
	 OW- Outside Width of a single display including the bezel. OH- Outside Height of a single display including the bezel. VH- Inside Height of the viewing area within a single display. VW- Inside Width of the viewing area within a single display.

6 CAPTURE/VIEW ENCODER STREAM

VIEW TX VIDEO STREAM	To view the preview stream from the HDM-C6MX/WIP-S encoder, a vi decoder capable of supporting Common Intermediate Format (CIF) vid signal (352 × 288) from a MPEG-4 AVC stream. This format is commonly used for Web conferencing solutions and conse video chat products. Best results CIF format uses 4:3 aspect ratio (produciing a nearly square video as CIF formatting can change the aspect ratio of the original conte			
	Depending on some installs the integrator may want to view the TX stream in thier 3rd Party control system remote control option. Please use the URL link example to configure or view in the system. NOTE: The system must be compatible with capturing URL streams. http://HDM-C6MXIP-S_IP_address/stream			
	For example: http://169.254.5.219/stream			
SOFTWARE EXAMPLE VLC	Open Media File Disc Please enter a network URL: http://159.254.5.219/stream rep://svvv.example.com/stream.av/ rep:/svvv.example.com/stream.av/ rep:/svvvv.example.com/st			
STEP I Click MEDIA>OPEN MEDIA TYPE NETWORK	Show more options Play Cancel			



6. TROUBLESHOOTING

Problem	Possible Solution			
PC Configurator or Maintain Tool cannot find devices	 Check the Windows Firewall. Taking Windows 7 as an example: Click Start menu, go to Control Panel System and Security > Windows Firewall > Allowed Programs, select Home/Work (Private) and Public for PC configurator and Maintain Tool. 			
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	PC Configurator (HDMI over IP) Maintain Tool			
	 Check the IP address and subnet mask of your computer. The computes Sender, Receiver and switch should be in the same network segment. Therefore, set your computer's IP address as 169.254.X.X and subner mask as 255.255.0.0. For more information, see the description in the upgrading guide. Check that the switch is configured properly, and that IGMP snooping enabled. 			
	I. Check all devices are powered on.			
	2. Check that all the cables are qualified and connected properly.			
Display Showing No Picture	Check the status of the STATUS indicators on IPD1000s to see if Senders and Receivers are linked correctly. If link exceptions occur, link them using the PC configurator on your computer. For more information about the STATUS indicators, see "Front Panel" section of Receiver. If exceptions still exist, see the other resolutions to this question.			
	 Check that source switches of Sender are located in the right positions for their video sources. For more information on how to use source switches, see "Top Panel" section of Sender. 			
	Check that each video port of YPbPr and CVBS is connected properly when using YPbPr and CVBS as the video sources.			
	Check that the displays work properly, and that source devices have normal signals output.			



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	5. Check that the displays are switched to the correct source input modes, for example switching to HDMI I if a display's HDMI I port is connected to Receiver via an HDMI cable.
	6. Check that displays support HDCP.
	7. Check that no compatibility issues exist between displays and Receivers. If so, replace the displays with other models.
	 Check that Sender supports the resolutions of the input signals. For more information about the resolutions, see "Specifications" of "Introduction" section.
	 Check that the switch is configured properly, and that IGMP snooping is enabled.
	1. Check that all the devices are powered on.
	2. Check that all the cables are qualified and connected properly.
	3. Check the status of the STATUS indicators on Receivers to see if Senders and Receivers are linked correctly. If link exceptions occur, link them using the PC configurator on your computer. For more information about the STATUS indicators, see "Front Panel" section of Receiver. If exceptions still exist, see the other resolutions to this question.
	4. Check that the A/V devices work properly.
	5. Check that the A/V devices have normal signals output.
	6. Check that the A/V devices are not set to mute or 0 for volume.
	7. Check that source switches of Sender are located in the right positions for their video sources. For more information on how to use source switches, see "Top Panel" of Sender.
	 Check that when using DVI, VGA, YPbPr and CVBS input for Sender the audio devices connected to LINE IN and AUDIO OUT work properly, and that the rear panel source switch is located in the right positions for their video sources.
	Check that Sender is not set to mute using PC configurator. For more information, see the user guide of PC configurator.
	 Check that no compatibility issues exist between the A/V devices and Sender/Receiver. If so, replace the A/V devices with other models.
	I I. Check that switch is configured properly, and that IGMP snooping is enabled.



- All HDMI over CATx transmission distances are measured using Belden CAT6A (625MHz), 4-Pair,UTP-Unshielded, Riser-CMR, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented Double-H spline, Ripcord, PVC Jacket using Quantum 980 signal HDMI Video Generator Module with Video Pattern Testing and shielded ends.
- 2. The transmission length is largely affected by the type of category cables, also 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 connectors are better suit than unshielded UTP connectors. A solid UTP CAT6A cable shows longer transmission length than solid UTP CAT5E/6E cable.
- 3. EIA/TIA-568-B termination (T568B) for category cables is recommended.
- 4. To reduce the interference among the unshielded twisted pairs of wires in category cable, you can use shielded STP cables with shielded connector to improve EMI problems, which occurs in poor wiring environments with unplanned cable runs situated away from EMI interference.
- 5. 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 signal on the display, the actual transmission length is subject to high quality category cables. For resolution greater than 1080i or 1280x1024, a solid CAT6E 250MHz cable is the only viable choice.

Data Link TIA/EIA-568-B				
PIN	Color	Function		
1	● ₩-0	TX0-		
2	• •	TX0+		
3	🐑 W-G	TX1-		
4	🌖 BL	TX2-		
5	W-BL	TX2+		
6	🚛 G	TX1+		
7	w-вр	TXC-		
8	e BR	TXC+		



PERFORMANCE GUIDE FOR HDMI OVER CATEGORY CABLE TRANSMISSION

PERFORM	MANCE RATING	TYPE OF CATEGORY CABLE			
WIRING	SHIELDING	CAT5	CAT5E	CAT6	
	UNSHIELDED (UTP)	***	****	****	
SOLID	UNSHIELDED (STP)	***	****	****	
	UNSHIELDED (UTP)	*	**	**	
STRANDED	UNSHIELDED (STP)	*	*	**	
TER	MINATION	PLEASE USE EIA/TIA-568-B TERMINATION (T568B) AT ANY TIME			



NOTES









Control Your Video

TECHNICAL SUPPORT



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