

# TECHCONNECT TC2-MATRIX OWNERS MANUAL



www.visionaudiovisual.com/techconnect/tc2-matrix

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# DECLARATION OF CONFORMITY

Where applicable Vision products are certified and comply with all known local regulations to a 'CB Certification' standard. Vision commits to ensure all products are fully compliant with all applicable certification standards for sale in the EU and other participating countries.

The product described in this owner manual is in compliance with RoHS (EU directive 2002/95/EC), and WEEE (EU directive 2002/96/EC) standards. This product should be returned to the place of purchase at the end of its useful life for recycling.

## WARNINGS



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

All products are designed and imported into the EU by 'Vision' who is wholly owned by 'Azlan Logistics Ltd.', Registered in England Nr. 04625566 at Lion House, 4 Pioneer Business Park, Clifton Moor, York, YO30 4GH. WEEE Registration: GD0046SY



## DECLARATION OF ORIGIN

All Vision products are made in the People's Republic of China (PRC).

## USE ONLY DOMESTIC AC OUTLETS

Connecting the unit to an outlet supplying a higher voltage may create a fire hazard.

# HANDLE THE POWER CORD WITH CARE

Do not disconnect the plug from the AC outlet by pulling the cord; always pull the plug itself. Pulling the cord may damage it. If you do not intend to use your unit for any considerable length of time, unplug the unit. Do not place furniture or other heavy objects on the cord, and try to avoid dropping heavy objects on it. Do not tie a knot in the power cord. Not only could the cord be damaged, but a short circuit could also be caused with a consequent fire hazard.

## PLACE OF INSTALLATION

Avoid installing this product under the following conditions:

- · Moist or humid places
- Places exposed to direct sunlight or close to heating equipment
- Extremely cold locations
- · Places subject to excessive vibration or dust
- · Poorly ventilated places

Do not expose this product to dripping or splashing. DO NOT PLACE OBJECTS FILLED WITH LIQUIDS ON OR NEAR THIS PRODUCT!

### MOVING THE UNIT

Before moving the unit, be sure to pull out the power cord from the AC outlet and disconnect the interconnection cords with other units.

## WARNING SIGNS

If you detect an abnormal smell or smoke, turn this product off immediately and unplug the power cord. Contact your reseller or Vision.

#### PACKAGING

Save all packing material. It is essential for shipping in the event the unit ever needs repair.

IF ORIGINAL PACKAGING IS NOT USED TO RETURN THE UNIT TO THE SERVICE CENTRE, DAMAGE IN TRANSIT WILL NOT BE COVERED BY WARRANTY.

#### OVERVIEW

This product converts HDMI signal into native ethernet signal and allows the signal to be routed through a normal local area network.

# TRANSMITTER



- 1. 12V 2A Power input (note device can also receive power via Power Over Ethernet (POE)
- 2. CAT5e/6 Output
- 3. HDMI Input
- 4. RS-232 phoenix terminal block
- 5. Earth discharge screw (for excess static situations)

# RECEIVER



- 1. 12V 2A Power input (note device can also receive power via Power Over Ethernet (POE)
- 2. CAT5e/6 Input
- 3. RS-232 phoenix terminal block
- 4. HDMI Output
- 5. Earth discharge screw (for excess static situations)

# **DEVICE STATUS LIGHTS**



# INSTALLATION

- 1. CONNECT HARDWARE TO NETWORK Connect all transmitters and receivers to a network.
- 2. DOWNLOAD SETUP SOFTWARE Download configuration software from www.visionaudiovisual.com/techconnect/tc2-matrix
- 3. RUN SOFTWARE Un-compress and double-click **HDMIoverIP.exe** file. This application does not need to be installed.

NOTE: The OS must be Windows XP or newer. It does not work for Mac.

4. SEARCH FOR DEVICES Click **Search** in the **Devices** area.

NOTE: If amending programmed devices check **Restore** before searching so previous configuration can be automatically restored.

If you forget to do this delete the devices from the list and Search again with Restore checked.

HDMI over IP Console V2.3.0.5
🕼 Import 🛛 🔲 Export 🛛 🕫 IR 🖤 Serial
Devices
Product: TX/RX 💌
Search X Delete V Restore
Alias Type Host Name

The first time you press search the **Windows Security Alert** may be displayed. Select both check boxes in the dialog box and click **Allow access**.



## SUCCESS

When complete authenticated devices are displayed in the device list.



#### FAILURE

Devices are assigned IP addresses in Auto IP mode by default. Their IP address is **169.254.x.x** and subnet mask is **255.255.0.0**. If no devices are found ensure the computer is on the same network address and subnet mask.

To change the IP address:

a. Control Panel > Network and Internet > Network and Sharing Centre > Change Adaptor Settings.

You can also right click on the internet icon in the bottom-right task bar to go to the Network and Sharing Centre.

Control Panel 🕨	Network and Internet   Network and Sharing Center	✓ 49 Search Control Panel
Control Panel Home Manage wireless networks	View your basic network information and s	set up connections See full map
Change adapter settings Change advanced sharing settings	View your active networks	Internet Connect or disconnect
	wifi Home network	Access type: Internet Connections: all Wireless Network Connection ( wifi)
	Change your networking settings	
	Set up a new connection or network Set up a wireless, broadband, dial-up, ad hoc,	or VPN connection; or set up a router or access point.
	Connect to a network Connect or reconnect to a wireless, wired, dia	I-up, or VPN network connection.
	Choose homegroup and sharing options Access files and printers located on other network	work computers, or change sharing settings.
See also	Troubleshoot problems Diagnose and repair network problems, or get	t troubleshooting information.
HomeGroup		
Internet Options		
Windows Firewall		

- b. In the new window right click on active connection and select Properties.
- c. Click on Internet Protocol Version (TCP/IPv4) and select Properties.

Wireless Network Connection Properties
Networking Sharing
Connect using:
Intel(R) Centrino(R) Advanced-N 6200 AGN
Configure This connection uses the following items:
Install Uninstall Properties
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK Cancel

d. Enter correct IP and subnet details as below and select OK.

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					
Ouse the following IP address:						
IP address:	169.254.0.1					
Subnet mask:	255.255.0.0					
Default gateway:						
Obtain DNS server address auton	natically					
<ul> <li>Ouse the following DNS server add</li> </ul>	resses:					
Preferred DNS server:						
Alternate DNS server:	• • •					
Validate settings upon exit	Advanced					
	OK Cancel					

5. DEVICE PARAMETERS Right click a device in the device list to modify the settings for that device.

	Modifies Alias and IP address settings
/	
HDMI over IP Console V2.3.0.5	Re-Reads device settings in case they have changed. Can be applied to multiple devices at once.
Alias Type Host Name RX-2 RX RX-82E18B1237D4 TX-2 TX TX-023B8434125E Update Delete Turn On OSD Turn Off OSD Rant	Deletes devices from the device list. [Select Search to add them to the list again] Can be applied to multiple devices at once.
Reset ENID	
Restate	On Screen Display ON or OFF. By default the devices will display "123456" when powered on. Can be applied to multiple devices at once.
$\langle \langle \rangle \rangle$	
	Restores factory settings. You must restart the devices for this to take effect. Can be applied to multiple devices at once.
$\langle \cdot \rangle$	
	Resets Transmitter EDID settings
λ.	
	Restarts devices. Can be applied to multiple devices at once.
•	

6. DEVICE SETTINGS Selecting Config in the previous will open this dialogue box:



NOTE 1: OK applies settings and closes dialogue box.

NOTE 2: If you change IP address settings you need to restart device after applying changes and search for device again.

7. SCENE OVERVIEW The Scene window is where you setup the matrix. Each box ("cell") represents a receiver.

0303 TX: RX:	TX: TX-2 RX: RX-2	Create Modify K Remove I a App looked sutomatically Status: Updated
TX:	↓ TX: TX-2	TX:
RX:	↓ RX: RX-2	RX:
TX:	TX:	TX:
RX:	RX:	RX:
TX:	TX:	TX:
RX:	RX:	RX:
	RX: TX: RX:	RX: RX:



Status Indicator:

- a. Scene is restored from devices
- b. Scene settings are in progress
- c. Scene settings are applies successfully
- d. Scene settings failed to be applied
- 8. CREATING OR MODIFYING SCENE This dialog box lets you set a name (max. 80 characters) and change the cells for a scene:

🤌 Mod	ify Scene			Į	?	x
Name:	0303					
Size:	3	•	X 3			•
			ОК		Cancel	

9. SCENE CELLS Each cell corresponds to a receiver e.g. ten receivers you need ten cells. To allocate devices to each cell right-click:

TX: TX-2	TX:
0100.1002	Change TX  Change RX
тх·	Remove TX  Remove RX
RX:	Select All
	Combine Split
TX:	Video Wall Properties
RX:	Turn OSD On Turn OSD Off
	Remote Control Serial

Or, drag from the device list:

Deport Export 🔹 IR 💎 Serial 📑 Infor	nation 🛐 Log 🥹 Help			
Product: TX/RX	• 0303	C Apply		
Alias         Type         Host Name           ●         RX-2         RX         RX-82E188123704           ●         TX-2         TX         TX-02388434125E	TX: RX:	TX: TX-2 RX: RX-2	TX: RX:	Î
Drag and drop levices onto the	TX: RX:	TX: RX:	TX: RX:	
	TX: RX:	TX: RX:	TX: RX:	
	< []	1	μ	

10. USING FOR VIDEO WALLS In the above menu select **Select All** then **Combine** to use for videos walls. This dialogue box will open.



- a. Name the video wall
- b. Adjust the bezel and gap compensation
- c. Select OK

These settings and advanced settings can be accessed later by selecting **Video Wall Properties**.



Split cancels the video wall.

11. CONFIGURATION FILES When you quit the software it saves an updated configuration file **default.hoi** to the computer.

Click **Export** in the software to save the configuration file for use on a different computer. **Import** allows you to use this configuration file on a different computer.



12. INFORMATION AND LOG WINDOWS The Information and Log windows show additional information for trouble-shooting.

PHDMI ov	ver IP Console V2.3.0.5	
Import	: 🔲 Export 🔋 IR 👘 Seri	al 📑 Information 📔 Log 📀 Help
Devices		Scene
Shows de informatio	vice name and IP on	
	Shows sent and received messages log	

13. SERIAL You can send an adhoc RS-232 control command to a connected source or display device. For example you can use it to turn an inaccessible flat-panel off.

Import Export   Import Export   Import Import   Devices Scene     Send message to serial     Devices     Serial Settings   Baud Rate:   IS200     Parity:     Message     Message     Add Carriage-Return Line-Feed	9 HDMI over IP Console V2.3.0.5				
Devices     Scene       Perices     Serial Settings       Filter by Scene: 0303     Image: 0303       Via TX/RX     Image: 0303       TX-2     Image: 0303       Message     Image: 0303       Message     Image: 0303       Image: 0303     Image:	🎑 Import 🛛 🗍 Export 📓 IR	ኞ Serial	🝶 Information	🖺 Log	Help
Send message to serial   Pevices   Filter by Scene: 0303   Via TX/RX   R-2   TX-2   Stop Bits: 1 Parity: None • Message   Message	Devices		]	Scene	
Devices       Serial Settings         Filter by Scene: (3303 ♥ ) All       Baud Rate: (115200 ♥)         Via TX/RX       Data Bits: (8 ♥ ♥)         TX-2       Parity: None ♥         Message       Message         Image: Ima	Send message to serial				? <mark>×</mark>
Filter by Scene:       0303       Via TX/RX         Via TX/RX       Data Bits:       8         RX-2       TX-2       Data Bits:       1         Parity:       None       Via TX/RX         Message       Image: Comparison of the second of the	Devices		Serial Settings		
Via TX/RX     Data Bits:     8       RX-2     Stop Bits:     1       TX-2     Parity:     None   Message	Filter by Scene: 0303	- 🔽 All	Baud Rate:	115200	•
RX-2       Stop Bits:       1       •         TX-2       Parity:       None       •         Message	Via TX/RX		Data Bits:	8	-
Parity: None   Message  Add Carriage-Return Line-Feed Send	RX-2		Stop Bits:	1	•
Message	14-2		Parity:	None	-
Add Carriage-Return Line-Feed Send			Message		
Add Carrisoe-Return Line-Feed Send					
Add Carrisoe-Return Line-Feed Send					
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Add Carriage-Return Line-Feed Send					
Add Carriage-Return Line-Feed Send					
Add Carriage-Return Line-Feed Send					
			Add Carriage-Return L	ine-Feed Se	end

NOTE: IR is not supported by the Techconnect Matrix.

# SPECIFICATIONS

PRODUCT DIMENSIONS: 141 x 115 x 26 mm (length x width x height) PRODUCT WEIGHT: 440g CONSTRUCTION MATERIAL: Metal COLOUR: White TECHNICAL DETAILS: Input Video Signal: 0.5-1.0 volts p-p Input DDC Signal: 5 volts p-p (TTL) Maximum Video Format Supported: 1920×1200 / 1080P Output Video: HDMI 1.3 with HDCP Output Audio: Stereo only Operating Temperature Range: -5 to +35°C Operating Humidity Range: 5 to 90 % RH (no condensation) Power Consumption: 5 watts Maximum distance (if connected peer-to-peer directly): 100m CONNECTIVITY: 1 x HDMI (type A) 1 x RS-232 (3-port phoenix) 1 x Ethernet (RJ45) 1 x DC Power (2-port phoenix) 1 x Ground (for cases of excess static discharge) 2 x POWER SUPPLY: 100-240v 50/60Hz AC 12 volt / 2 amp Transformer integrated into plug. Includes interchangeable plugs: UK/EU/US/AU. DC tail length: 1.8m. Transformer dimensions: 81 x 52 x 38mm COMPLIANCES: RoHS, WEEE, CE/EMC

## ACCESSORIES INCLUDED:

Mounting ears

# WARRANTY

This product comes with a 2-year return to base warranty, effective from the date of purchase. This warranty applies only to the original purchaser and is not transferable. For the avoidance of doubt, this will be taken from the information held by the appointed national distributor at the point of sale. If the product is DOA (dead on arrival), you have 21 days from purchase date to notify the national distributor via your AV reseller. The liability of the manufacturer and its appointed service company is limited to the cost of repair and/or replacement of the faulty unit under warranty, except for death or injury (EU85/374/EEC). This warranty protects you against the following:

• Failure of any components, including the power supply.

• Damage when the product is first removed from its packaging if reported within 24 hours of purchase.

If you find you do have a problem with this product, you should contact the AV reseller you purchased this product from. The original purchaser is responsible for shipment of the product to the manufacturer's appointed service centre for repair.

We will endeavour to return repaired units within 5 working days, however this may not always be possible, in which case it will be returned as soon as practicably possible. In line with our WEEE commitments, the manufacturer endeavours to replace the faulty parts of the product rather than replacing the whole unit. This warranty does not protect this product against faults caused by abuse, misuse, incorrect installation, unstable or faulty power input, which might be caused by ignoring the guidelines set out in this manual.

LEGAL DISCLAIMER: Because we are committed to improving our products, the details above may change without prior warning. This User Manual is published without warranty and any improvements or changes to the User Manual necessitated by typographical errors, inaccuracies of current information, or improvements to programs and/or equipment, may be made at any time and without notice. Such changes will be incorporated into new editions of the User Manual.