CYP

CDPS-UC4H4HFS
4 by 4 HDMI 4Kx2K Matrix with Control System

μCS

Operation Manual

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE (DD/MM/YY)	SUMMARY OF CHANGE
VR0	24/09/15	Preliminary release
VR1	17/02/16	releaseRS-232 Command case-insensitive

CONTENTS

1. INTRODUCTION

This 4K2K 4 by 4 Matrix with fast switch and control system allows 4 HDMI signal sources being displayed in 4 connected HDMI displays in the way you like, fast switching technology can greatly eliminate the time required by swapping or turning ON/OFF the connected displays. Control system features support traditional direct control systems like IR, Relay and DC trigger and indirect control systems like IR Learning, RS-232, Telnet/WebGUI controls. Allowing user with PC or APP controls great flexibilities over controlling devices. The operation of the system can be easily managed through software application on PC/Laptop or APP on mobile devices and moreover, through on-panel buttons, IR remote, RS-232, Telnet and Ethernet protocols.

2. APPLICATIONS

• Entertainment Room / Home Theater Display and System Controls

• Show Room / Demo Room Display and System Controls

• Lecture Room/Hall Presentation Display and System Control

• Public Commercial Display and System Control

• Information Board Display and System Control

3. PACKAGE CONTENTS

• 1×4 by 4 HDMI 4K UHD Matrix with Fast Switch

• 1×Remote Control with Battery

• 1×Left & Right Rack Ears

• 1×IR Extender Cable

• 1×5 V/3.6 A Power Adaptor

• 1× Power Cord

• 4×Terminal Blocks

• 1×IR Learner Cable

• 4×3.5 mm to 3.5mm IR Cable

• 1×IR Blaster

• 1×Operation Manual

4. SYSTEM REQUIREMENTS

- Input source equipment such as Blu-ray/DVD/PS3 player or Set-Top-Box and output HDMI TV/Display and or audio amplifier with connection cables.
- Control system input devices such as security door/windows, lights, curtain, or devices like players, sound systems, or any other controllable device with IR/RS-232 or net service link design with PC/smart phone to send commands to control the whole system.

5. FEATURES

- HDMI with 3D & 4Kx2K supported, HDCP and DVI compliant
- Support 4 HDMI inputs and 4 HDMI outputs
- Supports HDTV resolutions up to 4Kx2K (3840x2160@24/25/30, 3840x2160@50/60_YUV420 & 4096x2160 @24, 4096x2160 @50/60_YUV420)
- Supports individual EDID or common EDID
- Supports pass through of audio formats: LPCM 2/5.1/7.1CH, Dolby Digital 2~5.1CH, DTS 2~5.1CH, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos and DTS-HD Master Audio
- HDCP 1.4 for 4 HDMI inputs and 4 HDMI outputs.
- Input port HDCP support Standard and Apple mode. The Apple mode selection to guarantees the use of Apple devices
- Compliant with DVI source (Not support Deep color and Color space YCbCr 422/444)
- Supports IR Learning function: Allows IR signals to be stored in the system and used for control
- Supports eight Terminal Block inputs with voltage of 5~15V
- Supports 1 IR Learning port, 8 IR outputs, 8 control inputs, 8 Relay outputs, 2 COM ports, and 4 Ethernet ports
- Supports Baud rates up to 115,200bps
- Supports 10/100Mbps Ethernet network connection

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel
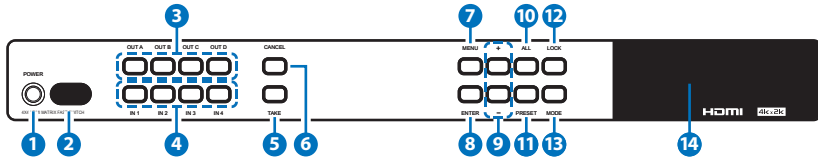
1 **POWER:** Press this button to turn ON the device and the LED will illuminated.

2 **IR WINDOW:** This IR Receiver receives the remote control signal from the package include remote control only.

3 **OUT A~D:** Press OUT button along with an IN buttons to select an input source for an output display. i.e. OUT A→ IN1→TAKE or OUT A→OUT B→IN4→TAKE.

4 **IN 1~4:** Press IN button to select input from 4 sources.

5 **TAKE:** Press this button to confirm the selection of an IN and an OUT button. If this button is not pressed the selection will not execute.

6 **CANCEL:** Press this button to cancel the selection.

7 **MENU:** Press to enter into the menu.

8 **ENTER:** Press to confirm selection.

9 **+/- :** Press to select page up and down under menu select.

10 **ALL:** Press to select an input into all output.

11 **PRESET:** Press this button, the OLED will show preset selection then select from IN 1~4 and press "TAKE" to confirm the selection or press "CANCEL" to cancel the selection.

12 **LOCK:** Press to lock on all button functions on the front panel. Press for 3 seconds to relieve the lock function.

13 **MODE:** Press this button to switch in between the TAKE mode/Real Time mode. OLED will show current selection on the top right side, press TAKE to confirm the switch.

**14** **OLED:** Display input and output selection and menu selection.

6.2 Rear Panel
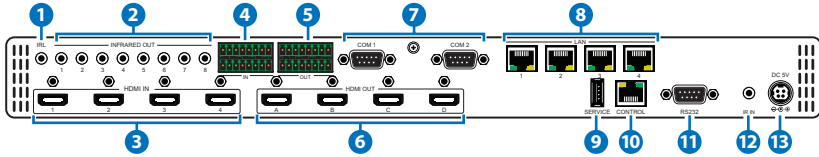
1 IRL: Connect with IR Receiver included in the package for IR signal learning. Send the IR signal that is to be learned by press on the remote control in direct line-of-sight towards the Receiver and use WebGUI to store and transmit the IR code. Details please refers to section 6.10.4

Note: Although both IR Extender and IR Learner may look the same they are however different. IR Extender is designed with more reddish color whereas IR Learner has a brownish color and a red dot on the back to be distinguished in between. Please pay extra attention in connecting and using them.

2 INFRARED OUT 1~8: Connect with IR Blaster for IR signal transmitting.

3 HDMI IN 1~4: Connect from source equipment such as Blu-ray/ DVD/PS3 players, Set-Top-Box or any HDMI equipped source device for input signal sending.

4 TRIGGER IN 1~8: Connect with event device's signal lines such as window security alarm, door switch, and etc... that obtain voltage from 0~15v For signal trigger sending back to Control System which works align with Macro setting 1~8 from WebGUI. The upper row should connect with positive voltage and the lower row are negative pin, if the lines are miss connected, no signal/action will be active. For detail connection please referes to below diagram.
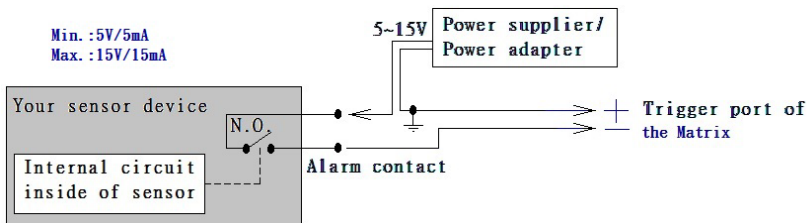

5 RELAY OUT 1~8: Connect with control device's power ± line cable such as DC Power supply to activate the control devices.

6 HDMI OUT A~D: Connect to HDMI TV/display or HD Amplifier for output image and or audio display.

7 COM 1~2: Connect with devices that obtain RS-232 input for control purpose. Using TELNET client to send command directly to control the device, set the connected port to 7501 with COM 1 and 7502 with COM2.

8 LAN1~4: Connect with devices that obtain RJ-45 input for control and data transmitting purpose within the connected LAN system.

9 SERVICE: This slot is reserved for firmware update use only.

10 CONTROL: Connect from PC/Laptop with active internet service or Ethernet switch/Hub for WebGUI control and or data transmitting.

11 RS-232: Connect from PC/Laptop for RS-232 command sending to control the device.

12 IR IN: Connect the IR Receiver included in the package for IR signal receive from the included remote control. Ensure that remote being used is within the direct line-of-sight of the IR Extender.

13 DC 5V: Connect the adaptor with power cord included in the package and connect to AC wall outlet for power supply.

6.3 Remote Control

1 POWER: Press this button to switch the system ON/OFF.

2 OUT A~D: Press these buttons once a time along with an IN buttons to select an input source for an output display.

3 IN 1~4: Press the IN buttons to select an input from the 4 input sources.

4 ALL: Press this button to select all outputs to display with an input source.

5 TAKE: Press this button to confirm the selection of an IN and an OUT button. If this button is not pressed the selection will not execute.

6 CANCEL: Press this button to cancel the selection.

CR-138
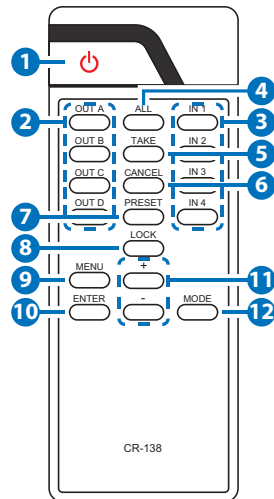
7 **PRESET:** Press this button, the OLED will show preset selections then select from IN 1~4 and press "TAKE" to confirm the selection or press "CANCEL" to cancel the selection.

8 **LOCK:** Press to lock on all button functions on the front panel. Press again to relieve the lock function.

9 **MENU:** Press to enter into the menu.

10 **ENTER:** Press to enter into the menu selections.

11 **+/-:** Press to select page up and down under menu select.

12 **MODE:** Press to switch between TAKE mode/Real Time mode.

6.4 OLED Menu

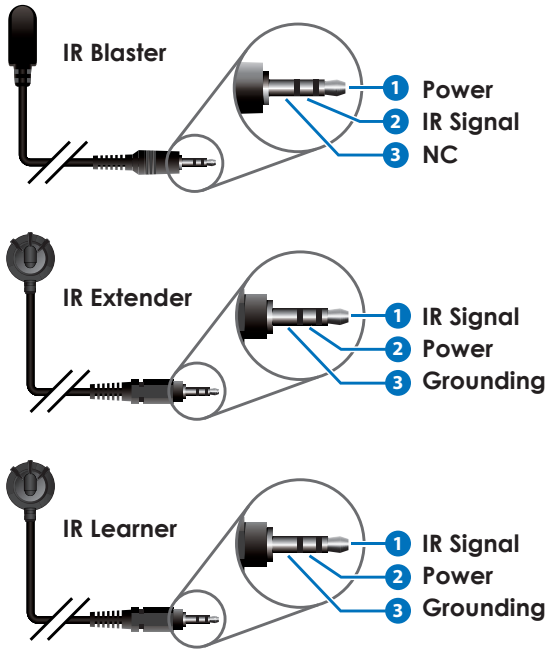| MAIN MENU	SUB MENU	DESCRIPTION	DEFAULT
EDID Mode	All	*All Input port is using same EDID.* *In menu "EDID All", can select suitable EDID.*	All
	Appoint	*Each Input port can select individual EDID.* *In menu "EDID IN1~4" select suitable EDID.*	
	Exit		

MAIN MENU	SUB MENU	DESCRIPTION	DEFAULT
EDID All	Sink A	*Copy Output A display EDID*	8/2D/ PCM/1080P
	Sink B	*Copy Output B display EDID*	
	Sink C	*Copy Output C display EDID*	
	Sink D	*Copy Output D display EDID*	
	8/2D/PCM/720P	*Standard EDID.* *Content: deep color/2D3D/audio/ native resolution.*	
	8/2D/PCM/ AC3/720P	*Standard EDID.* *Content: deep color/2D3D/audio/ native resolution.*	
	8/2D/PCM/1080P	*Standard EDID.* *Content: deep color/2D3D/audio/ native resolution.*	
EDID All (Cont.)	8/2D/PCM/ AC3/1080P	*Standard EDID.* *Content: deep color/2D3D/audio/ native resolution.*	8/2D/ PCM/1080P
	8/2D/PCM/4K2K	*Standard EDID.* *Content: deep color/2D3D/audio/ native resolution.*	
	8/2D/PCM/ AC3/4K2K	*Standard EDID.* *Content: deep color/2D3D/audio/ native resolution.*	
	Exit		
EDID IN1	Same as EDID All.	*Select Input 1 EDID.*	8/2D/ PCM/1080P
EDID IN2		*Select Input 2 EDID.*	
EDID IN3		*Select Input 3 EDID.*	
EDID IN4		*Select Input 4 EDID.*	

MAIN MENU	SUB MENU	DESCRIPTION	DEFAULT
Matrix Preset	Preset 1	*IN/OUT default No.1.*	A=1, B=2, C=3, D=4
	Preset 2	*IN/OUT default No.2.*	
	Preset 3	*IN/OUT default No.3.*	
	Preset 4	*IN/OUT default No.4.*	
	Exit		
HDCP Input	IN1 Standard/ Apple	*Set IN1 in Standard/ Apple mode.*	Standard
	IN2 Standard/ Apple	*Set IN2 in Standard/ Apple mode.*	
	IN3 Standard/ Apple	*Set IN3 in Standard/ Apple mode.*	
	IN4 Standard/ Apple	*Set IN4 in Standard/ Apple mode.*	
	Exit		
Network Setup	IP Mode	*DHCP, Static*	Static
	IP	*Setup Static IP.*	192.168.1.50
	Mask	*Setup Static Mask.*	255.255.255.0
	Gate	*Setup Static Gateway*	192.168.1.254
	Do Re-Link	*Re-Link After Setup Network, the System need to re-link.*	
	Exit		
Network Status	Link	*Network Status DHCP, Static or Not Linked.*	
	IP	*Get IP*	
	Mask	*Get Netmask*	
	Gate	*Get Gateway*	
	MAC	*System MAC*	
	Exit		

MAIN MENU	SUB MENU	DESCRIPTION	DEFAULT
Source Detection	IN1 On/Off IN2 On/Off	*Detect IN1, IN2 source with/without signal & HDCP.*	
	IN3 On/Off IN4 On/Off	*Detect IN3, IN4 source with/without signal & HDCP.*	
	Exit		
Sink A Info	HPD On/Off RSEN On/Off	*Detect Sink A display with/without Hot-Plugging& R-sense.*	
	Exit		
Sink B Info	Same as Sink A Info	*Detect Sink B display with/without Hot-Plugging& R-sense.*	
Sink C Info		*Detect Sink C display with/without Hot-Plugging& R-sense.*	
Sink D Info		*Detect Sink D display with/without Hot-Plugging& R-sense.*	
Firmware	FW Version	*Display Model number & FW Version.*	
	Update	*FW Update.*	
	Exit		
Factory Reset	Do Reset	*Do System Reset.*	
	Exit		
Exit			

6.5 IR Cable Pin Assignment

IR Blaster
1. Power
2. IR Signal
3. NC

IR Extender
1. IR Signal
2. Power
3. Grounding

IR Learner
1. IR Signal
2. Power
3. Grounding

Note: Due to both IR Extender and IR Learner cables are with similar outlook,a part no. "CBL-IR10C3SA200A sticker has been placed to differentiate the difference on IR Learner.

6.6 RS-232 Protocol

MATRIX	
Pin	**Assignment**
1	NC
2	TXD
3	RXD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

CONTROL DEVICE	
Pin	**Assignment**
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

▶
◀

Baud Rate: 115200bps
Data bit: 8 bits
Parity: None
Flow Control: None
Stop Bit: 1

6.7 RS-232 and Telnet Commands

COMMAND	DESCRIPTION	PARAMETER
P0	*Power Off (Standby)*	NONE
P1	*Power On*	NONE
IPCONFIG	*Display The Current IP Confgure*	NONE
SIPADDR X.X.X.X	*Set Ethernet IP Address*	X=0~255
SNETMASK X.X.X.X	*Set Ethernet Net Mask*	X=0~255
SGATEWAY X.X.X.X	*Set Ethernet Gateway*	X=0~255
HTTPPORT N1	*Set Http Port Number*	N1=10~65535
TELNETPORT N1	*Set Telnet Port Number*	N1=10~65535

COMMAND	DESCRIPTION	PARAMETER
RSTIP	*IP Configuration Set To <DHCP>*	NONE
A N1	*Select input N to output A*	N1=1~4
B N1	*Select input N to output B*	N1=1~4
C N1	*Select input N to output C*	N1=1~4
D N1	*Select input N to output D*	N1=1~4
I N1	*Select input N to all output*	N1=1~4
EDIDMODE	*Show EDID Mode*	NONE
EDIDMODE N1	*Set EDID Mode*	N1=0(Appoint), 1(All)
EDIDALL	*Show EDID Mode Source for All*	NONE
EDIDALL N1	*Set EDID Mode Source for All*	N1=0~9*(ref. OLED EDID ALL)
EDIDIN	*Show Input EDID Source*	NONE
EDIDIN N1	*Show Input N1 EDID Source*	N1=1~4
EDIDIN N1 N2	*Set Input N1 EDID Source*	N1=1~4 N2=0~9*(ref. OLED EDID ALL)
HDCPIN	*Show All Input HDCP Status*	NONE
HDCPIN N1	*Show Input N1 HDCP Status*	N1=1~4
HDCPIN N1 N2	*Set Input N1 HDCP ON/OFF*	N1=1~4 N2=0(OFF), 1(ON)
PRESET	*Show All Preset Configure*	NONE
PRESET N1	*Set Preset N1 Source to Outputs*	N1=1~4
PRESET N1 N2	*Set Preset N1 Configure*	N1=1~4 N2=AXBXCXDX (X=1~4)
SOURCEDET	*Show All Input Signal*	NONE
SOURCEDET N1	*Show Input N1 Signal*	N1=1~4
SINKINFO	*Show All Output Information*	NONE
SINKINFO N1	*Show Output N1 Information*	N1=A~D

COMMAND	DESCRIPTION	PARAMETER
INNAME	*Show all Input name*	NONE
INNAME N1	*Show Input N1 name*	N1=1~4
INNAME N1 N2	*Set Input N1 Name*	N1=1~4 N2=ABCDEFGH…(Max Length=8)
OUTNAME	*Show all Output name*	NONE
OUTNAME N1	*Show Output N1 name*	N1=A~D
OUTNAME N1 N2	*Set Output N1 name*	N1=A~D N2=ABCDEFGH…(Max Length=8)
MATRIXMODE	*Show Matrix Current mode*	NONE
MATRIXMODE N1	*Set Matrix mode N1*	N1=0(Real-time), 1(Take)
VER	*Show Device Firmware version*	NONE
REBOOT	*System Reboot*	NONE
HELP(?)	*Show Command list*	NONE
HELP(?) N	*Show Command description*	N=Command name
FADEFAULT	*All Confgure Set to Factory Default*	
ETH_FADEFAULT	*All Ethernet Confgure Set to Factory Default*	
CYP	*Set Ethernet MAC address 48-Bit*	nn-nn-nn-nn-nn-nn nn=MAC Address
IRLEARN 0	*Learn IR Remote Control Signal*	
IREMIT IR N 0 M	*Emit IR Code to Specified IR Output Port*	N=1~8 M=IR code string
COMCONF N1~N6	*Command Confguration*	N1=COM, N2=1~2, N3=Baud Rate (4800~115200), N4=Data bit (7~8), N5=Parity (Non/Odd/Even), N6=Stop bit (1/2)
COMSEND	*Send Desired data to Specifed COM port*	

COMMAND	DESCRIPTION	PARAMETER
COMSEND N1~N3	*Send Desired data to Specifed COM port*	N1=COM, N2=Port 1/2, N3=Data String *Note: Some command may require to add a carriage return (eg:\r or \x0D) in the end to allow the system to recognize it as an end of the command.*
RELAY N1 N2	*Set Relay Trigger Status to Specifed Relay Port*	N1= 1~8, N2=Open/Close/ Toggle
TRIGGER N1 N2 N3	*Set Trigger-in input setting*	N1=Status/Info/Active**/ Mode***, N2=Port 1~8, N3=Enable**/ Disable**/Raising***/ Falling***/Change***
MACRO RUN N1	*Control System Macro Manipulation Command*	N1=Macro ID 1~8
CMDTBL show	*Show All Command list*	Up to 128
CMDTBL show n	*Show Command list*	n=1~128
CMDTBL add n m	*Add Command*	n=1~128, m=Command string
CMDTBL del n	*Delete Command*	n=1~128
CMDTBL name n	*Name Command*	n=1~128 m= Command strings up to 24 characters including space

Note: *Any commands will not be executed unless followed by a carriage return. Commands are case-insensitive.*

*EDID contents:

0=Output A

1=Output B

2=Output C

3=Output D

4=8bit/2D/PCM/720p

5=8bit/2D/PCM/AC3/720p

6=8bit/2D/PCM/1080p

7=8bit/2D/PCM/AC3/1080p

8=8bit/2D/PCM/4K2K

9=8bit/2D/PCM/AC3/4K2K

**Active Selections

***Mode Selections

6.8 Software Application

Please download the software from www.cypress.com.tw with file name CDPS V2.000 and save it in a directory where you may use it later.

Connect the Control System with PC/Laptop through the Ethernet port through an active network system and open the CDPS V2.000 application. Click on Find Devices on Network and a list of the devices connected to the Control System will show up.

	Product Name	Description	IP Address	MAC Address
		Find Devices on Network		
1	CDPS-UC4H4HFS	4x4 matrix with 4xHDMI	192.168.1.50	F8:22:85:01:02:06

Then user may use the IP Address to find the control device through Telnet, WebGUI or even RS-232/Hyper Terminal tools.

Product ID	9FFF
Product Name	CDPS-UC4H4HFS
MAC Address	F8:22:85:01:02:06
IP Address	192.168.1.50
Subnet Mask	255.255.255.0
Gateway IP	192.168.1.254
DNS	0.0.0.0
IP Mode	Static
Web GUI Port	80
Telnet Port	23
S / N	SN:123-456
Firmware Version	0.1.21
Hardware Version	1.0
Description	4x4 matrix with 4xHDMI
Web GUI	Web GUI
Save	Reboot

6.9 Telnet Control

To access the telnet control under MS windows, click 'Start' menu and type "cmd" in the search field then press enter.

Under Mac OS X, go to Go→Application→Utilities→Terminal.

See below for reference.
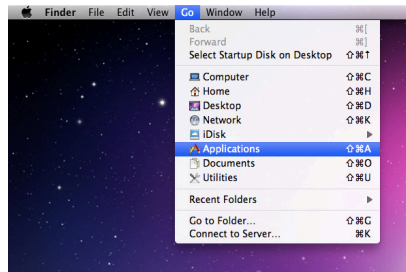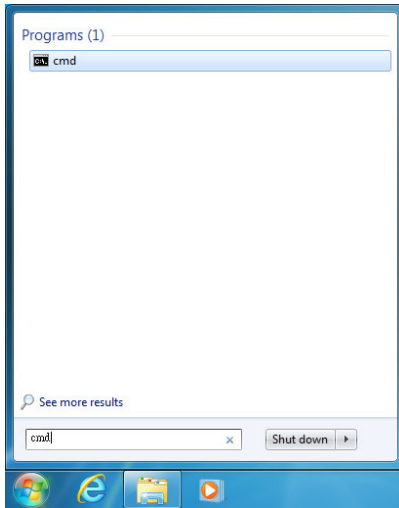
Once in the command line interface (CLI) type "telnet", then the IP address, and hit enter.

This will bring us into the unit which we wish to control. Type "help" to list the available commands.

```
Welcome to TELNET.
>?

P0              : POWER OFF
P1              : POWER ON
IPCONFIG        : DISPLAY THE CURRENT IPCONFIG
SIPADDR         : SET ETHERNET IP ADDRESS
SNETMASK        : SET ETHERNET NETMASK
SGATEWAY        : SET ETHERNET GATEWAY
HTTPPORT        : SET HTTP PORT NUMBER
TELNETPORT      : SET TELNET PORT NUMBER
RSTIP           : IP CONFIGURATION RESET TO <DHCP>
A               : SET OUTPUT A SOURCE
B               : SET OUTPUT B SOURCE
C               : SET OUTPUT C SOURCE
D               : SET OUTPUT D SOURCE
I               : SET ALL OUTPUTS SOURCE
EDIDMODE        : EDID MODE
EDIDALL         : EDID MODE SOURCE FOR ALL
EDIDIN          : INPUT EDID SOURCE
HDCPIN          : INPUT HDCP STATUS
PRESET          : MATRIX PRESET CONFIGURATION
SOURCEDET       : SOURCE SIGNAL DETECT <ON/OFF>
SINKINFO        : SINK INFORMATION
INNAME          : INPUT NAME
OUTNAME         : OUTPUT NAME
MATRIXMODE      : MATRIX SWITCH MODE SETTING
REBOOT          : SYSTEM REBOOT
?               : SHOW DESCRIPT OF COMMAND
HELP            : SHOW DESCRIPT OF COMMAND
FADEFAULT       : ALL CONFIGURE SET TO FACTORY DEFAULT
ETH_FADEFAULT   : ALL ETHERNET CONFIGURE SET TO FACTORY DEFAULT
VER             : Print version number of all devices.
COMSEND         : Send desired data to specified COM port.
IREMIT          : Emit IR code to specified IR output port.
RELAY           : Set relay state to specified relay port.
TRIGGER         : Trigger-in behavior mode and status report.
IRLEARN         : IR remote controller signal learning.
COMCONF         : COM port configuration.
MACRO           : Control system macro manipulation
CMDTBL          : Control system command list table manipulation.
```

Note: Commands will not be executed unless followed by a carriage return. Commands are case-insensitive. If the IP is changed then the IP Address required for Telnet access will also change accordingly.

6.10 WebGUI Control

On a PC/Laptop that is connected to an active network system, open a web browser and type device's IP address (available from OLED monitor) on the web address entry bar.

A security page will appear to ask for User and Password, please key in "admin" for both and click Submit to enter.

Note: *The Default IP setting is on Static with address at 192.168.1.50*

Th Browser will display the device's Routing, EDID, Macro, Command, Network Network, Trigger, UART, Network and System Settings Configuration pages for users to control.

6.10.1 Routing Settings

Click on 'Routing Settings' to select an input for output and the selection will turn orange, naming inputs & outputs, preset and restore video preset.
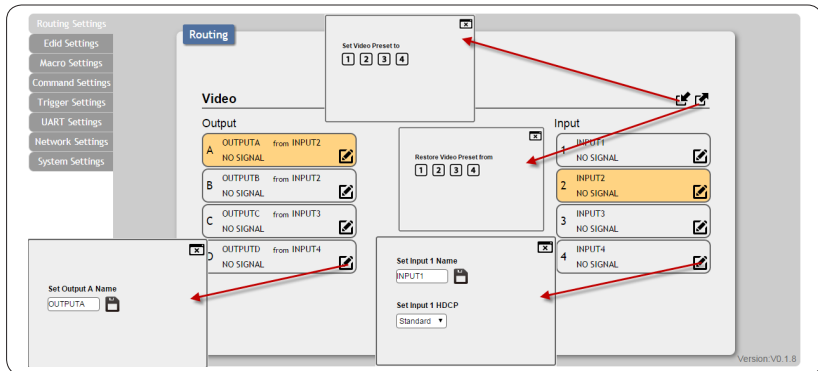
6.10.2 EDID Settings

Click on 'EDID Settings' to select EDID Mode and Set EDID Input content for each HDMI input.
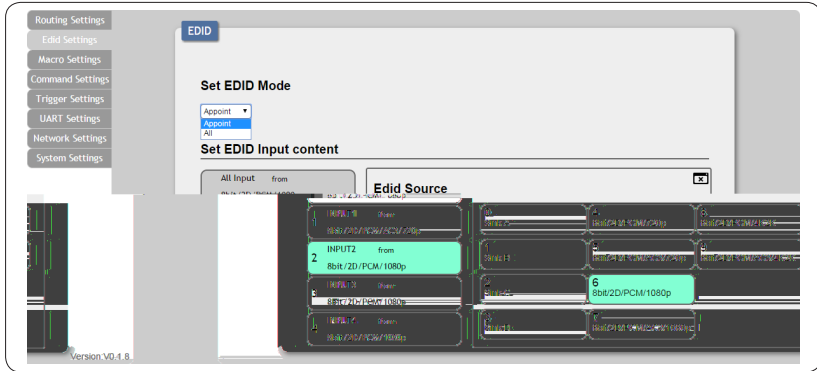
6.10.3 Macro Settings

Macro 1~8 works align with Trigger IN 1~8 which means, when a trigger signal is activated the control system will execute the command under Macro Setting.

Click on 'Macro Settings' to execute Macro action. Click on the ✏ mark to edit the command settings up to 8 Macro sets and to set its parameter and delay time of command up to 16 per each Macro.
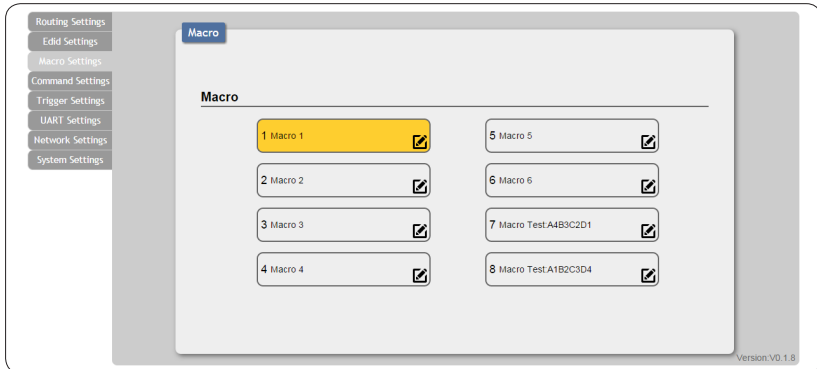
Click on Add button to insert commands. Command can be set to control the Control System/SysCMD, other devices connected within the same Telnet system/Internet area, RS-232 COM ports, IR and Relay devices connected through the Relay outputs of Control System with delay time. It is suggested the delay time is >100ms once the setting is confirmed, double click on Save Change.
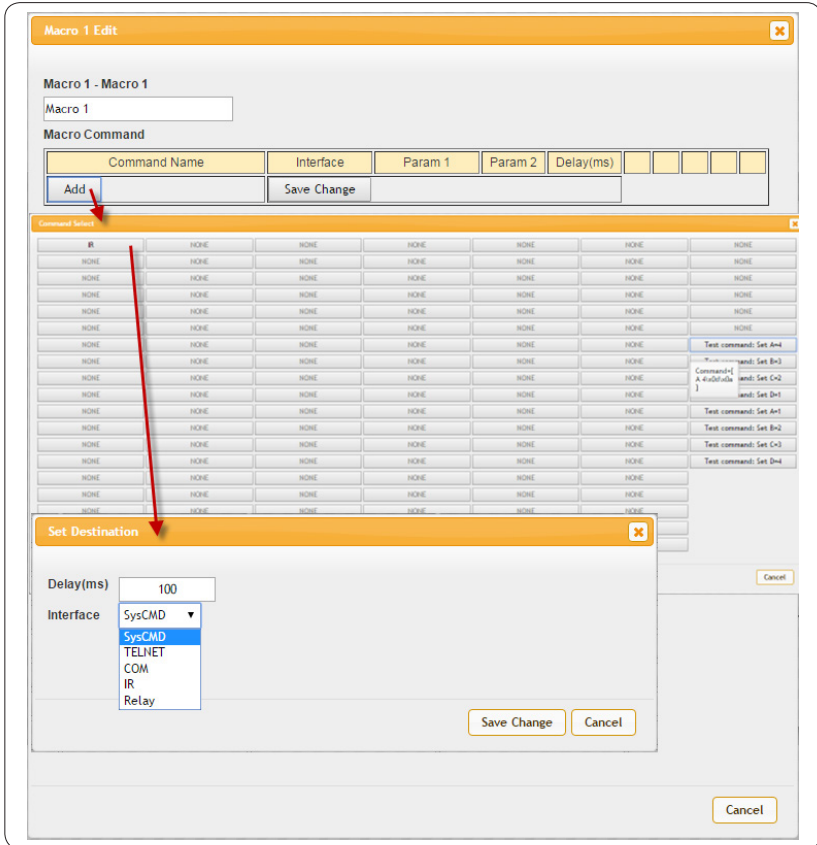
Command set to control the devices within the same telnet system or internet area require to set its IP and Port number and it is strongly recommend to set the delay time >500ms in order to secure a successful command sending. Command set to control the Relay devices require to set the Port number. Click on Save Change to confirm the setting.

Command under 128 characters including space can be build up to 128 commands, command over 128 characters and under 512 characters including space can be build up to 32 command in addition with 96 commands of 128 characters under. Click on Save Change to save the command inserted.

6.10.4 Command Settings

Click on 'Command Settings' to edit or delete commands up to 128 sets. Insert the command directly in the bottom column of Command Edit and name the command on the top column then click on Save Changes to store the command.

Note: Some command may require to add a carriage return (eg:\r or \x0D) in the end to allow the system to recognize it as an end of the command.

For IR command Learning, press IR Learn first then press the remote control in direct line-of-sight to the IR Receiver connected from the IRL port within 5 seconds. A command string will show in the bottom column. Click on Save Changes to store the command.

For IR command saving, insert the command on the bottom column and click on Save changes to store the command.

6.10.5 Trigger Settings

Click on 'Trigger Settings' to view the current trigger status and edit the trigger behavior. Default setting Status is on Low, Active is on Enable and Mode is on Change, where Status represent current input connection signal status, Active represent enabling or not the trigger action and Mode represent the trigger setting of the input signal. Under mode selection there are Raising, Falling and Change where Raising represent the signal from low to high, falling represent the signal from high to low and change represent both high and low signals.
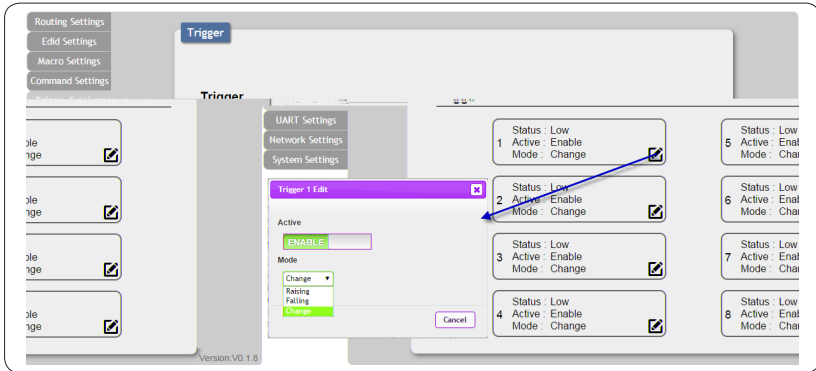

6.10.6 UART Settings

Click on 'UART Settings' to set each COM port's Baud rate, Data bit, Parity and Stop bit. Figures out of the selection range can be set under RS-232 or Telnet.
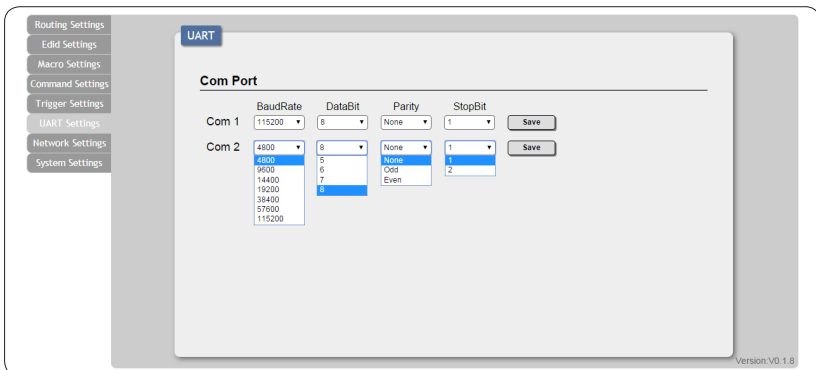
6.10.7 Network Settings

Click on 'Network Settings' to set the device's IP Mode. Once the change is saved the system will reset the IP address on the device automatically and user will need to re-enter the IP address to continue the WebGUI function.
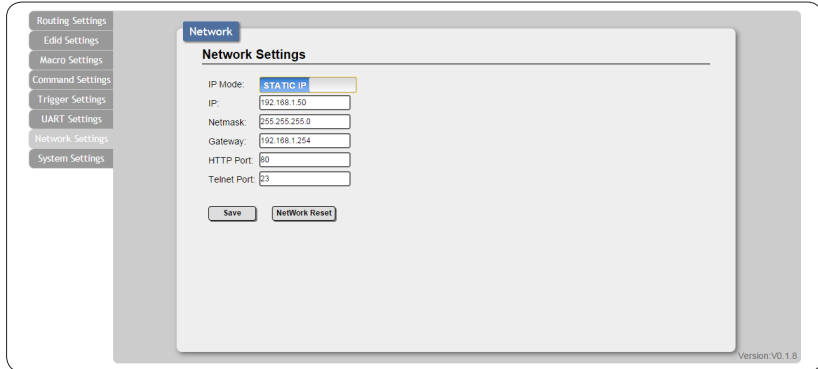
6.10.8 System Settings

Click on 'System Settings' to set power to On/Standby. Matrix Mode is to allow the device's front panel I/O selection to be real time or must press the take button to execute the selection, Download Current Configuration is to save the current setting into your PC/Laptop and Restore Configuration is to bring up a saved setting from your PC/Laptop. Reset to Default and Reboot the Unit is to set the device back to factory setting and restart the device again.

7. CONNECTION DIAGRAM

Integrated 3rd Party Control

| Alarm Sensor | Blind Control | Screen Control | Lighting Control |

RS-232

RS-232

IR Blasters

IR Learner

1.5m 60°	60° 60° 3m 7m 3m
IR BLASTER	**IR RECEIVER**

HDMI Inputs & IR Outputs

Set-top Box   **Satellite Receiver**

DVD/Blu-ray Player   **DVD/Blu-ray Player**   **Smart TV**

RS-232 Controlled Device

RS-232 Controlled Device

Games Console

Smart TV

PC/Laptop

Media Sever

LAN Connections

Power Supply

IR Extender

RS-232

RS-232 Equipped PC/Laptop

LAN

Internet Connected Router

HDMI Outputs

Smart TV

Smart TV

Smart TV

8. SPECIFICATIONS

8.1 Technical Specifications

Video Bandwidth	300 MHz/3 Gbps
Input Ports	4×HDMI, 1×IR Learning, 8×Triggers (Terminal Block), 2×COM (9-pin D-sub), 4×LAN (RJ-45), 1×IP Control (RJ-45), 1×RS-232 (9-pin D-sub), 1×IR (Remote Only), 1×USB (Service Only)
Output Ports	4×HDMI, 8×IR, 8×Relays (Terminal Block)
HDMI Cable Length	10M/1080p, 5M/4K2K
Resolutions Support	480i~1080p@24/50/60, 4K2K@24/25/30, 4K2K@50/60 (YUV420) & VGA~WUXGA (RB)
IR Frequency	30~50 kHz
Baud Rate	Up to 115200 bps
Power Supply	5 V/3.6 A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ±8 kV (air-gap discharge) ±6 kV (contact discharge)
Dimensions	438 mm (W)×269 mm (D)×44 mm (H)/ Jack Excluded 482 mm (W)×276 mm (D)×49 mm (H)/ Jack Included
Weight	3258 g
Chassis Material	Metal
Color	Black
Operating Temperature	0˚C~40˚C/32˚F~104˚F
Storage Temperature	−20˚C~60˚C/−4˚F~140˚F
Relative Humidity	20~90% RH (non-condensing)
Power Consumption	16.5 W

8.2 Supported Resolutions

RESOLUTIONS	INPUT	OUTPUT
640×480@60/72/75/85	√	√
720×400@85	√	√
800×600@560/60/72/75/85	√	√
1024×768@60/70/75/85	√	√
1152×864@75	√	√
1280×720@60	√	√
1280×768@60/75/85	√	√
1280×800@60 (RB)	√	√
1280×800@60	√	√
1280×960@60	√	√
1280×1024@60	√	√
1360×768@60	√	√
1366×768@60	√	√
1400×1050@60 (RB)	√	√
1400×1050@60	√	√
1440×900@60 (RB)	√	√
1440×900@60	√	√
1600×900@60	√	√
1600×1200@60	√	√
1680×1050@60 (RB)	√	√
1680×1050@60	√	√
1920×1080@60	√	√
1920×1200@60 (RB)	√	√
1440×576i@50	√	√
1440×480i@60	√	√
720×480p@60	√	√
720×576p@50	√	√
1280×720p@50/60	√	√

RESOLUTIONS	INPUT	OUTPUT
1920×1080i@50/60	√	√
1920×1080p@24/25/30/50/60	√	√
3840×2160p@24/25/30	√	√
3840×2160p@50/60 (YUV420)	√	√
4096×2160p@24/25/30	√	√
4096×2160p@50/60 (YUV420)	√	√

9. ACRONYMS

ACRONYM	COMPLETE TERM
CLI	Command Line Interface
DVI	Digital Visual Interface
GUI	Graphical User Interface
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television
IR	Infrared
OLED	Organic Light-Emitting Diode
USB	Universal Serial Bus
VGA	Video Graphics Array
WUXGA (RB)	Widescreen Ultra Extended Graphics Array (Reduce Blanking)