# CDPS-U10H2HFS
## 10 By 2 HDMI Matrix Fast Switch

**Operation Manual**

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## SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack or 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 module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

## REVISION HISTORY

| VERSION NO. | DATE DD/MM/YY | SUMMARY OF CHANGE |
|---|---|---|
| VR0 | 22/06/15 | Preliminary Release |
|  |  |  |
|  |  |  |

# CONTENTS

# 1. INTRODUCTION

This 10 by 2 HDMI UHD Matrix is an advanced solution for switching up to 10 HDMI inputs to two HDMI outputs. It provides high performance pass-through of video/audio and is capable of receiving and transmitting 300MHz/9Gbps bandwidth rate with no data loss. It's Fast Switching technology can greatly reduce the time required to swap between inputs. Supporting the latest features you can be assured of reliable and high quality HDMI distribution.

# 2. APPLICATIONS

• Showroom display & control
• Educational demo
• Installation usage
• Advertising display

# 3. PACKAGE CONTENTS

• 10 By 2 HDMI Matrix Fast Switch
• 1 x IR Extender
• 1 x Remote Control with Battery
• 1 x 5V/2.6A Power Adaptor
• 1 x Left & Right Ear Racks
• Operational Manual

# 4. SYSTEM REQUIREMENTS

Input source equipment such as DVD/Blu-ray player and output HD display/Monitor with HDMI cables.
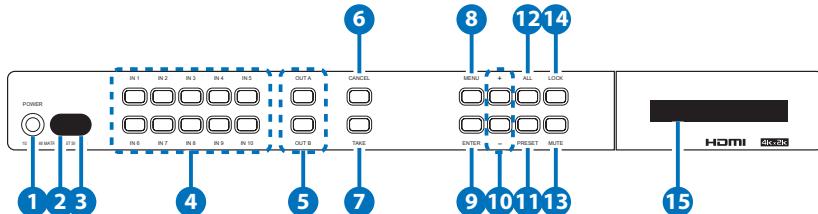
## 5. FEATURES

- Supports UHD resolutions up to 4K2K@24/25/30Hz & 4K2K YUV420@60Hz

- Supports HDTV resolutions up to 1080@60Hz, 'Deep Color' 36/30/24-bit and PC resolutions up to WUXGA@60Hz(RB)

- Supports 3D

- 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

- Supports EDID selection function

- Supports control via IR, RS-232, Telnet and WebGUI controls

- Input port HDCP support Standard and Apple mode. The Apple mode selection to guarantees the use of Apple devices.

- Compliant with DVI source

**Note:** *Supporting HDMI to DVI conversion when HDMI sources is non-deep color and color space RGB.*

# 6. OPERATION CONTROLS AND FUNCTIONS

## 6.1 Front Panel



**1 POWER Button**

Press this button to switch On or set the device to standby mode.

**2 POWER LED**

This LED will illuminate in green when the device is power On and if it is switched to standby mode the LED will turn red.

**3 IR Window**

This IR Receiver receives the remote control signal from the package included remote control only.

**4 IN 1~10**

Press these IN buttons to select an input from the 10 input sources.

**5 OUT A/B**

Press these buttons once a time along with an IN buttons to select an input source for an output display. i.e. OUTA → IN1 → TAKE or OUTB → IN10 → TAKE.

**6 CANCLE**

Press this button to cancel the IN/OUT selection and during any selection under MENU.

**7 TAKE**

Press this button to confirm the selection of an IN and an OUT button. If this button is not pressed the IN & OUT selection will not be executed.

**8 MENU**

Press to enter into the menu selection.

**⑨ ENTER**

Press to confirm the selection.

**⑩ +/-**

Press these buttons to move up/down under menu selection.

**⑪ PRESET**

Press this button to recall the preset setting from 1~10. Press and select from IN1~10 then press TAKE to confirm the recall selection or press CANCEL to exit the selection. To reset the Preset setting, enter into menu and select Preset setting from IN1~10 then press OUTA and select an input from IN1~10 then press OUTB and select an input from IN1~10 again and press ENTER to confirm the selection. eg. To preset 2's figure, MENU → ENTER → Matrix Preset → Enter→ Preset2 → IN2 → OUTA → IN8 → OUTB → IN7 → ENTER

**⑫ ALL**

Press this button to select all outputs to display with an input source. e.g. To select all output with input source 3. ALL → IN3

**⑬ MUTE**

Press this button to mute video and audio on OUT A or B or on all output. e.g. To mute output A OUTA → MUTE

**⑭ LOCK**

Press this button to lock all button functions on the panel to unlock, press the button and hold for 3 seconds.

**⑮ LCM**

Displaying Input and Outputs selection and menu selection.

# 6.2 Rear Panel



**1  HDMI IN**

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

**2  HDMI OUT**

Connect to HDMI TV/display or HD Amplifier for output image and or audio display.

**3  SERV.**

This slot is reserved for firmware update use only.

**4  CONTROL**

Connect from PC/Laptop with active internet service for Telnet or WebGUI control with RJ-45 terminated cable.

**5  RS-232**

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

**6  IR IN**

Connect the IR Receiver included in the package for IR signal receive from the included remote control.

**7  DC 5V**

Connect the adaptor included in the package and connect to AC wall outlet for power supply.

## 6.3 Remote Control

**1 POWER**

Press this button to switch On or set the device to standby mode.

**2 MUTE**

Press this button to mute video and audio on OUT A or B or on all output. e.g. To mute output A OUTA → MUTE

**3 OUT A/B**

Press these buttons once a time along with an IN buttons to select an input source for an output display. i.e. OUTA → IN1 → TAKE or OUTB → IN10 → TAKE.

**4 IN 1~10**

Press these IN buttons to select an input from the 10 input sources.

**5 +/-**

Press these buttons to move up/down under menu selection.

**6 OK**

Press to confirm the selection.

**7 CANCEL**
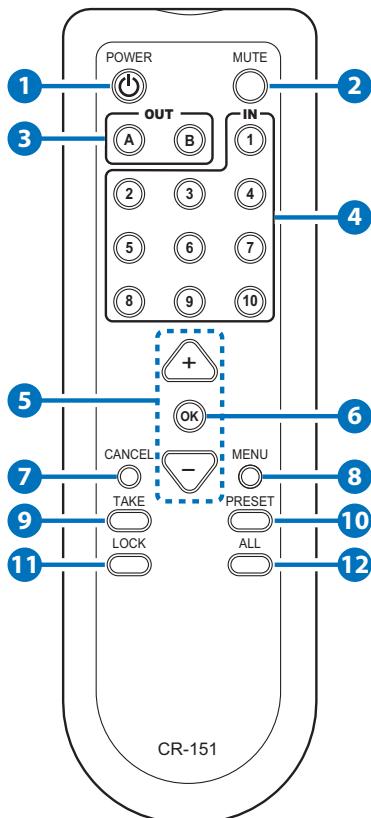
Press this button to cancel the IN/OUT selection and during any selection under MENU.

**8 MENU**

Press to enter into the menu selection.

**9 TAKE**

Press this button to confirm the selection of an IN and an OUT button. If this button is not pressed the IN & OUT selection will not be executed.

CR-151

**10 PRESET**

Press this button to recall the preset setting from 1~10. Press and select from IN1~10 then press TAKE to confirm the recall selection or press CANCEL to exit the selection. To reset the Preset setting, enter into menu and select Preset setting from IN1~10 then press OUTA and select an input from IN1~10 then press OUTB and select an input from IN1~10 again and press ENTER to confirm the selection. eg. To preset 2's figure, MENU → ENTER → Matrix Preset → ENTER → Preset2 → IN2 → OUTA → IN8 → OUTB → IN7 → ENTER

**11 LOCK**

Press this button to lock all button functions on the panel to unlock, press the button and hold for 3 seconds.

**12 ALL**

Press this button to select all outputs to display with an input source. e.g. To select all output with input source 3. ALL → IN3

## 6.4 OSD Menu

| Main Menu | Sub Menu | Description | Default |
|-----------|----------|-------------|---------|
| EDID Mode | All | All Input port is using same EDID.<br>In menu "EDID All", can select suitable EDID. | All |
| | Appoint | Each Input port can select individual EDID.<br>In menu "EDID IN1~10" select suitable EDID. | |
| | Exit | | |
| EDID All | Sink A | Copy Output A display EDID | 8/2D/PCM/1080p |
| | Sink B | Copy Output B 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 | |
| | 8/2D/PCM/AC3/1080p | Standard EDID, Content: deep color/2D3D/audio/native resolution | |

| Main Menu | Sub Menu | Description | Default |
|-----------|----------|-------------|---------|
| | 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 | |
| | 8/2D/PCM/ Y420 | Standard EDID, Content: deep color/2D3D/audio/ native resolution | |
| | 8/2D/PCM/ AC3/Y420 | Standard EDID, Content: deep color/2D3D/audio/ native resolution | |
| | Exit | | |
| EDID IN1 | Same EDID All | Select Input 1's EDID | Same EDID All |
| EDID IN2 | Same EDID All | Select Input 2's EDID | Same EDID All |
| EDID IN3 | Same EDID All | Select Input 3's EDID | Same EDID All |
| EDID IN4 | Same EDID All | Select Input 4's EDID | Same EDID All |
| EDID IN5 | Same EDID All | Select Input 5's EDID | Same EDID All |
| EDID IN6 | Same EDID All | Select Input 6's EDID | Same EDID All |
| EDID IN7 | Same EDID All | Select Input 7's EDID | Same EDID All |
| EDID IN8 | Same EDID All | Select Input 8's EDID | Same EDID All |

| Main Menu | Sub Menu | Description | Default |
|---|---|---|---|
| EDID IN9 | Same EDID All | Select Input 9's EDID | Same EDID All |
| EDID IN10 | Same EDID All | Select Input 10's EDID | Same EDID All |
| Matrix Preset | Preset 1 | IN/OUT default No.1 | A=1 , B=1 |
| | Preset 2 | No.2 | A=1 , B=1 |
| | Preset 3 | No.3 | A=1 , B=1 |
| | Preset 4 | No.4 | A=1 , B=1 |
| | Preset 5 | No.5 | A=1 , B=1 |
| | Preset 6 | N0.6 | A=1 , B=1 |
| | Preset 7 | N0.7 | A=1 , B=1 |
| | Preset 8 | N0.8 | A=1 , B=1 |
| | Preset 9 | N0.9 | A=1 , B=1 |
| | Preset 10 | N0.10 | A=1 , B=1 |
| | Exit | | |

*To reset the Preset setting, select a Preset from 1~10 then press OUTA and select an input from 1~10 then press OUTB and select an input from 1~10 again and press ENTER to confirm the selection.*

| | | | |
|---|---|---|---|
| HDCP Input | IN1 Standard/Apple | Set IN1 in Apple/Standard mode | Standard |
| | IN2 Standard/Apple | Set IN2 in Apple/Standard mode | Standard |
| | IN3 Standard/Apple | Set IN3 in Apple/Standard mode | Standard |
| | IN4 Standard/Apple | Set IN4 in Apple/Standard mode | Standard |
| | IN5 Standard/Apple | Set IN5 in Apple/Standard mode | Standard |

| Main Menu | Sub Menu | Description | Default |
|---|---|---|---|
| | IN6 Standard /Apple | Set IN6 in Apple/ Standard mode | Standard |
| | IN7 Standard /Apple | Set IN7 in Apple/ Standard mode | Standard |
| | IN8 Standard /Apple | Set IN8 in Apple/ Standard mode | Standard |
| | IN9 Standard /Apple | Set IN9 in Apple/ Standard mode | Standard |
| | IN10 Standard /Apple | Set IN10 in Apple/ Standard mode | Standard |
| | Exit | | |
| Network Setup | IP Mode | DHCP , Static | DHCP |
| | IP | Setup Static IP | 192.168.1.50 |
| | Mask | Setup Static Netmask | 255.255.255.0 |
| | Gate | Setup Static Gateway | 192.168.5.254 |
| | 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 Address | --- |
| | Exit | | |

| Main Menu | Sub Menu | Description | Default |
|---|---|---|---|
| Source Detection *(Detect Source's 5V-pin only)* | IN1 On/Off , IN2 On/Off | IN1 , IN2 detect source with/without the signal | --- |
| | IN3 On/Off , IN4 On/Off | IN3 , IN4 detect source with/without the signal | |
| | IN5 On/Off , IN6 On/Off | IN5 , IN6 detect source with/without the signal | |
| | IN7 On/Off , IN8 On/Off | IN7 , IN8 detect source with/without the signal | |
| | IN9 On/Off , IN10 On/Off | IN9 , IN10 detect source with/without the signal | |
| | Exit | | |
| Sink A Info | Type, Manuf. | Detect and Analysis Output A display's EDID Content: type(HDMI/DVI/VGA), Manufactory/Model number | --- |
| | Native | Content: native resolution | |
| | Video Format | Content: deep color, 2D or 3D, 4K2K | |
| | Audio Format | Content: PCM, BitStream, HBR | |
| | Exit | | |
| Sink B Info | Same Sink A Info | Detect and Analysis Output B display's EDID | --- |

| Main Menu | Sub Menu | Description | Default |
|---|---|---|---|
| Firmware | FW Version | Display the model number and FW version | --- |
| | Update | FW Update | |
| | Exit | | |
| Factory Reset | Do Reset | Do system Reset | --- |
| | Exit | | |
| Exit | | | |

## 6.5 RS-232 Protocols

| Switch | |
|---|---|
| PIN | Assignment |
| 1 | NC |
| 2 | TxD |
| 3 | RxD |
| 4 | NC |
| 5 | GND |
| 6 | NC |
| 7 | NC |
| 8 | NC |
| 9 | NC |

| Remote Control | |
|---|---|
| PIN | Assignment |
| 1 | NC |
| 2 | RxD |
| 3 | TxD |
| 4 | NC |
| 5 | GND |
| 6 | NC |
| 7 | NC |
| 8 | NC |
| 9 | NC |

Baud Rate: 115200bps
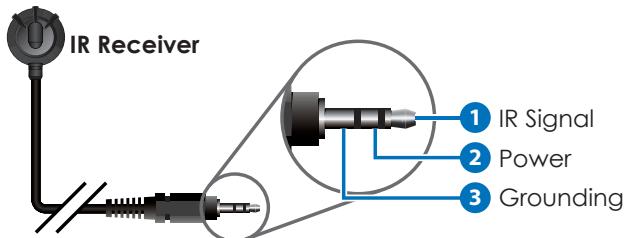
Data bit: 8 bits

Parity: None

Flow Control: None

Stop Bit: 1

## 6.6 IR Pin Definitions



IR Receiver

1 IR Signal
2 Power
3 Grounding
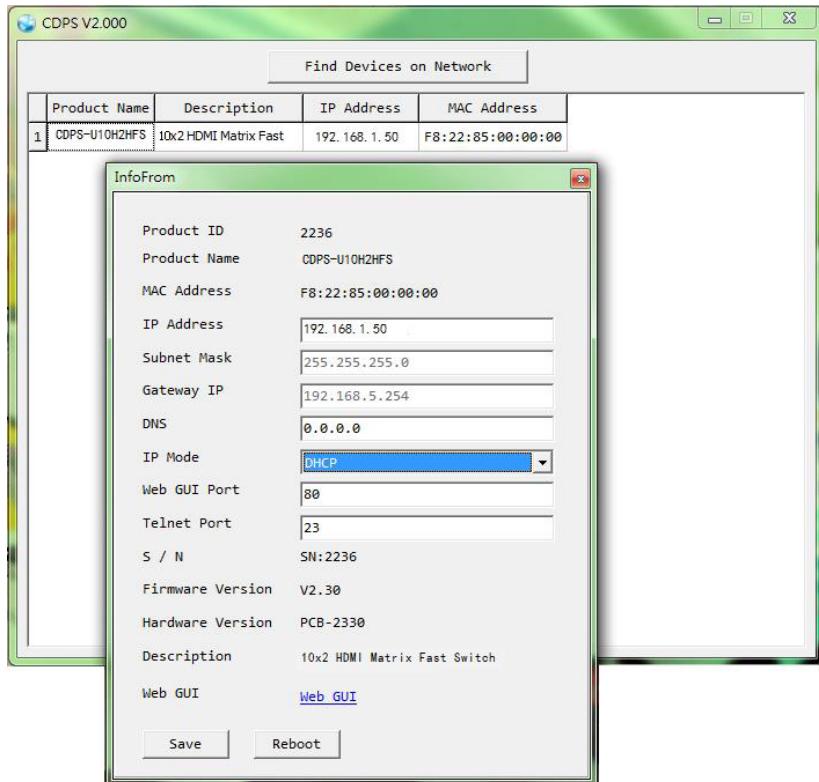
## 6.7 IP Searching Software Application and Installation

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.



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

## 6.8 Telnet & RS-232 Commands

| Command Name | Description | Description of parameter |
|---|---|---|
| P0 | Power Off (Standby) | NONE |
| P1 | Power On | NONE |
| A *N* | Set Output A Source | N=1-10 |
| B *N* | Set Output B Source | N=1-10 |
| I *N* | Set All Outputs Source | N=1-10 |
| IPCONFIG | Display The Current IP Configure | NONE |
| SIPADDR XXX.XXX. XXX.XXX | Set Ethernet IP Address | XXX=0~255 |
| SNETMASK XXX.XXX. XXX.XXX | Set Ethernet Net Mask | XXX=0~255 |
| SGATEWAY XXX.XXX. XXX.XXX | Set Ethernet Gateway | XXX=0~255 |
| HTTPPORT *N* | Set Http Port Number | N=0~65535 |
| RSTIP | IP Configuration Reset To <DHCP> | NONE |
| EDIDMODE | Show EDID MODE | NONE |
| EDIDMODE *N* | Set EDID Mode | N=0(Appoint), 1(All) |
| EDIDALL | Show EDID Mode Source For All | NONE |
| EDIDALL *N* | Set EDID Mode Source For All | N=1-10 |
| EDIDIN | Show Input EDID Source | NONE |
| EDIDIN *N1* | Show Input *N1* EDID Source | N1=1-10 |
| EDIDIN *N1* *N2* | Set Input *N1* EDID Source | N1=1-10  N2=1-10 |

| Command Name | Description | Description of parameter |
|---|---|---|
| HDCPIN | Input HDCP Status | NONE |
| HDCPIN *N1* | Show Input *N1* HDCP Status | N1=1-10 |
| HDCPIN *N1 N2* | Set Input *N1* HDCP On/Off | N1=1-10  N2=0(OFF), 1(ON) |
| PRESET | Show All Preset Configure | NONE |
| PRESET *N1* | Set Preset *N1* Source to Outputs | N1=1-10 |
| PRESET *N1 N2* | Set Preset *N1* Configure | N1=1-10  N2=AXBX (X=01-10,0M) |
| SOURCEDET | Show All Input Signal | NONE |
| SOURCEDET *N1* | Show Input N1 Signal | N1=1-10 |
| SINKINFO | Show Output Information | NONE |
| INNAME | Show Input Name | NONE |
| INNAME *N1 N2* | Set Input *N1* Name | N1=1-10 N2=ABCDEFGH(Max Length=8) |
| OUTNAME | Show Output Name | NONE |
| OUTNAME *N1 N2* | Set Output *N1* Name | N1=1-2 N2=ABCDEFGH(Max Length=8) |
| VER | Show Unit Firmware Version | NONE |
| REBOOT | System Reboot | NONE |
| HELP (?) | Show Command List | NONE |
| HELP *N* | Show Descript Of Command | N : COMMAND NAME |

| Command Name | Description | Description of parameter |
|---|---|---|
| FADEFAULT | All Configure Set To Factory Default | NONE |
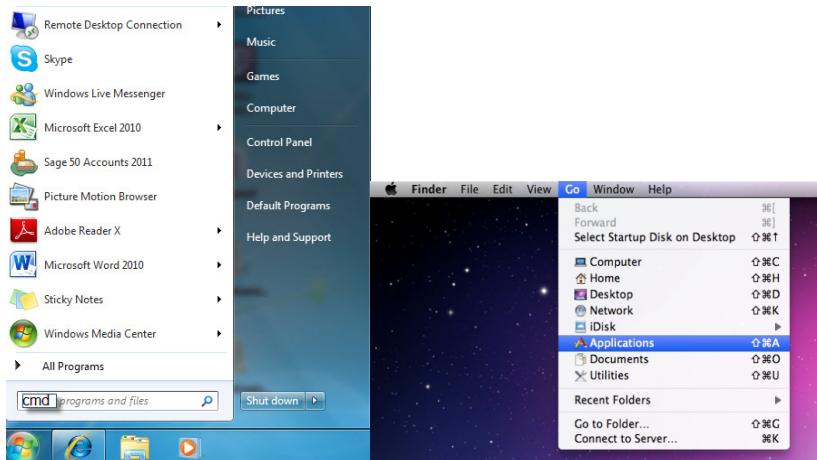
**Note:** *All the RS-232 command will be not executed unless followed with a carriage return. All commands are case-sensitive.*

## 6.9 Telnet Control

To access the telnet control in Windows 7, click on 'Start' menu and type "cmd" in the Search field then press enter.

Under Windows XP go to the 'Start' menu and click on "Run", type "cmd" and press enter.

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

Once in the command line interface (CLI) type "telnet", then the IP address of the unit and hit enter.

Type HELP or ? to bring out all the 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
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
VER             : SHOW UNIT FIRMWARE VERSION
REBOOT          : SYSTEM REBOOT
?               : SHOW DESCRIPT OF COMMAND
HELP            : SHOW DESCRIPT OF COMMAND
FADEFAULT       : ALL CONFIGURE SET TO FACTORY DEFAULT

>_
```

*Note:* All the commands will be not 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 inside the OSD menu) on the web address entry bar. The browser will display device's Status, IO Status, Matrix Control, Settings and Network Configuration control pages for users to control.

### Status

**Routing status**

| | |
|---|---|
| Power | ON ▾ |
| Output A From | INPUT9 ▾ |
| Output B From | INPUT1 ▾ |
| Output All From | Select ▾ |
| EDID Mode: | ALL |

**Preset Info**

| | | |
|---|---|---|
| Preset 1 | Preset 1: | Output A:(1)Output B:(1) |
| Preset 2 | Preset 2: | Output A:(1)Output B:(2) |
| Preset 3 | Preset 3: | Output A:(1)Output B:(3) |
| Preset 4 | Preset 4: | Output A:(1)Output B:(4) |
| Preset 5 | Preset 5: | Output A:(1)Output B:(5) |
| Preset 6 | Preset 6: | Output A:(9)Output B:(6) |
| Preset 7 | Preset 7: | Output A:(1)Output B:(7) |
| Preset 8 | Preset 8: | Output A:(1)Output B:(8) |
| Preset 9 | Preset 9: | Output A:(1)Output B:(9) |
| Preset 10 | Preset 10: | Output A:(1)Output B:(10) |

| Status | IO Status | Matrix Control | Settings | Network Configuration |

Click on Status for input and output and Preset selection.

### IO Status

**Source Detection**

| | |
|---|---|
| Input 1: OFF | Input 6: OFF |
| Input 2: OFF | Input 7: OFF |
| Input 3: OFF | Input 8: OFF |
| Input 4: OFF | Input 9: OFF |
| Input 5: OFF | Input 10: OFF |

**Sink A Info**

| | |
|---|---|
| Type: | - |
| Manuf. Name: | - |
| Native resolution: | - |
| Color Depth: | - |
| 3D: | - |
| 4K2K: | - |
| Audio Format: | - |

**Sink B Info**

| | |
|---|---|
| Type: | - |
| Manuf. Name: | - |
| Native resolution: | - |
| Color Depth: | - |
| 3D: | - |
| 4K2K: | - |
| Audio Format: | - |

**Input Naming**

| | | | |
|---|---|---|---|
| INPUT 1 | INPUT1 | INPUT 6 | INPUT6 |
| INPUT 2 | INPUT2 | INPUT 7 | INPUT7 |
| INPUT 3 | INPUT3 | INPUT 8 | INPUT8 |
| INPUT 4 | INPUT4 | INPUT 9 | INPUT9 |
| INPUT 5 | INPUT5 | INPUT 10 | INPUT10 |

Save Name

**Output Naming**

| | |
|---|---|
| OUTPUT A | OUTPUTA |
| OUTPUT B | OUTPUTB |

Save Name

| Status | IO Status | Matrix Control | Settings | Network Configuration |

Click on IO Status to view connection status and output EDID information and to rename input and output ports.

Click on Matrix Control to set the EDID mode for each and all inputs.



Click on Settings to set each input's HDCP Control and Preset Configuration.

## Network Configuration
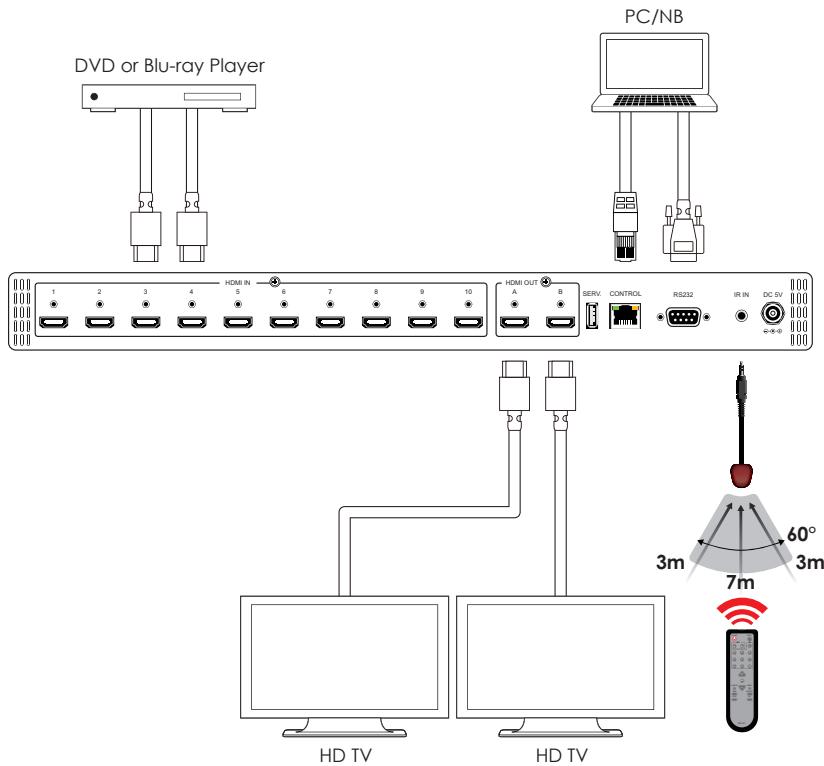


| | |
|---|---|
| MAC Address | F8-22-85-00-03-C9 |
| Address Type | DHCP |
| IP Address | 192.168.5.131 |
| Net Mask | 255.255.255.0 |
| Default Gateway | 192.168.5.254 |
| Http Port | 80 |
| Telnet Port | 23 |

Save

| Status | IO Status | Matrix Control | Settings | Network Configuration | |

Click on Network Configuration to set the device's IP configuration. Once the changes are saved the system will reset the IP address on device automatically and user will need to re-enter the IP address to continue the WebGUI function.

# 7. CONNECTION DIAGRAM

DVD or Blu-ray Player

PC/NB



HDMI IN 1 2 3 4 5 6 7 8 9 10 HDMI OUT A B SERV. CONTROL RS232 IR IN DC 5V

60°

3m    3m

7m

HD TV          HD TV

# 8. SPECIFICATIONS

| | |
|---|---|
| **Video Bandwidth** | 300MHz / 9Gbps |
| **Input Ports** | 10 x HDMI, 1 x IR Extender, 1 x RJ-45 (Control), 1 x RS-232, 1 x USB (Firmware update only) |
| **Output ports** | 2 x HDMI |
| **Resolution** | HD: 480i~1080p@24/50/60, 4K2K@24/25/30 & 4K2K@60 YUV_420 |
| **HDMI I/O Cable Length** | Up to 10M at 1080p@ 8/12 bits or up to 5M at 4K2K |
| **Power Supply** | 5V DC/2.6A (US/EU standards, CE/FCC/UL certified) |
| **ESD Protection** | Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge) |
| **Dimensions** | 438mm (W) x 269mm (D) x 44mm (H)/ Jacks Excluded 482mm (W) x 276mm (D) x 52mm (H)/ Jacks Included |
| **Weight** | 2854g |
| **Chassis Material** | Metal |
| **Silkscreen 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 (no condensation) |
| **Power Consumption** | 8.3w (Max) |

| DVI and HDMI Supported Resolutions | Input | Output |
|---|---|---|
| 640x480@60/72/75 | V | V |
| 720x480@60 | V | V |
| 720x576p@50 | V | V |
| 800x600@60/72/75 | V | V |
| 1024x768@60/70/75 | V | V |
| 1280x720@50/60 | V | V |
| 1280x720p@60 | V | V |
| 1280x768@60 | V | V |
| 1280x800@60 | V | V |
| 1280x1024@60 | V | V |
| 1360x768@60 | V | V |
| 1600x1200@60 | V | V |
| 1920x1080i@50/60 | V | V |
| 1920x1080p@24/25/30/50/60 | V | V |
| 1920x1200@60(RB) | V | V |
| 3840x2160@24/25/30 | V | V |
| 3840x2160@50/60 YUV420 | V | V |
| 4096x2160@24/25/30 | V | V |
| 4096x2160@50/60 YUV420 | V | V |