LINK-MI®

LINK-MULTIMEDIA INTERFACE

HDMI 8×8 Matrix

Operating Instructions

LM-HD808-4K

Introduction

LM-HD808-4K is an 8-by-8 HDMI matrix. It allows any of the eight Input Channels (HDMI) to be routed to any of the eight Output Channels (HDMI), no matter the source is HDCP or not. Users can choose several different ways to control the matrix: by using infrared, RS232, and LAN and supplied remote control.

LM-HD808-4K internal EDID library features default EDID configurations, in addition to native EDID data for any output/display.

LM-HD808-4K offers solutions for digital entertainment center, HDTV retail and show site, HDTV, STB, DVD and projector factory, noise, space and security concerns, data center control, information distribution, conference room presentation, school and corporate training environments.

HDMI Matrix (Routing Type)

Product Overview

Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Features

- Allows up to eight HDMI audio/video devices to be independently switched to eight HDMI monitors, HDTV's, or projectors.
- The eight output channels could show the same or different source simultaneously no matter the source is HDCP or not.
- Reading and saving EDID function from displays.
- Support high definition resolutions, including:
  4Kx2K, 1080p, 3D, 1080i, 720p and other standard video formats.
- Each port support both HDMI and DVI inputs.
- With extra infrared extension receiver.
- Four switching modes: panel buttons, local IR, RS232 and Ethernet.
- HDCP compliant
- HDMI 1.4 supported.

Notice

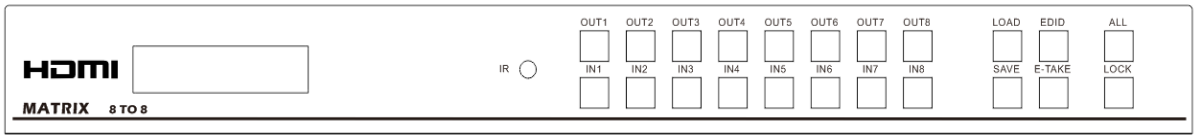
We. reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

Package Contents

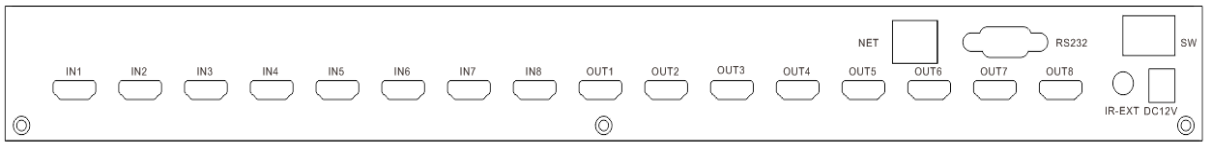
1. 1x Main unit.
2. 1x Remote.
3. 1x RS232 cable
4. 12V/DC Power Supply.
5. 1x CD-ROM(Control software operating instructions).
6. Mounting ears.

📖 **NOTE:** PART NUMBER (Abbreviation as P/N).

Panel Descriptions



1 OUT1--8: HDMI output .
2 IR : IR receive.
3 IN1--8: HDMI input .
4 ALL: HDMI output 1--8
5 LOCK: Press this button to lock all the functions and press it again to release the lock.



1 RS232 port.
2 LAN port.
3 HDMI output port.
4 HDMI input port (HDMI or DVI).
5 Power: Press this button to turn the system on.
6 IR extender: This slot is where you can extend your IR receiver with an IR extender cable that supports only 38KHz.
7 Power input: Plug the 12V DC power supply into the unit and connect the adaptor to an AC wall outlet.

Connections and Operations

1) Connect the HDMI input source (☞such as HD-DVD/ PS3/STB etc.)Into MX88.

2) Connect HDMI OUT of MX88 to display equipment.
3) Connect the Broadband IR receive cable into MX88 IR RX ports.
4) Power on the input source you want to show. (☞Keep the unused input power off, otherwise it may interfere the normal display).
5) Plug the power cable into MX88.
6) Turn on the power, when the LED panel stops flashing circularly, the initialization of the matrix are ready.
7) Turn on the displays you want to watch.
8) Use the remote to control the matrix, or using Front Panel, RS232 and LAN port to control.

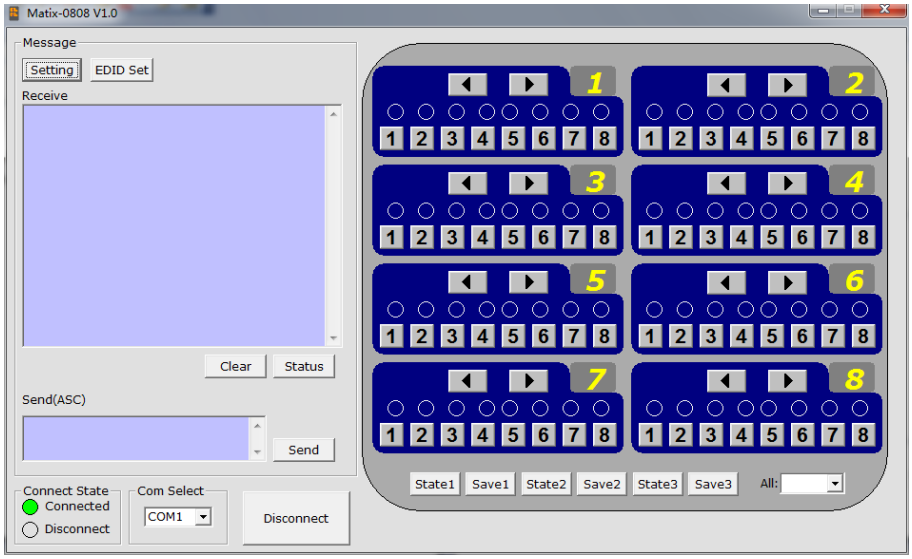
2. Control via IR remote.

User can control the HDMI route of the matrix by using the IR remote. There are two group key pads for sixteen ports. Press the output source selection button in order to choose which input port corresponds to the desired output port. (For example: Output 8 select Input 7, first press output 8, then press input 7, LCD display 8-7)

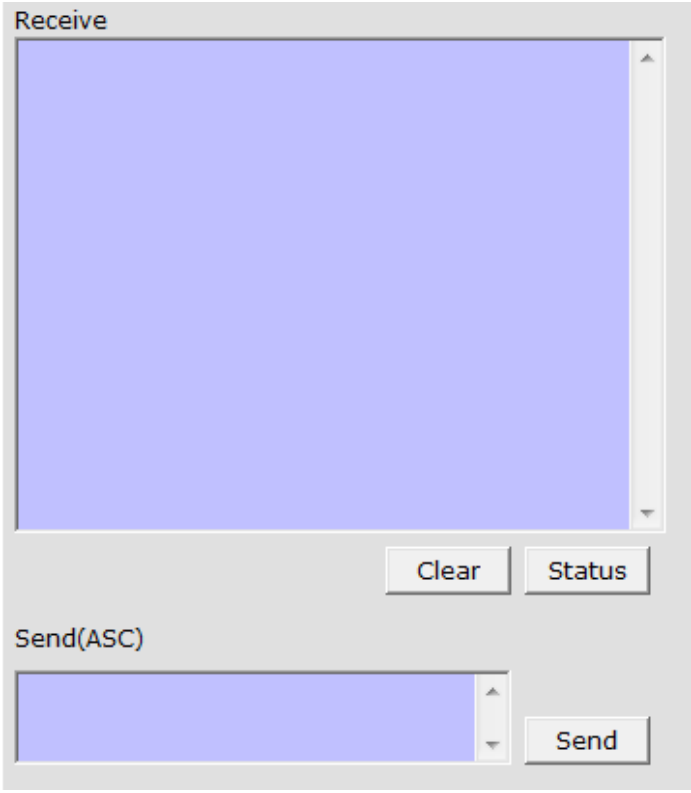
🕮 **NOTE:** if the IR remote isn't work, please press the" system code switch key", but please do not put the remote against the LM-HD808-4K

3. Control via RS232.

1) The Interface of LM-HD808-4K comctl



2) **The Message Window**



2.1) Receive Window

The “receive window” will show the message received from LM-HD808-4K. When you click the Control Buttons (☞see step 4) or send Control Command (☞see 2.3) to LM-HD808-4K, it will send out the message about “operation results” as below:

2.2) Status Button

Click this button to read the status of LM-HD808-4K. The status is about which input is selected by the output.

2.3) Send Window

Input the control command in this window. The control command use ASCII.

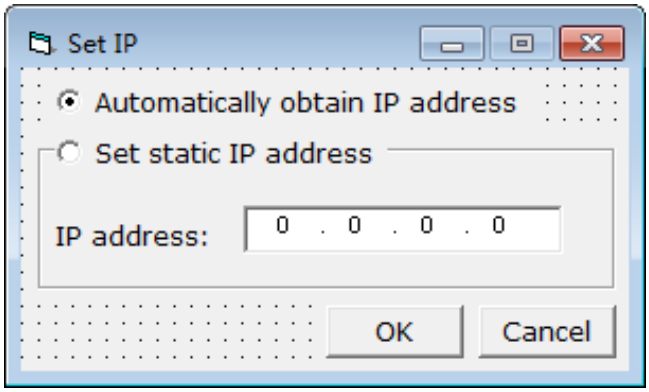
2.4) Setting Button

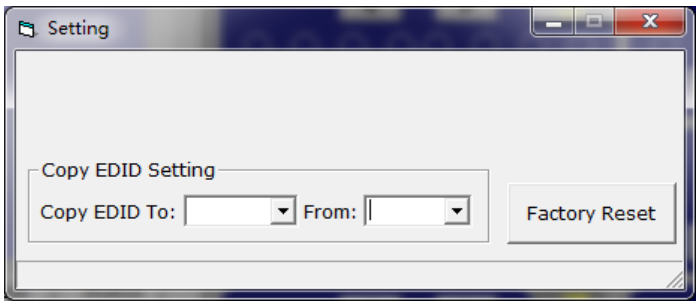
Click this button to enter Setting menu.

2.5) IP SET Button

Click this button to set IP address for LAN control (for example: 192.168.0.3).

2.6) EDID Set button

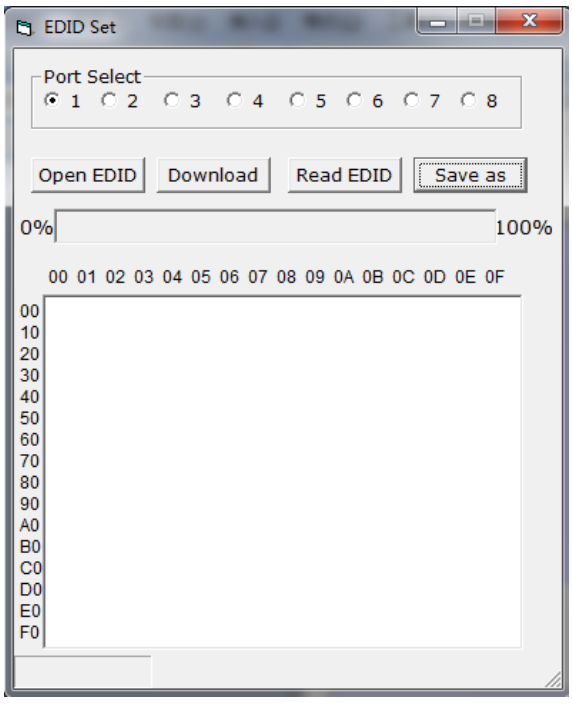




Select the Output Port in “Port Select” column, click “Read” button to get EDID from display equipment.

Select the Input Port in “Port Select” column, click “Write” button to set EDID of this Input Port the same as display equipment.

Click “Save as” button to save EDID read from display equipment as “*.bin” file.
Click “Open” button to open saved “*.bin” file, select the Input Port in “Port Select” column, click “Download” button to set EDID of this Input Port the same as “*.bin” file.



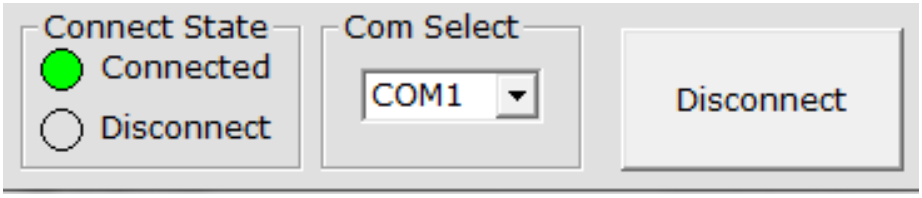
3) The Com status

3.1）Connect state.

Connect state shows the com open or not.

3.2）Com select.

→ Select which com you will use.
→ Connect button.



The word on this button will change when the connection state changes. If the word is “Disconnect”, then click this button, the com will be closed. If the word is “Connect”, then click this button, the com will be opened.

4) Control command format

If user want to write his own control software, below are data format and baud rate setting.

Com port setting:

Baud Rate:	9600 bps
Data bits:	8 bits
Parity:	None
Stop bits:	1 bit
Flow control:	None

5) RS232 command

command		feedback	description
cir_0x\r\n		s1y	Output 1 select input 1~8 “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.
cir_1x\r\n		s2y	Output 2 select input 1~8 “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.
cir_2x\r\n		s3y	Output 3 select input 1~8 “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.
cir_3x\r\n		s4y	Output 4 select input 1~8 “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.
cir_4x\r\n		s5y	Output 5 select input 1~8 “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.
cir_5x\r\n		s6y	Output 6 select input 1~8 “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.

cir_6x\r\n		s7y	Output 7 select input 1~8 “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.
cir_7x\r\n		s8y	Output 8 select input 1~8 “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.
asw_x\r\n		s1y s2y s3y s4y s5y s6y s7y s8y	All output select input x; “x” : indicate the input port, range from 0~7. “y” : indicate the input port, range from 1~8.
bc_\r\n		s1x s2x s3x s4x s5x s6x s7x s8x	Obtain the input status. “x” : indicate the input port, range from 1~8.
sed_x_y\r\n		sed_x_y	Copy edid from “x” to “y”, “x””y” range from 0~7
rst_\r\n			Reset factory settings.

6**) Web password reset**

The command length is 4 bytes.

rpw+ ‘↙’

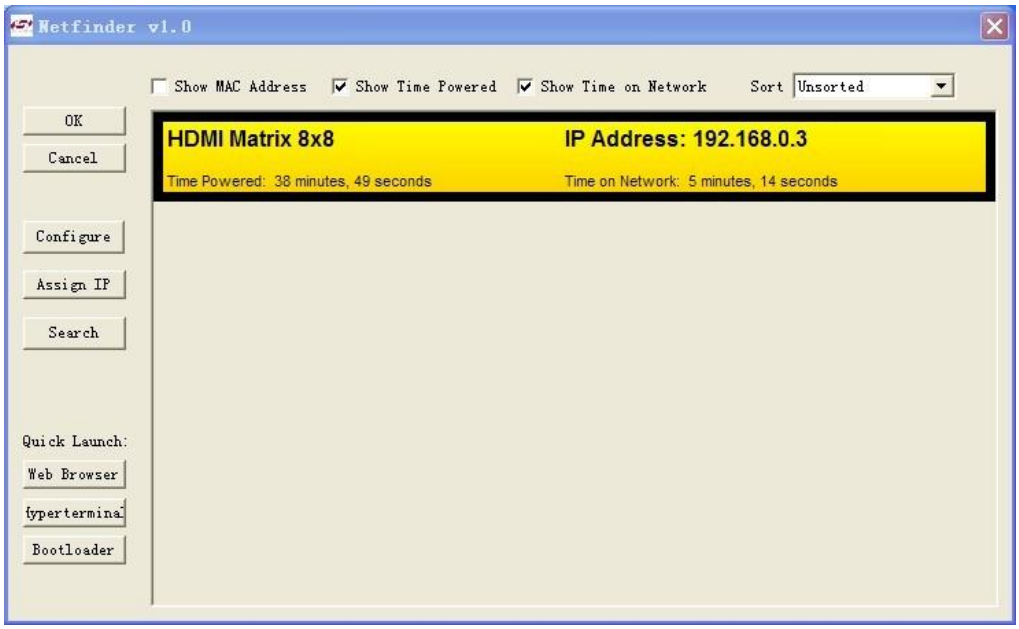
“rpw” is the key word , ‘↙’ is carriage return.

When you send the Web password reset command to LM-HD808-4K, if succeed, it will feedback "rpw", and the web password will be set as "0000000000".

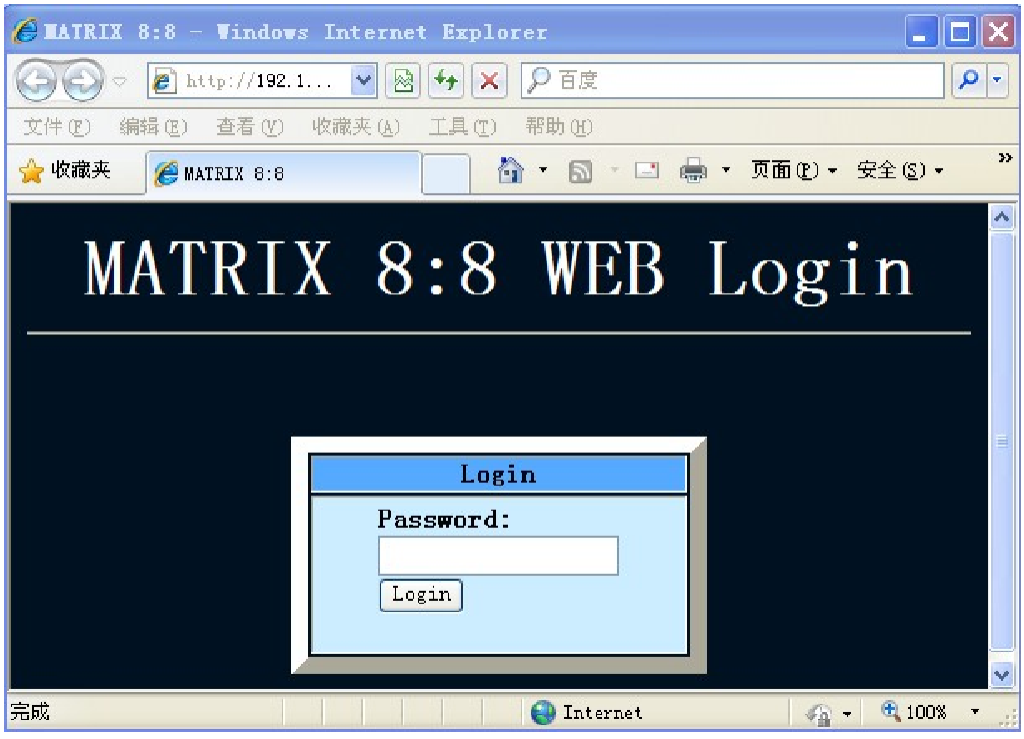
4. LAN control

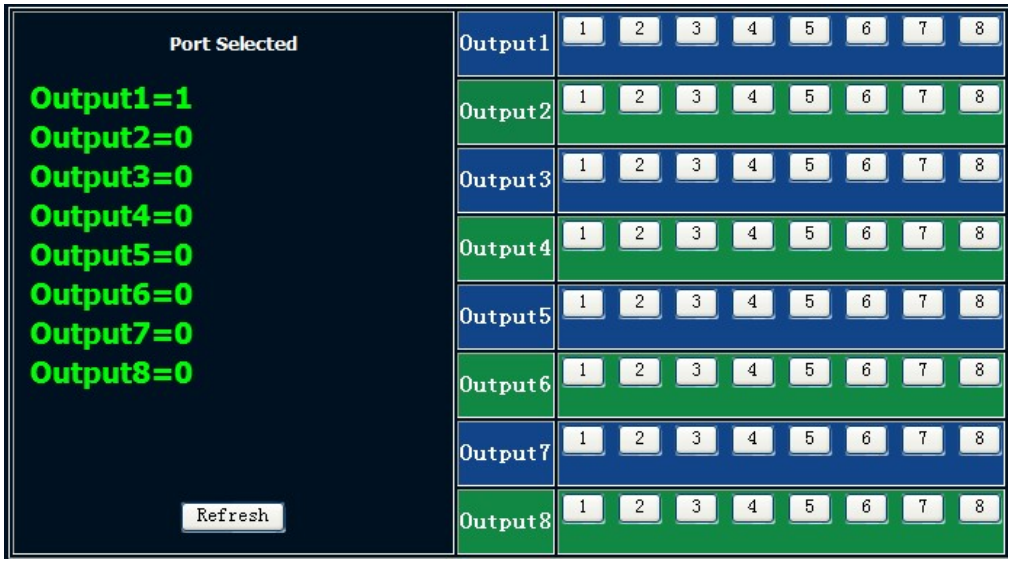
& Note: Use the direct UTP cable to connect with PC, or use cross cable to connect to the Ethernet switcher

A. Double click Netfinder.exe. Click “Search” button to get the device IP address.



B. Click “Web Browser” button. A web browser will be shown. The default password is "0000000000", input the password and login. The device controller page will be displayed.

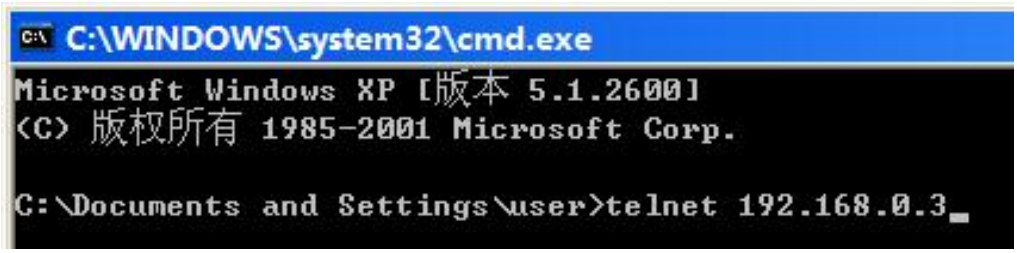




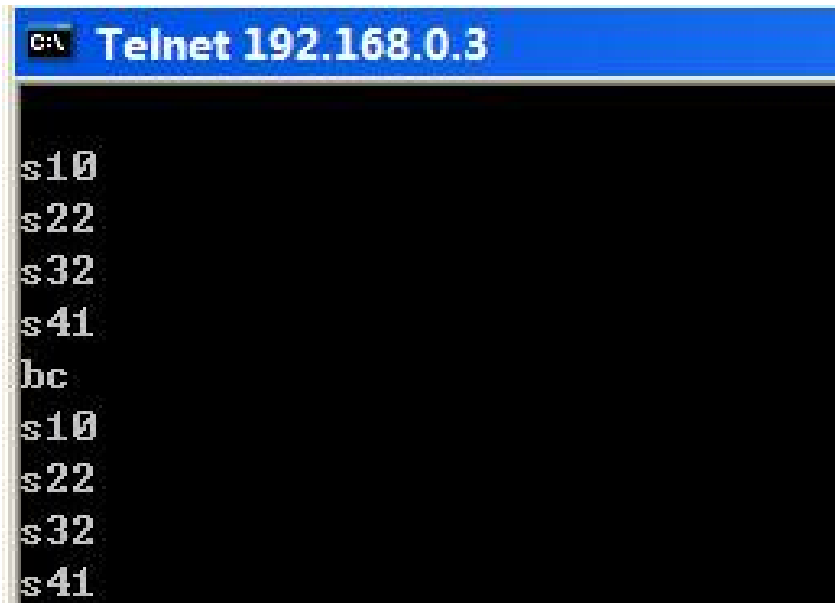
The right area is for device controlling. Click these buttons to control the device. It is the same as using the remote controller. The left area shows which input ports are being chosen by the output ports.

C. Telnet Control

Telnet matrix's IP address



Now you can control the matrix (Page 14: Control command format)



Specifications

Operating Temperature Range	0 to +35°C (32 to +95°F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Video Format Supported	DTV/HDTV:3D/ 1080P/1080i/720P/ 576P/480P/576i/480i
Audio Format Supported	DTS-HD、Dolby HD
Output Video	HDMI 1.3 with 3D
Maximum Transmission Distance	1080P 15m over HDMI cable
Power Consumption	24 Watts (Max.)
Dimensions	W436.9XH211XT44.5mm
Mass (Main unit)	2800g

📖 **NOTE:** Specifications are subject to change without notice. Mass and dimensions are approximate.

Typical Application