



**LM-EW53**

**HD Extender Wallplate TO BOX KIT**

**OPERATION MANUAL**



Operating Instruction

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.

## **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.

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

## 11. PRODUCT SERVICE

### (1) Damage requiring service:

The unit should be serviced by qualified service personnel if:

- (a) The DC power supply cord or AC adaptor has been damaged;
- (b) Objects or liquids have gotten into the unit;
- (c) The unit has been exposed to rain;
- (d) The unit does not operate normally or exhibits a marked change in performance;  
The unit has been dropped or the cabinet damaged.

**(2) Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.

**(3) Replacement parts:** When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other Hazards.

**(4) Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

## 12. WARRANTY

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor" ) will, for the length of the period indicated as below, **(Parts 2)Year, Labor 90) Days)** which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labor" Limited Warranty period there will be no charge for labor.

During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

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## 1. INTRODUCTION

This Model allows HDMI signals to be transmitted over a Single CAT5e/6 cable. This solution has the added features of RS232 and 2-way IR control functionality over the same CAT5e/6 cable. It can extend 4K@60Hz HDR 10 over a HDBaseT link and upto 40M ! The slimmest HDBaseT design, making it perfect to mount behind ultra thin TVs.

## 2. APPLICATIONS

- Household entertainment sharing and control
- Lecture room display and control
- Showroom display and control
- Meeting room presentation and control
- Classroom display and control

## 3. PACKAGE CONTENTS

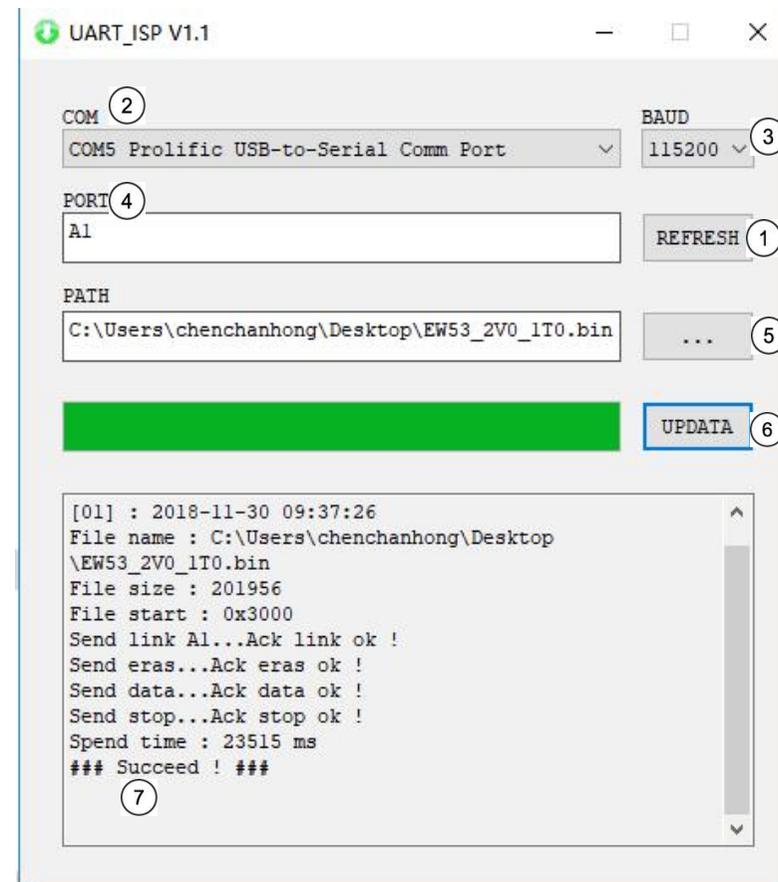
- ① Main unit Transmitter & Receiver
- ② Operating instructions
- ③ 1xIR TX Cable
- ④ 1xIR RX Cable
- ⑤ 24V1A DC power supply
- ⑥ 1x2 PIN Phoenix plugs for power
- ⑦ 1x5 PIN Phoenix plugs for IR cable termination
- ⑧ 2x3 PIN Phoenix plugs for RS232 cable termination

## 4. SYSTEM REQUIREMENTS

Input HDMI or VGA source equipment such as DVD/Blu-ray player/PC and HDMI equipped output display (TV or monitor).

## 9 Firmware Upgrade

The unit support upgrade the firmware on line if needed.

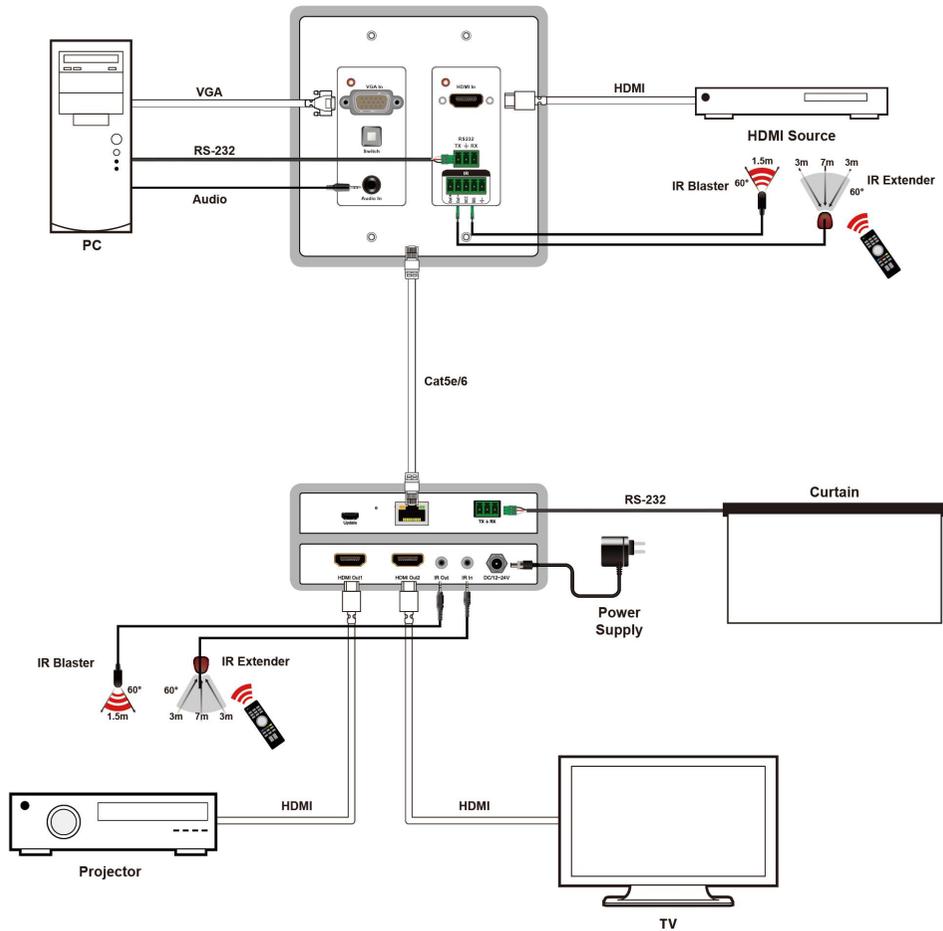


1. Connect the USB to RS232 cable, connect via the RS232 port at the back side, Double click UART.ISP.exe this upgrade tool.

2. Burn step:

- ① Click "REFRESH" Serial port
- ② Choose the port connect with the EW53
- ③ Set the baud rate at 115200
- ④ At the port side type A1, which mean upgrade the MCU program
- ⑤ Choose the MCU burn files in your PC
- ⑥ Click Update
- ⑦ Finish the upgrade

## 8. CONNECTION DIAGRAM



## 5. Features

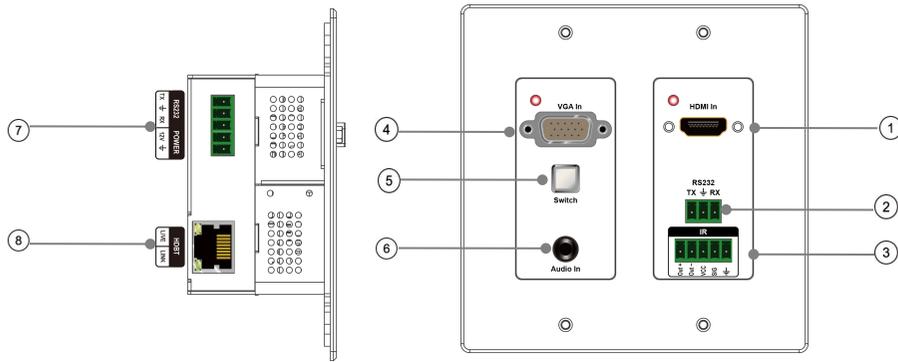
- Transmitter in North American standard Wall plate .
- Bandwidth up to 18Gbps, resolution up to 4k @60hz YUV 4:4:4, VGA resolution reach up to 1920\*1200.
- Support Dolby TruHD, DTS -HD Master Audio ,7.1 audio channel.
- Transmit up to 70m under 1080p, 40m under 4k
- Support HDR10, 3D
- Support VGA or HDMI in, Switch by the Switch button on the faceplate
- Bi-directional wide band IR (20-60KHZ)and RS232 Pass through
- Dual POC (Receiver powered by transmitter or transmitter powered by Receiver)
- HDCP2.2/ HDCP1.4 Compliant
- Support 2.0 Analog Audio embedded.

## 6. Specifications

Operating Temperature Range	-10 to +40°C (14 to +104 °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; 4K/1080P/1080i/720P(50HZ)/576P/480P/576i/480i,VGA resolution .
Output Video	HDMI 2.0+HDCP1.4/2.2
Output Audio	Support DTS-HD, Dolby-HD,71. channel. And support 2.0 analog audio in.
Maximum Transmission Distance	70 meters for 1080P, 40 meters for 4K
Power Supply	24V1A
Poc	Power from TX to RX over Cat5/6 cable
Power Consumption	16.5Watts
Dimensions	TX: 116mmH×115.5mmW×49.2mmD RX: 139.4mmH×66.8mmW×20mmD
Mass (Main unit)	Transmitter:260.6g ; Receiver:270g

## 7. OPERATION CONTROLS AND FUNCTIONS

### 7.1 Transmitter Front and Rear

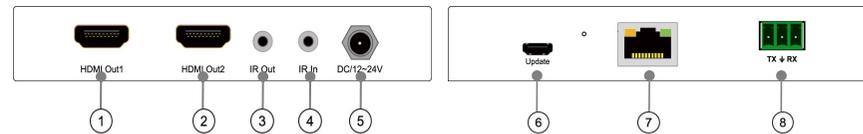


- ① **HDMI In:** Connect to HDMI source equipment such as DVD or Blu-ray player
  - ② **RS232 port:** Connect the RS232 device via the RS232 cable via the Phoenix plug.
  - ③ **IR In/out:** Connect to the supplied IR blaster cable for IR signal transmission. Place the IR blaster in direct line-of-sight of the equipment to be controlled.
  - ④ **VGA in:** Connect to VGA source equipment such as PC or other VGA device.
  - ⑤ **Switch Button:** Switch the VGA and HDMI source input.
- Note:** (When select HDMI source input, double press switch button to enter audio embedded mode, indicator light of HDMI on wallplate will be flickering.)
- ⑥ **Mini 3.5 Jack:** Support analog 2.0 audio embedded.
  - ⑦ **Power and RS232 port:** It support powered at the back side connect with the Power Phoenix plug. And the RS232 port is for the firmware upgrade.
  - ⑧ **CAT5e/6 Out:** Connect to the receiver unit with a single CAT5e/6 cable for transmission of all data signals

 **Warning:** Please pay attention to the power and RS232 Interface.

We must make sure the power and RS232 connection is correct, If not, the unit will be burned.

### 7.2 Receiver Front and Rear Panels



- ① **HDMI Out1:** Connect to a HDMI equipped TV/Monitor for display of the HDMI input source signal
- ② **HDMI out2:** Connect to a HDMI equipped TV/Monitor for display of the HDMI input source signal
- ③ **IR Out:** Connect to the supplied IR blaster cable for IR signal transmission. Place the IR blaster in direct line of sight of the equipment to be controlled
- ④ **IR In:** Connect to the supplied IR blaster cable for IR signal transmission. Place the IR blaster in direct line-of-sight of the equipment to be controlled.
- ⑤ **DC/12-24V:** Plug the 24V DC power supply into the unit and connect the adaptor to an AC outlet
- ⑥ **Update:** USB port to update the firmware
- ⑦ **CAT5e/6 In:** Connect to the transmitter unit with a single CAT5e/6 cable for transmission of all data signals
- ⑧ **RS232 Out:** Connect to the device that is to be controlled via phoenix terminal by RS-232 command