

HDMI 2.0 4K HDR 1x2 Splitter HDBaseT Extender with Auto-scaling

User Manual





P/N: CE-H24M11-S1



▲ Safety and Notice

The device has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, the device should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit.
- Always unplug the power to the device before cleaning.



Package contents

- HDMI 2.0 4K HDR 1x2 Splitter HDBaseT Extender
- Receiver x2
- Power adapter DC 12V / 3.3A
- IR blaster x1 / IR Receiver x2
- Terminal block x3
- Mounting kit
- User Manual



Thank You for your purchase!

Features

- HDMI 2.0a compliant
- Supports 4K2K@60 4:4:4 8bits
- Supports HDR which is 4K2K@60 4:2:0 10bits
- Extends HDMI signal up to 198ft from the HDMI source at Full HD 1080p 36-bit, 114ft at 4K2K@60 444 (4K-HDR Technology)
- Supports PoC(Power over Cable)
- Supports two HDMI loopout
- HDCP bypass
- Supports EDID management
- Supports resolution downscaling from 4K2K to 1080P
- Bi-directional IR pass-though
- Pure unaltered uncompressed 7.1ch digital HDMI over Cat.5/5e/6
- Supports 7.1 channel digital audio
- Supports full frequency IR signal from 30KHz to 56KHz
- RS-232 Pass-Thru: Up to 115,200bps
 - 1. NOT supports
 - (1) Resolution downscaling from 4K2K@60 4:2:2 to 1080P
 - (2) Frame rate conversion
 - (3) 4K2K@60 4:2:2 to 4K2K@60 4:2:0
 - Splitter can bypass 4K HDR data content, but can NOT process it and make HDR content 100% fit into 1080p
 - The length depends on the characteristics and quality of the cables. Higher resolutions and longer transmission distances require low skew cables (<25ns/100m) for best performance. Unshielded CAT6 with metal RJ45 connectors is recommended.



Layout

TX Front Panel 3 4 5

- 1. Power LED:
- 2. Micro-USB: For technical support only [firmware update]
- **3. HDMI Signal LED:** Input signal LED indicator (From the left side to the right is Loopout #1signal LED indicator and Loopout #2 signal LED indicator)
- 4. Link Receiver LED: Link LED indicator 1-2
- 5. HDMI Signal LED: Output signal LED indicator 1-2

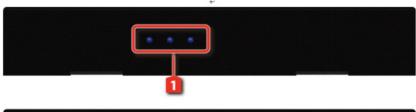
Rear Panel

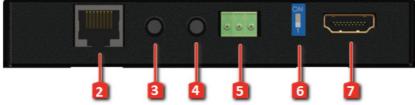


- 6. Power jack: Connect to the DC 12V/3.3A power supply unit
- 7. 2-PIN Dip Switch: For firmware update
- 8. EDID Management Rotary control:
- **9. RS-232(terminal block format):** The order of RS-232 pin are TX, RX, GND (from the left side to the right)
- 10. IR Blaster: Plugging in the extension cable of IR blaster
- 11. IR Receiver: Plugging in the extension cable of IR receiver
- 12. HDMI IN: Connect to a HDMI input source
- 13. HDMI LOOPOUT #1: Connect to a HDMI display
- 14. HDMI LOOPOUT #2: Connect to a HDMI display
- **15. HDMI Signal OUT1-2:** Link to each HDMI display via a Cat-5/5e/6 cable with a HDMI over Cat.X receiver.



RX Panel





- LED: Power LED, Link LED, Signal LED

 (1)Power LED: Power indicator LED
 (2)Link LED: Link indicator LED
 (3)Signal LED: When receiving unit receive the HDMI signal, the LED light will shine
- 2. **RJ45:** Plug in a Cat5e/6 cable that needs to be linked to the TX
- 3. IR Receiver: Plugging in the extension cable of IR receiver
- 4. IR Blaster: Plugging in the extension cable of IR blaster
- 5. **RS-232(terminal block format):** The order of RS-232 pin are TX, RX, GND (from the left side to the right)
- 6. Dip Switch: [ON] F/W update Mode; [OFF] Normal Mode
- 7. HDMI OUT: Connects to a HDMI display

NOTICE:

While connecting a new monitor to the splitter, experiencing a short period of time without display might be expected. The splitter will do Automatic EDID learning which analyzes the newly connected monitor to see if the EDID for the HDMI input is necessary to update!

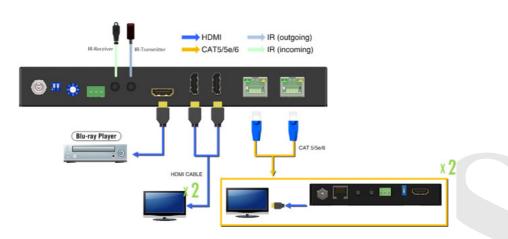


Dip Switch / EDID Switch

Position				Description
PIN#1	PIN#2	OFF[↑]	OFF[↑]	Working Mode & Input F/W Update
		OFF[1]	ON[↓]	Reserved
		ON[↓]	OFF[↑]	Output 1 F/W Update
		ON[↓]	ON[↓]	Output 2 F/W Update

MODE 0	Ultra HD(4K2K@60) – 8/10/12bit 3D HDR video & 7.1ch audio		
MODE 1	Ultra HD(4K2K@60) – 8/10/12bit 3D HDR video & 2ch audio		
MODE 2	Ultra HD(4K2K@30)(4K2K@60 420) – 8/10/12bit 3D HDR video & 7.1ch audio		
MODE 3	Ultra HD(4K2K@30)(4K2K@60 420) – 8/10/12bit 3D HDR video & 2ch audio		
MODE 4	Full-HD(1080p@60) – 12bit 3D video & 7.1ch audio		
MODE 5	Full HD(1080p@60) – 8bit 2D video & 2ch audio		
MODE 6	Learning EDID from loopout #1		
MODE 7	Auto EDID analysis learning mode*		

Application





Firmware update

System firmware update

- 1. Save the firmware file (.bin) & software in the same folder.
- 2. Please try to adjust dip switch [pin1, pin 2]=[\uparrow - \uparrow]
- 3. Connect the Micro-USB cable between PC and device
- 4. Open firmware update software and then device will start to update firmware automatically.
- 5. After update process is done, software will show "Success" message and then be closed automatically.
- 6. Power cycle the device

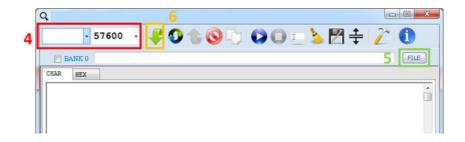
Firmware Update				
Initialization				





Output 1/2 firmware update

- 1. Please adjust dip switch [pin1, pin 2]= $[\downarrow-\uparrow]$ for output1, $[\downarrow-\downarrow]$ for output2
- 2. Connect the Micro-USB cable between PC and device
- 3. Open the firmware update software
- 4. Set the correct COM port and baud rate (57600 is recommended)
- 5. Click the FILE button to load firmware file (.hex or .bin file)
- 6. Device power on then press Program MCU symbol to do firmware update
- Once update process is done, please power cycle the device and set the dip switch [pin 1, pin 2] to [↑-↑]
- 8. Power cycle the device





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