

4K HDMI 1x4 Splitter/Extender over Cat6

MVE-AH1E4-42NQ

Installation Manual

HDMI®
HIGH DEFINITION MULTIMEDIA INTERFACE



The *ENFORCER* 4K HDMI 1x4 Splitter/Extender over Cat6 extends the range of traditional HDMI cabling methods by using an active transmitter and 4 receivers to send video and audio over Cat6. HDMI formats as large as 4K can be transmitted up to 230ft (70m) between the units with zero signal loss by using integrated circuits in the receivers and transmitter.

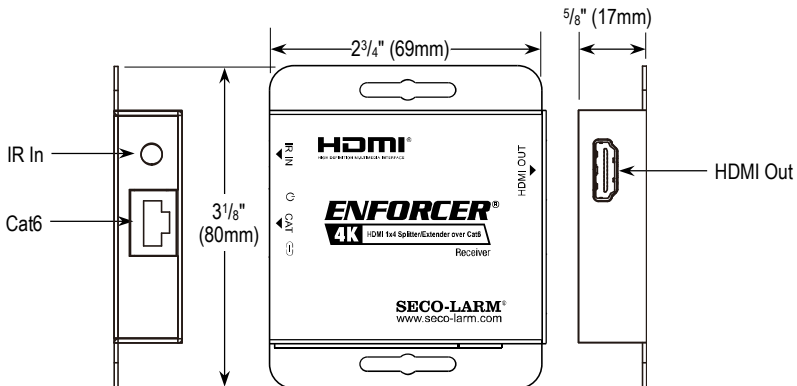
- **Signal Strength** – Active operation ensures signal strength remains strong over the entire cable length.
- **Distance** – The 4K HDMI 1x4 Splitter/Extender over Cat6 is capable of providing a clear HDMI signal up to 131ft (40m) at 4K resolution or 230ft (70m) at 1080p resolution.
- **Formats Supported** – The 4K HDMI 1x4 Splitter/Extender over Cat6 supports both progressive and interlaced formats: 4K@30Hz/1080p/1080i/720p/576p/480p/480i.
- **Plug and Play** – The 4K HDMI 1x4 Splitter/Extender over Cat6 comes as a complete set consisting of a transmitter and 4 receivers, power supply, and IR dongles.
- **Zero Signal Loss** – Integrated circuits in the transmitter and receivers clean, buffer, and amplify the HDMI signal to prevent signal loss and ensure a clear signal regardless of the length of the cable.
- **IR** – Send IR signals from the monitors to the source for discrete operation of devices.
- **Loop out** – Supports a local monitor.
- **Power** – One (1) 12VDC power supply included – set powered at transmitter end

Parts List

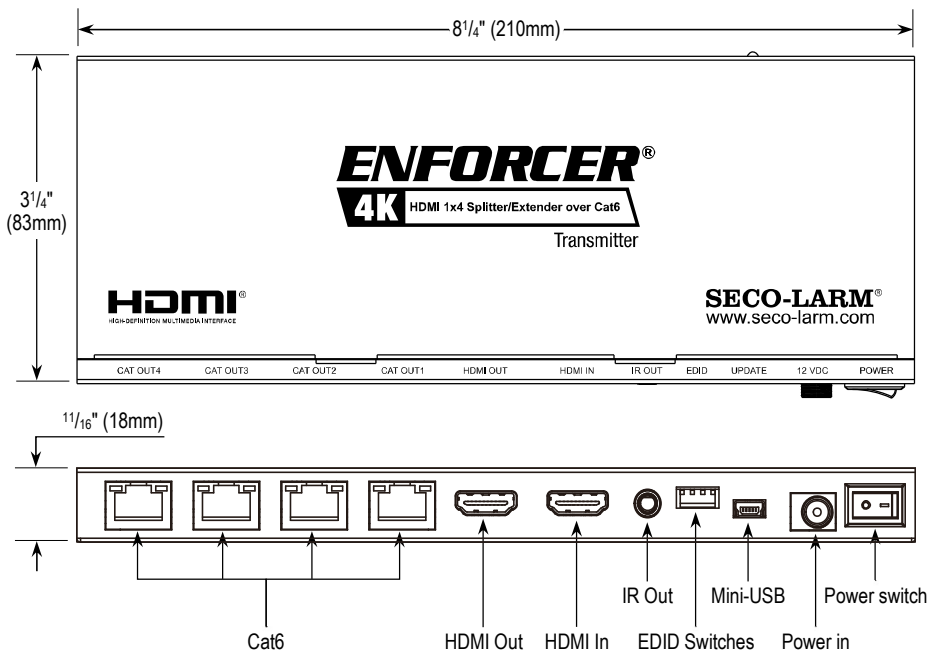
1x Transmitter 1x IR Transmitter (with mounting tape) 1x 12VDC Power adapter 2x Mounting ears
 4x Receivers 4x IR Receivers (with mounting tape) 8x Mounting screws 1x Manual

Specifications

Input video signal	3.3V	
Input DDC signal	5Vp-p (TTL)	
Maximum single link range	4K@30Hz	
Video formats supported	HDMI 2.0b, HDCP	
Audio formats supported	LPCM, Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS-ES, DTS HD Master, DTS HD-HRA, DTS-X	
Output video	Up to 4K@30Hz/2K@30Hz	
Resolutions supported	4K@30Hz/2K@30Hz/1080p/1080i/720p/576p/576i/480p/480i	
Range	Up to 131' (40m) at 4K@30Hz / Up to 230' (70m) at 1080p	
Video amplifier bandwidth	297MHz / 10.2Gbps	
Video input connector	HDMI Type A 19-pin female	
Video output connector	HDMI Type A 19-pin female	
Cat6 wiring standard	T-568B	
IR Pass-through frequency	30~60 kHz	
Operating voltage	12VDC	
Power supply	2.5A@12VDC (1 Adapter) (2.1mm plug)	
Operating temperature	32°~104° F (0°~40° C)	
Operating humidity	20~90% RH (non-condensing)	
Dimensions	Transmitter	8 ¹ / ₄ "x1 ¹ / ₁₆ "x3 ¹ / ₄ " (210x18x83 mm)
	Receivers	3 ¹ / ₈ "x5 ⁵ / ₈ "x2 ³ / ₄ " (80x17x69 mm)
Weight	Transmitter	15.8-oz (448g)
	Receivers	4.6-oz (130g) (each)

Overview - Receiver

Overview - Transmitter



Installation

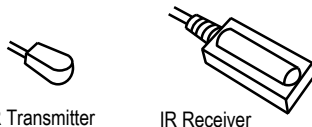
1. Determine the location where the MVE-AH1E4-42NQ units will be installed as well as how much Cat6 cable will be necessary.
2. Connect the transmitter to the HDMI output of the source device.
3. Connect the Cat6 cables to both the receiver and transmitter units.

NOTE: For maximum range use Cat6 cable.

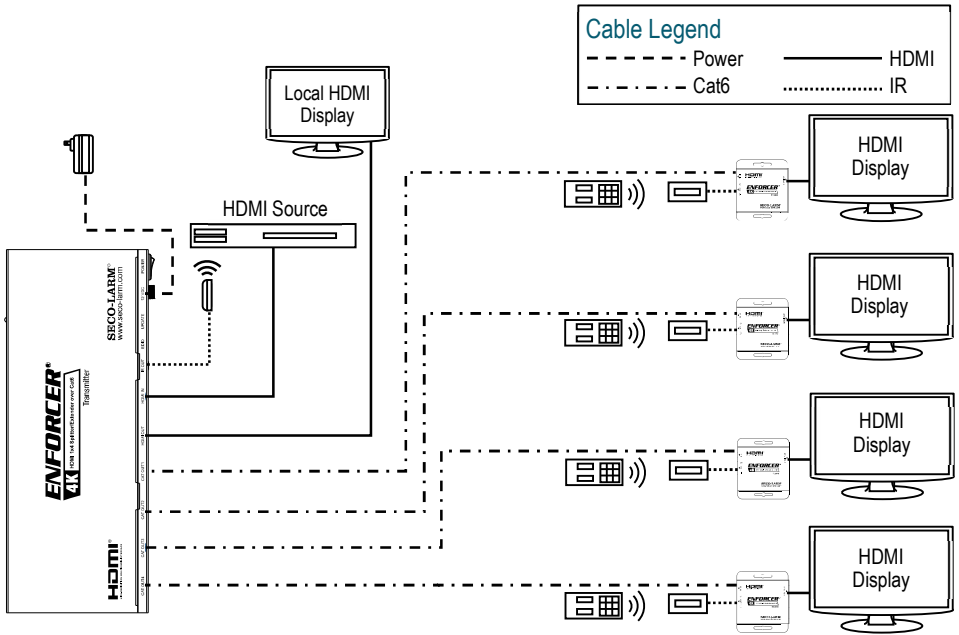
4. Connect the receiver to the HDMI input of the display device.
5. Connect the 12VDC adapter to the transmitter.
6. Determine which device, if any, will be controlled by the remote control. Install the IR transmitter to the IR Out port, pointing the IR transmitter at the device to be controlled. Install the IR receiver to the IR In port of the other device, pointing the IR receiver to where the remote control will be. Point the remote control at the IR receiver when in use.
7. Switch on the HDMI source and display to verify that the system is functioning properly.

IR

The MVE-AH1E4-42NQ supports IR pass-through signals. This allows for remote operation of the source device from the display location. The MVE-AH1E4-42NQ IR Transmitter unit and IR Receiver unit support signals from 30~60 kHz.



Sample Application



Troubleshooting

HDMI device does not function correctly

- Use T-568B wiring standard
- Make sure the extender is powered
- Make sure the source and the display are powered
- Test the Cat6 cable between the receiver and transmitter and make sure it is functional
- Make sure that there are no problems with the HDMI source, HDMI cables, or HDMI display by plugging the source directly into the display using an HDMI cable

Screen flickering or brief image loss

- Use a higher grade of twisted pair category cable (Cat6 is recommended)
- Switch the source device to a lower HDMI output (i.e., 4K@30Hz to 1080p)
- Restart the handshake process by powering everything down then powering up and connecting each device in succession starting with the HDMI source

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