

HDMI HD UHD Video Extender - # 15370



Operation Manual

Introduction

The HDMI 4K UHD Enhancer is an advanced solution for extending or cascading an HDMI signal. It is designed to amplify and equalize the signal to provide high performance transfer of audio and video through HDMI cable for distance up to 10 meters at 4K2K@60Hz (YUV420) and can be cascaded up to 5 layers and is capable of receiving and transmitting up to 3Gbps bandwidth rate with CDR (Clock Data Recovery) to ensure no loss of data. This unit can be powered by the HDMI output of suitability equipped source device (eliminating the need for a power supply) or an HDMI Power Inserter can be used.

Applications

- Custom installation usage
- Cascade an HDMI signal
- Extend the operating distance of an HDMI system

Features

- HDMI, HDCP 2.2 and DVI 1.1 compliant
- Built-in TMDS equalization and CDR (Clock Data Recovery) for extending operating distances over HDMI cables
- Supports resolutions up to 4K2K@50/60 (YUV420) and 21:9 aspect ratio
- Supports HDMI input or output cable lengths up to 10 meters at 4K2K@50/60 (YUV420) resolution
- Supports cascading of the HDMI signal to up to 5 layers
- Requires the HDMI source device to output power to the unit over HDMI cable
- Compact design

Note:

- 1. Testing was done with 24AWG HDMI cable, results may vary when used with different source devices or different specification cable and may affect overall cable distance and cascadable layers.*
- 2. For HDMI source devices that do not support Power over Cable (PoC) an HDMI Power Inserter unit can be used in-line between the source device and the HDMI Enhancer unit.*

System

Requirements

HDMI source device and HDMI equipped output display (TV/monitor) with HDMI connection cables.



Operation Controls and Functions



1. HDMI IN

Connect the HDMI input to the HDMI output of an source device such as a Blu-ray player or an HDMI Matrix/Splitter/Switcher. The unit can be directly powered by compatible HDMI source devices that provide power through the HDMI cable or can be powered by an HDMI Power Inserter placed in-line between the source and the unit.

2. HDMI OUT

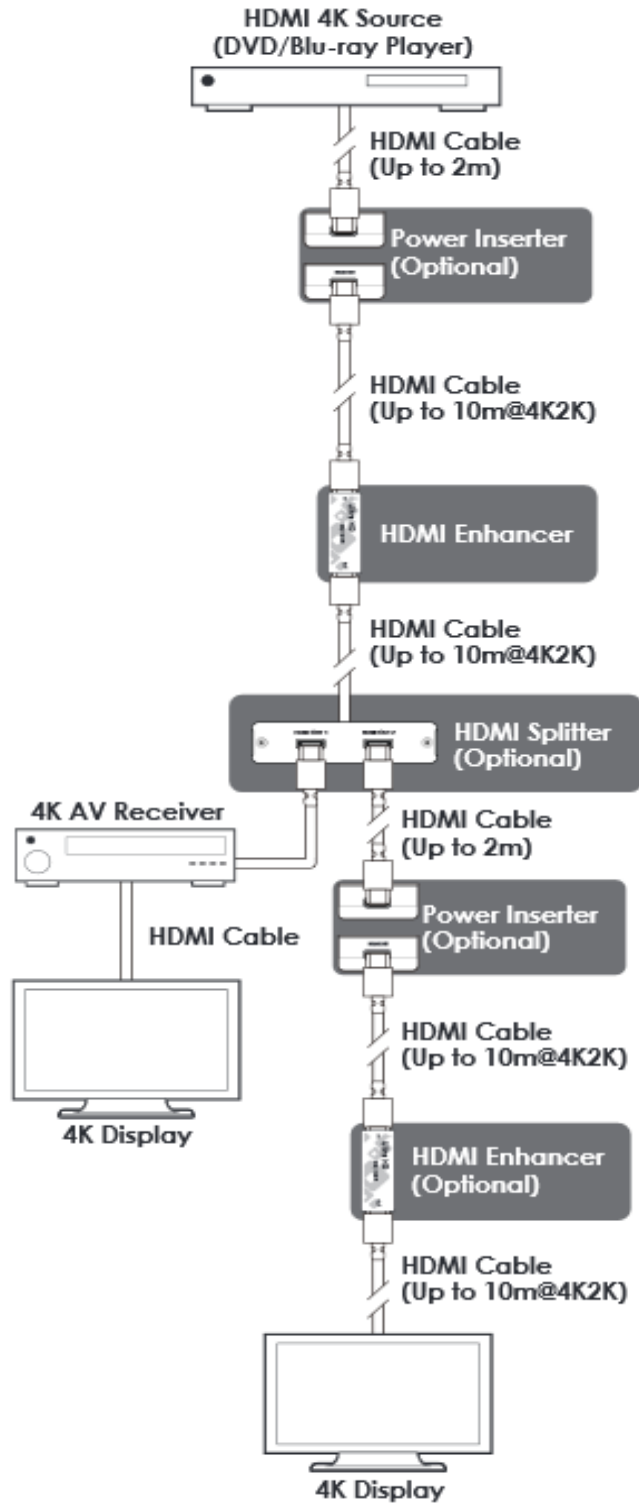
Connect the HDMI output to the HDMI input of an HDMI equipped display (TV/monitor) or an HDMI Transmitter.

Note: Multiple HDMI Enhancer units may be used (up to 5 layers) to cascade the signal over longer distances. Additional HDMI Power Inserter units will be required. It is recommended that an HDMI Power Inserter unit is used between the first and the second HDMI Enhancer units being used and on the last/5th layer before the connector to TV or monitor/final HDMI equipped display.

Specifications

| | |
|-----------------------|---|
| Video Bandwidth | 340MHz/10.2Gbps |
| Input Port | 1×HDMI |
| Output Port | 1×HDMI |
| Resolution | PC: VGA~WUXGA (RB) HDTV: 480i~4K2K@24/25/30 & 4K2K@50/60 (YUV420) |
| Cable Distance | 10m@4K2K 15m@1080p/8-bit or 12-bit |
| ESD Protection | Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge) |
| Dimensions | 65mm(W)×24mm(D)×9.5mm(H) |
| Weight | 14g |
| Chassis Material | Plastic |
| 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 (non-condensing) |
| Power Consumption | 0.75W (Max) |

Connection Diagram



Supported Resolutions

| Resolution | Input | Output |
|---------------------------|-------|--------|
| 640×480@60/72/75/85 | √ | √ |
| 800×600@56/60/72/75/85 | √ | √ |
| 1024×768@60/70/75/85 | √ | √ |
| 1280×720@60 | √ | √ |
| 1280×1024@60 | √ | √ |
| 1600×1200@60 | √ | √ |
| 1920×1200@60RB | √ | √ |
| 3840×2160p@24/25/30 | √ | √ |
| 4096×2160p@24 | √ | √ |
| 4096×2160p@50/60 (YUV420) | √ | √ |
| 480i/576i | √ | √ |
| 480p/576p | √ | √ |
| 720p@50/60 | √ | √ |
| 1080i@50/60 | √ | √ |
| 1080p@50/60 | √ | √ |
| 1080p@24/25/30 | √ | √ |