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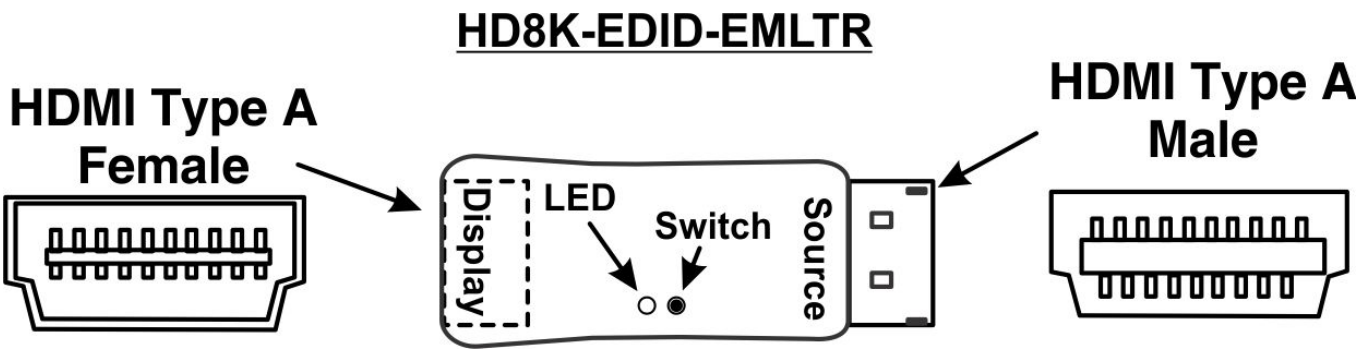
HD8K-EDID-EMLTR

HDMI 2.1 EDID Emulator

The HDMI 2.1EDID Emulator stores and reproduces EDID information for an HDMI display, and resolves video communication problems that occur between an HDMI video source and display. It is designed for systems that require EDID signals to be continuously provided without interruption, and ensures that the EDID signal is not lost when using AV/KVM switches, extenders and splitters. Additionally, the emulator can be used in place of a monitor to keep the graphics card of a PC or server awake for remote access over IP.

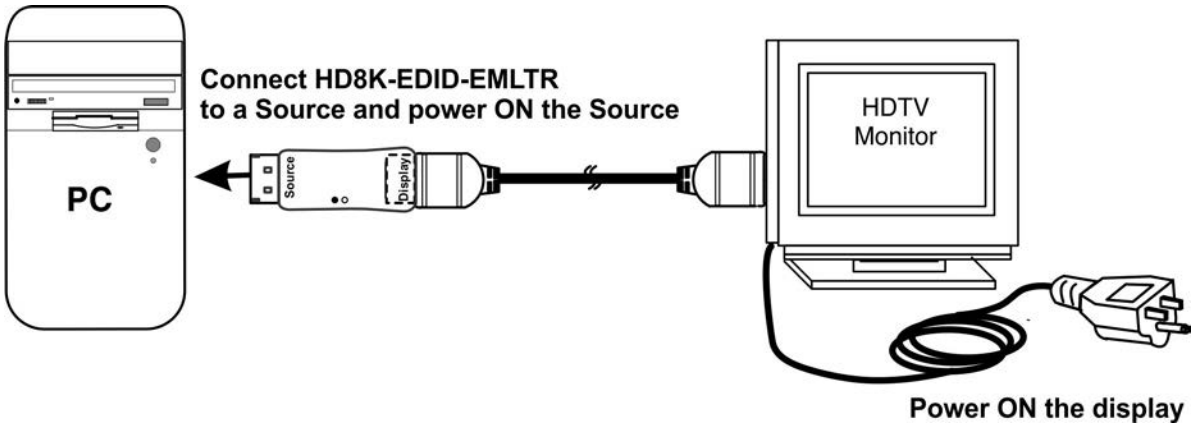
- Emulates an HDMI display (sink device) by providing Hot Plug Detect and EDID to the HDMI source device.
- Supports Ultra-HD 8K resolutions to 7680x4320 @60Hz YUV 4:4:4, UHD 4Kx2K resolutions to 3840x2160 @120Hz 4:4:4, 2560x1440 (WQHD), HDTV resolutions to 1080p and up to 1920 x 1200 (WUXGA).
- HDMI features supported:
    - HDMI v2.1
    - 16-bit deep color
    - HDR Pass-through
    - LPCM 2-channel
    - YCbCr 4:4:4, YCbCr 4:2:2, and RGB
    - 3D
    - HDR
    - Bandwidth up to 42.6 Gbps
- HDCP 1.4 and 2.2 compliant.
- Supports Learning and Emulation modes.
    - Learning mode: store a display's EDID for later use.
    - Emulation mode: provides EDID to the HDMI source device from the emulator's internal memory.
        - **Supports headless operation – no monitor attached to source.**
            - Ideal for remote desktop access to a headless computer, virtual desktop on VR headsets, and for use with GPGPU tasks such as cryptocurrency mining.
- Pre-programmed with many standard resolutions with native set to 1080p.
    - Use learning mode to program other resolutions.
- LED indicator turns ON when running with a learned resolution.
- Compact design for easy installation and operation.
- No power supply – powered by video source.
- Use for resolving signal handshaking problems between a source and a display.

Features

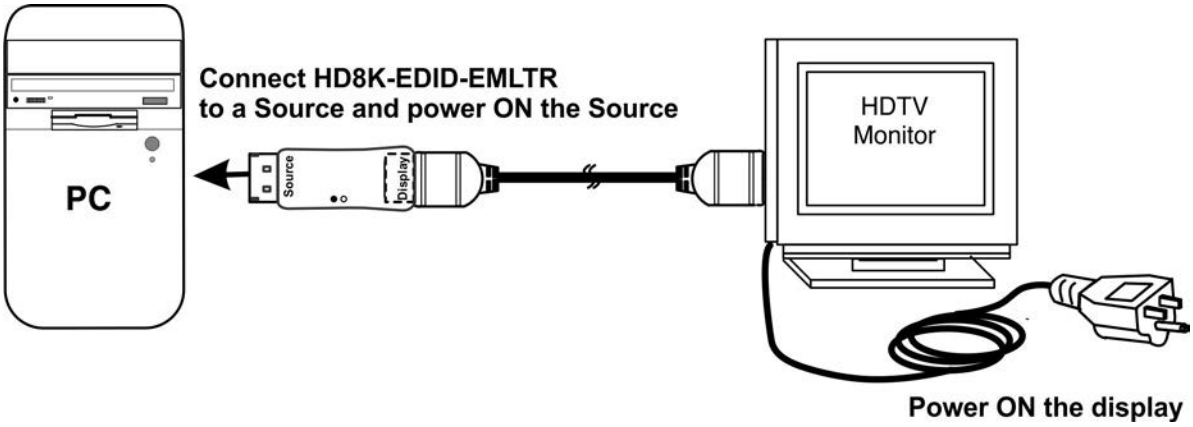


Learning Mode

1. Connect a HDMI cable between the emulator (at "Display") and the display device and power ON the display device.



2. Plug the HDMI male ("Source") connector of the HD8K-EDID-EMLTR emulator into the video source. Power ON the video source (if not already ON).



3. Press "Copy" button on the HD8K-EDID-EMLTR. The Blue EDID LED will illuminate solid when the EDID has been learned.

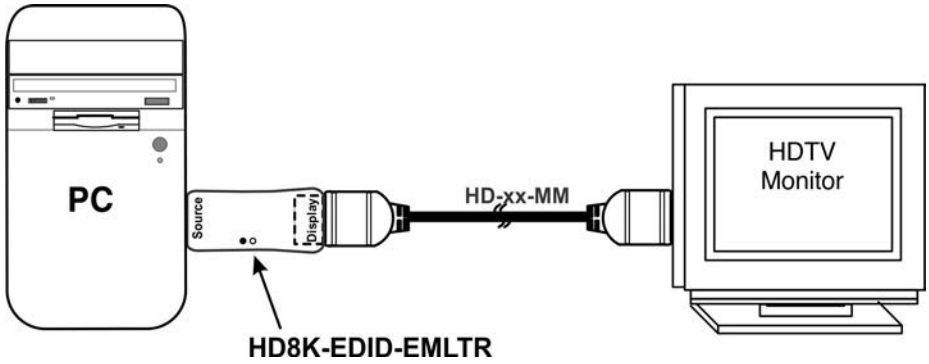
Note: While teaching the emulator, the monitor may or may not display video. As long as the video shows up after step 3, the teaching step is successful.

Note: If the emulator needs to be reset back to its default EDID resolution of 1920x1080p, with the HD8K-EDID-EMLTR plugged into a source and with no monitor connected, press the "Copy" button.

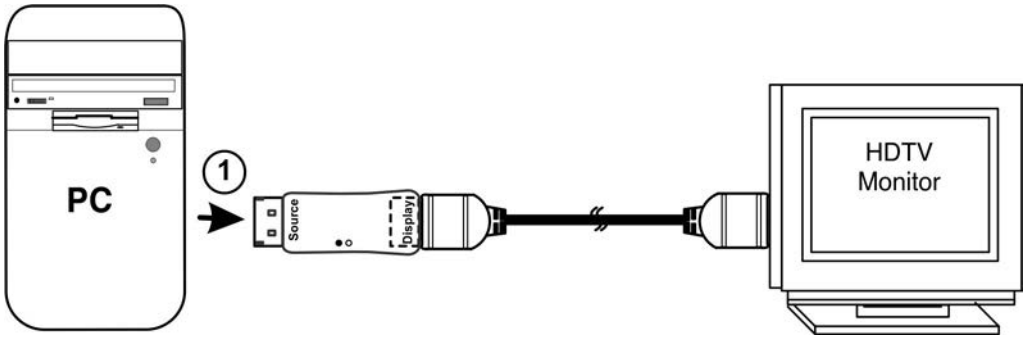
The EDID table copied during the Learning Mode will be available to provide the desired resolution to your monitor(s). **Note: Make sure your monitor is capable of displaying the selected resolution.**

Connect to Your Application

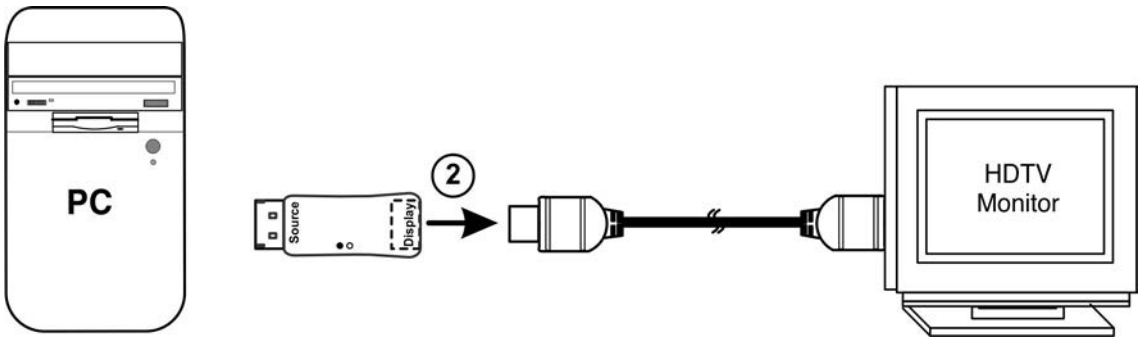
Once the emulator has learned the EDID table and is in Emulation Mode, the emulator can be placed in its ultimate configuration, following these steps, in order.



1. Unplug the emulator from the video source.

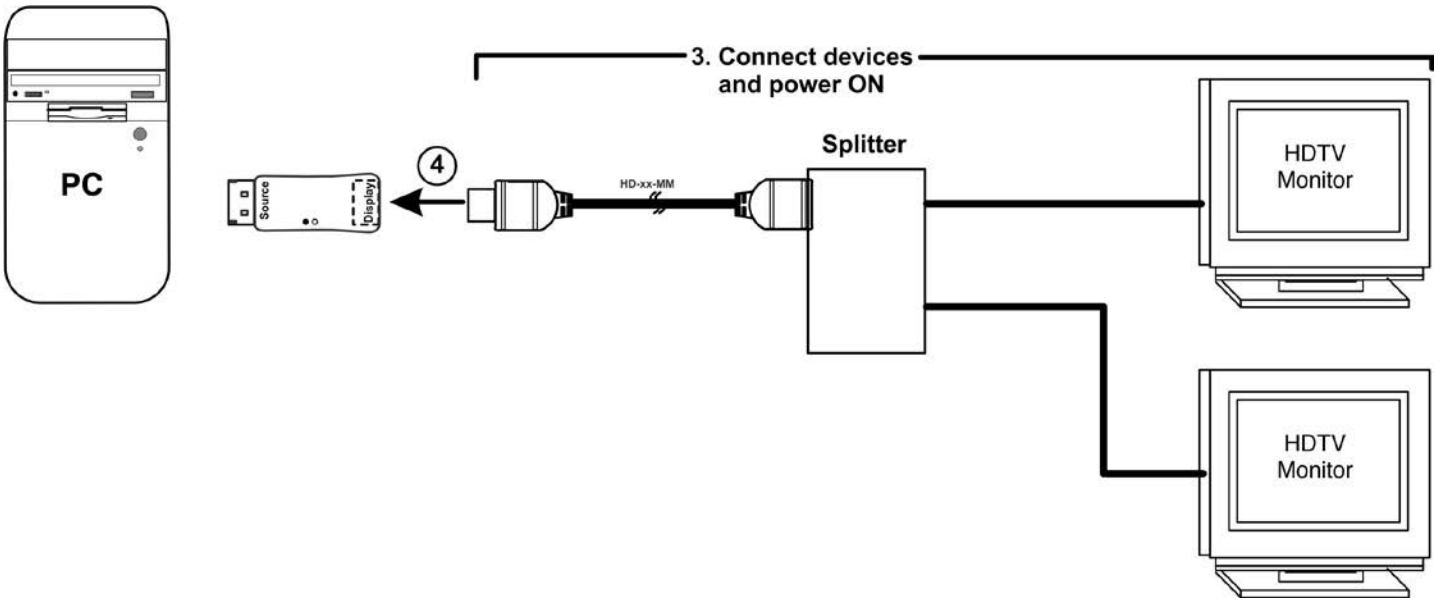


2. Unplug the cable from the "Display" port going to the monitor.

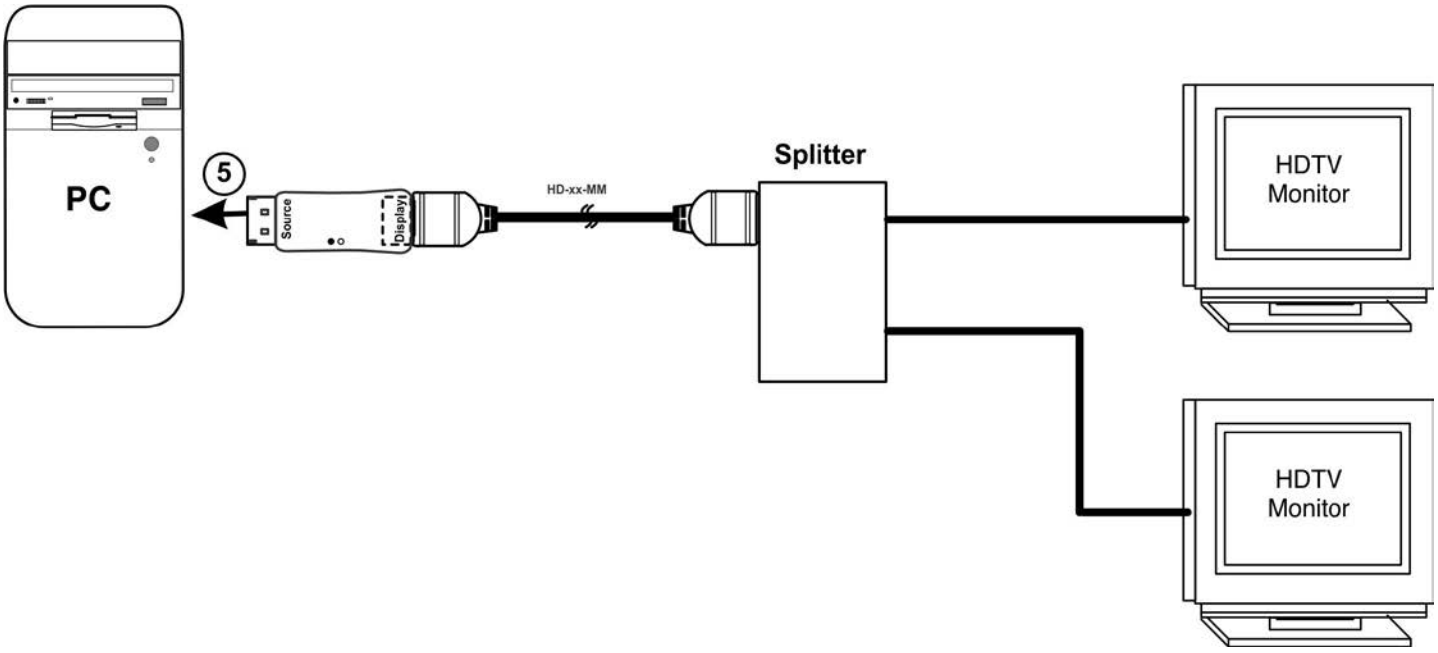


3. Make your connections from the HDMI cable to the display, splitter or extender and power the splitter or extender and associated display(s) ON.

4. Plug the HDMI cable back into the "Display" port on the emulator.



5. Plug the emulator back into the video source.



Headless Operation Support

You can use the HD8K-EDID-EMLTR as an HDMI headless emulator by fooling the PC into thinking there is an active monitor connected when:

(a) the monitor is actually powered OFF / in sleep mode / disconnected OR

(b) the PC is deselected by an HDMI Switch.

Note: If the emulator is running at its default resolution (1920 x 1080p), the LED will be OFF. If it is running at a learned resolution, the LED will be ON, whether it is connected to a monitor or not.

If an EDID has been learned and the emulator has been unplugged, once it is plugged back in to the PC the indicator will illuminate again.

Specifications

Video Format	HDMI V2.1
Max. Resolution	7680x4320@60Hz (see chart below)
Default Resolution	1920x1080p@60Hz
Color Depth	RGB/YCC 4:4:4 / YCC 4:2:2 Up to 16-bit deep color
Support pass-through	Yes
Support headless (no monitor actually attached)	Yes
HDCP Support	HDCP 1.4/2.2
Audio Format	Stereo, 5.1 & 7.1, LPCM, Dolby, DTS
Power Supply	By video source
Operating Temperature	32 to 122°F (0 to 50°C)
Storage Temperature	-4 to 176°F (-20 to 80°C)
Operating and Storage Relative Humidity	5 to 85% non-condensing RH
Dimension WxDxH	0.94 x 1.74 x 0.47 in (24x44x12 mm)
Compliance	CE, FCC, RoHS, TAA

EDID mode resolutions

Resolution	Resolution	Resolution
640 x480p @60Hz	1600 x 900 @50/60Hz	3840 x 2160p @120Hz
720 x 480p @60Hz	1680 x 1050 @50/60Hz	7680 x 4320 @30Hz
800 x 600p @60Hz	1920 x 1080p @60Hz*	7680 x 4320 @60Hz
1024 x 768p @60Hz	2560 x 1440p 60Hz	
1280 x 720p @60Hz	2560 x 1600p @60Hz	
1280 x 800p @60Hz	3440 x 1440p @60Hz	
1280 x 960p @60Hz	3440 x 1440p @75Hz	
1280 x 1024p @60Hz	3440 x 1440p @100Hz	
1400 x 1050 @50/60Hz	3840 x 2160p @30Hz	
1440 900p @50/60Hz	3840 x 2160p @60Hz	

***1920 x 1080p @60Hz is the native resolution in EDID mode**

Audio EDID
LPCM 2-channel, 16/20/24 bit depths at 32/44/48/88/96/176/192 kHz