

DP4K-EDID-EMLTR

DisplayPort 1.2 EDID Emulator



The DP4K-EDID-EMLTR DisplayPort 1.2 EDID Emulator copies the EDID of the desired DisplayPort display and connects directly to the DisplayPort source to ensure that the EDID is not lost in connections between devices such as splitters and extenders.

Note: The DP4K-EDID-EMLTR is not recommended for use with KVM or Video-only switches.

- Emulates a DisplayPort display (sink device) by providing Hot Plug Detect and EDID to the DisplayPort source device.
- Supports Ultra-HD 4Kx2K resolutions up to 3840x2160 @60Hz 4:4:4, 2560x1600 (WQXGA), 2560x1440p (WQHD), and HDTV resolutions to 1080p @144Hz.
- DisplayPort features supported:
 - DisplayPort v1.2a
 - 10-bit Color / 30-bit Deep Color
 - RGB, YCC 4:4:4, YCC 4:2:2
 - LPCM
 - Bandwidth up to 5.4Gbps per channel (21.6Gbps total)
- HDCP 1.3 compliant.
- Supports Learning and Emulation modes.
 - Learning mode: store a display's EDID for later use.
 - Emulation mode: provides EDID to the DisplayPort source device from the emulator's internal memory.
 - Does not support headless operation – monitor must be connected.
- Pre-programmed with many standard resolutions with native set to 1080p @60Hz.
 - Use learning mode to program other resolutions.
- LED indicators provide signal status information.
- Compact design for easy installation and operation.
- No power supply – powered by video source.
- Ideal for resolving signal handshaking problems between a source and a display.

Installation

Teach the Emulator

1. Switch the EDID/COPY switch on the emulator to "COPY".

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

3. Plug the DisplayPort male ("Source") connector of the DP4K-EDID-EMLTR emulator into the video source. Power ON the video source (if not already ON).

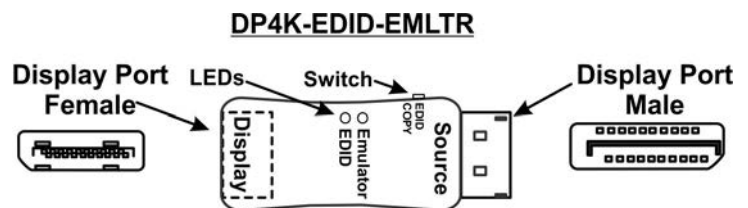
4. Unplug the DisplayPort cable from the emulator, causing the blue "EDID" LED to flash. This indicates the emulator is in Learning Mode.

Note: While teaching the emulator, the monitor may or may not display video. As long as the video shows up after the step 5, the teaching step is successful.

5. Within 10 seconds, plug the DisplayPort cable back into the emulator. The blue "EDID" LED should change to solid ON, indicating that Learning Mode has been successful and the emulator is now in Emulation Mode. Video should be displayed.

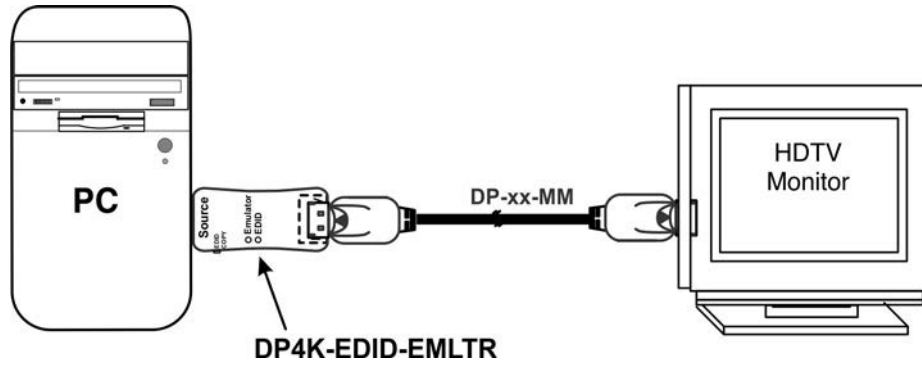
Note: If the emulator needs to be reset back to its default EDID resolution of 1920x1080p, switch the EDID/COPY switch to "EDID".

If the DisplayPort cable is unplugged during Learning Mode or the 10 seconds is allowed to elapse, Learning Mode will fail and both LEDs will go dark. The emulator will remain at the last EDID it learned.

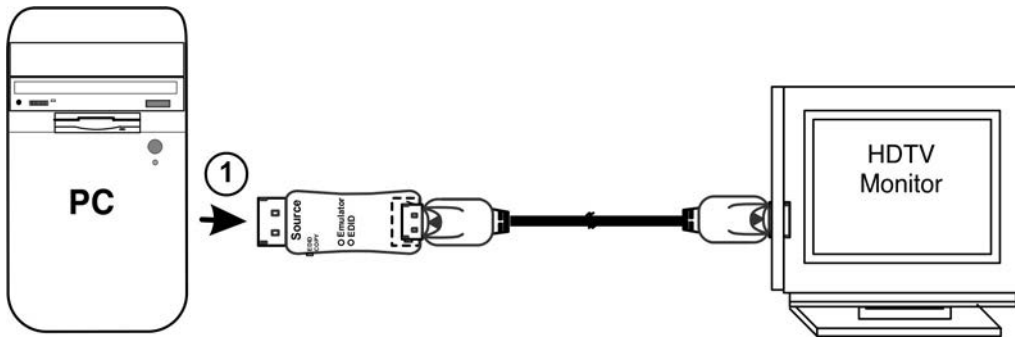


Connect to Your Application

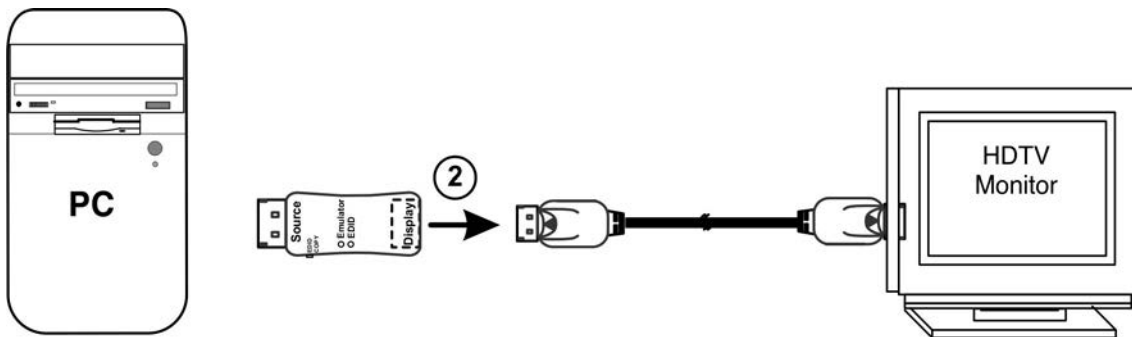
Once the emulator has learned the EDID table and is in Emulation Mode, the emulator can be placed in its ultimate configuration, following these steps, in order.



1. Unplug the emulator from the video source.

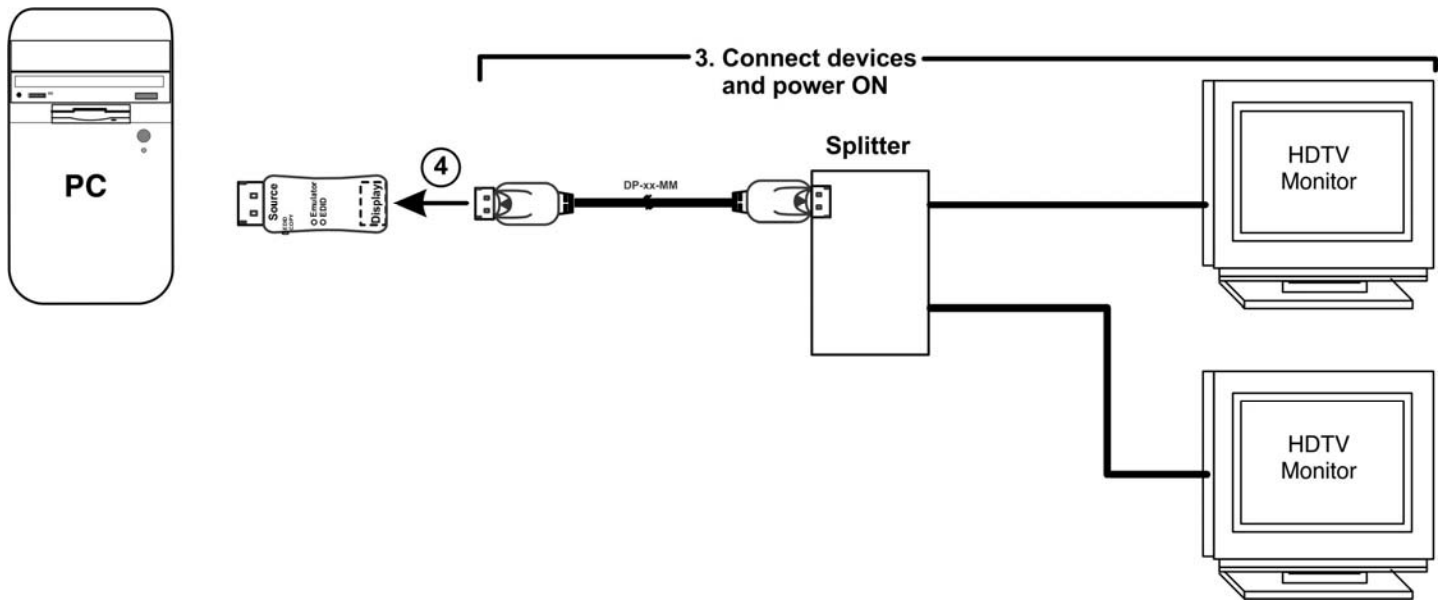


2. Unplug the cable from the "Display" port going to the monitor.

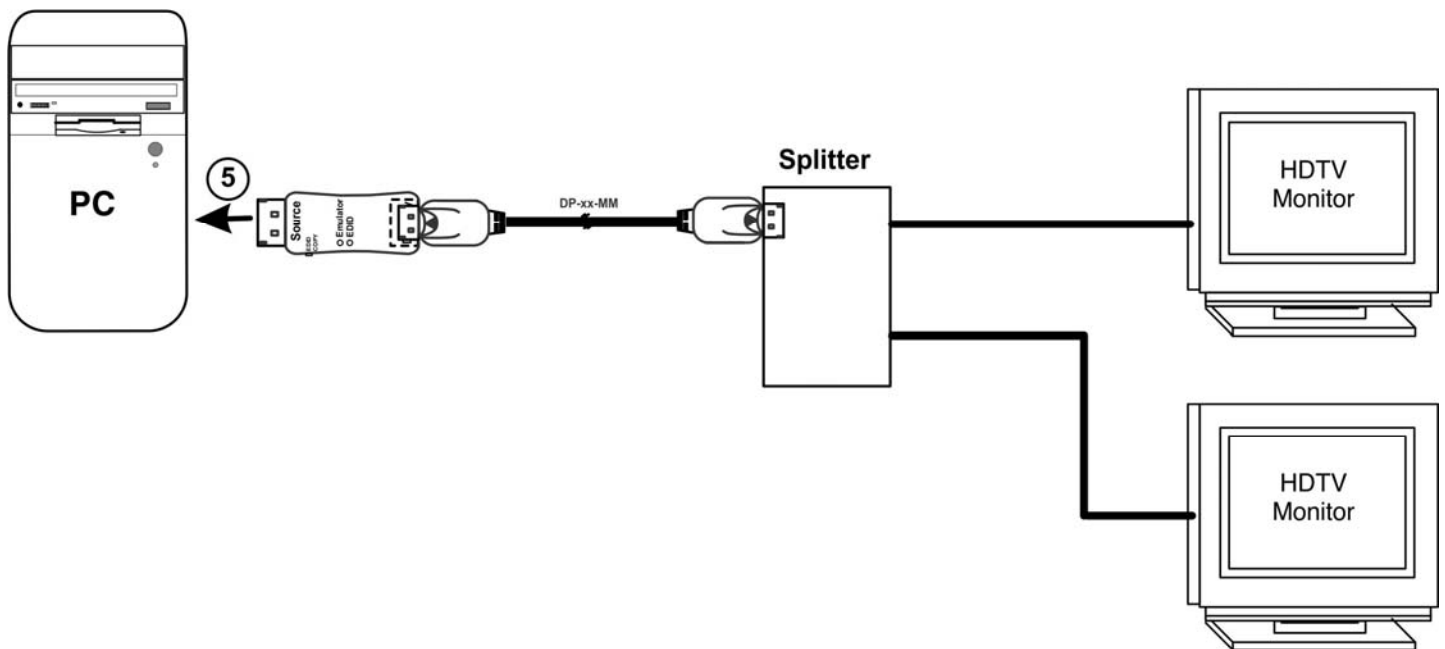


3. Make your connections from the DisplayPort cable to the display, splitter or extender and power the splitter or extender and associated display(s) ON.

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



5. Plug the emulator back into the video source.



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.**

Note: The DP4K-EDID-EMLTR is not recommended for use with KVM or Video-only switches. Using it with a KVM or Video-only switch will cause the emulator to go into learning mode and/or cause your display organization of applications and files to be re-arranged each time the video input on the switch is moved to another input and then back again.

Specifications

Video Format	DP 1.2
Max. Resolution	3840x2160p@60Hz
Default Resolution	1920x1080p@60Hz
Color Depth	RGB/YCC444/YCC422: 16-bit
Support pass-through	Yes
Support headless (no monitor actually attached)	No
HDCP Support	HDCP 1.3
Audio Format	LPCM
Power Supply	By video source
Operating Temperature	0 to 50°C
Dimension	2.835 x 0.4724 x 1.1811 in
	72 x 12 x 30 mm
Compliance	CE, FCC, RoHS

EDID mode resolutions

Resolution	Resolution
640 x 480p @60Hz	1440 x 900p @60Hz
720 x 480p @60Hz	1680 x 1050p @60Hz
800 x 600p @60Hz	1920 x 1080p @60Hz *
1024 x 768p @60Hz	2560 x 1440p @60Hz
1280 x 720p @60Hz	2560 x 1600p @60Hz
1280 x 800p @60Hz	3840 x 2160p @30Hz
1280 x 960p @60Hz	3840 x 2160p @60Hz
1280 x 1024p @60Hz	

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

Note: 8K (7680x4320) resolution is not supported.

Audio EDID

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