

HDMI Splitter 4K User’s Manual

4. Operation

The quality of the output signal depends on the quality of video source, cable, and display device used. Low-quality cables degrade output signals causing elevated noise levels. Use the proper cable and make sure the display device can handle the resolution and refresh rate selected. Interference from nearby electrical devices can adversely affect signal quality.

Table 4-1. LED indicator functions.

LEDs 1, 2, 3, or 4	Status
Flashing green	Power ON to Port 1, 2, 3, or 4
Steady green	Port 1, 2, 3, or 4 is outputting the data

5. Troubleshooting

Symptom: Video does not display

Possible Cause: Wrong installation process.

Solution: The video splitter requires at least one monitor connection before powering on the source device.

Symptom: Erratic behavior

Possible Cause: Splitter may not receive enough power.

Solution: Check the power adapter attached to the splitter to make sure it matches the system specifications, and is functioning properly.

Symptom: Not receiving picture.

Possible Cause: The signal source may require a display device that is HDCP compliant.

Solution: Check if the display monitor is HDCP compliant. HDCP prevents the transfer of digital content to unauthorized HDMI devices.

Possible Cause: The display monitor is added to the unit by hot-plug, but the video source may not support hot-plug.

Solution: Check if the video source supports hot-plug. If it doesn't, shut down the source device and reboot it again.

Possible Cause: The attached devices are not connected properly.

Solution: Check if you connected your components correctly.

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vsp-hdmi1x4-4k_rev1



1. Specifications

Enclosure	Metal
TMD5 Clock Rate	300 MHz
Video Resolution (Maximum)	4K x 2K (3840x 2160); Full HD 1080p (1920 x 1080)
User Controls	(1) EDID Copy button
Connectors	Input: (1) HDMI female, Output: (4) HDMI female
Indicators	(1) Power Input Status LED; (4) Video Output LEDs
Power	Consumption: 9–12 VDC, 130 mA
Dimensions	1.6"H x 8.6"W x 5.1"D (4.2 x 21.8 x 13 cm)
Weight	0.627 lb. (0.285 kg)

NOTE: The splitter is not 4K compatible when using Intel® HD 4400 based services.

2. Overview
2.1 Introduction

The 1 x 4 HDMI Splitter 4K distributes HDMI video out to four displays. It supports up to 4K (UHD) resolutions (3840 x 2160). Advanced EDID functionality enables the splitter to read and/or copy EDID information automatically or manually to compatible screens. The splitter can also be daisychained to support additional displays.

- 2.2 Features
- Duplicates one video input to multiple HDMI outputs.
 - Unique EDID Copy function provides maximum display compatibility.
 - Learns Video EDID for system integration.
 - Automatic power-save for when signal input is lost.
 - Cascaded operation for increased signal outputs.

- Provides crisp clear video images.
- Supports EDID and HDCP, and is Blu-ray ready for high definition display.
- Supports HDMI display resolutions of up to UXGA (1600 x 1200), WUXGA (1920 x 1200), Full HD 1080p (1920 x 1080), UHD (3840 x 2160).
- Includes LED indicators for signal activity monitoring.
- Enables accurate and reliable reproduction of digital video signals without attenuation and distortion.
- Installs in seconds.

2.3 What’s Included

- 1 x 4 HDMI Splitter 4K
 - Power adapter with necessary AC cord or plug-in power adapter
 - This user’s manual
 - (1) set of foot pads
- Optional:
- Locking HDMI Cables

2.4 Hardware Description

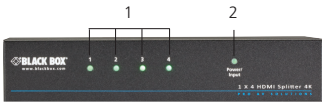


Figure 2-1. Top panel.



Figure 2-2. Back panel.

Table 2-1. Components on the splitter.

No. in Fig. 2-1 and 2-2	Component	Description
1	LED indicators	(4) Video Output LEDs
2	LED indicator	(1) Power Input Status LED
3	Power supply connector	Apply power from the power supply to the unit
4	Video input port	Connects to a video source
5	(4) Video output ports	Connect to monitors
6	EDID COPY Button	Copy the monitor’s EDID (See EDID Configuration)

NOTE: The splitter is not 4K compatible when using Intel® HD 4400 based services.

3. Installation

3.1 Installing the Splitter

- Before installation, power off all devices that will be connected to this system.
- Make sure that all devices you will connect are properly grounded.
- Place cables away from fluorescent lights, air conditioners, and machines that are likely to generate electrical noise.

You will need one HDMI male-to-male cable to connect a video source to the video splitter’s input port. Connect multiple monitors or TVs to the video splitter’s output ports.

- Turn on your video source only after you’ve made all the connections.
- NOTES:
1. The splitter unit is HDCP compliant and required to use an HDCP compliant display when it is connecting to the HDCP video source.
 2. Each output port on the splitter must apply the same connection pattern when a DVI-to-HDMI (or HDMI-to-DVI) adapter is used for HDMI (or DVI) signal conversion between the splitter and the HDMI (or DVI) display. Mixed (HDMI and DVI) output connections may cause signal degradation.

3.2 EDID Configuration

Incorrect EDID communication between the display monitor and the PC graphics card or insufficient EDID data programmed by display manufacturers may cause problems. The splitter provides many ways to read EDID information from the attached video display and then provides it at all times to the attached video source. If no new EDID information is available from a display, the splitter automatically uses a default profile.

To efficiently achieve EDID communication when the video source is booting up, configure the EDID on the splitter before operation.

3.2.1 EDID Copy

- Step 1.** Connect the monitor (EDID compliant) to the video output Port 1 on the splitter and power on the monitor.
- Step 2.** Press the “EDID COPY” button, then release it RIGHT AFTER the LED flashes GREEN (about 3 seconds).
- Step 3.** The LED returns to normal status indicating that EDID copy is completed.

- Otherwise, if the Status LED flashes RED, it means that:
- a. The monitor is not properly connected.
 - b. The monitor is not powered on.
 - c. EDID data of the monitor is not applicable.

3.2.2 EDID Factory Default Setting

- To set the EDID copy to factory default:
- Step 1.** Press the “EDID COPY” button, then release it RIGHT AFTER the Status LED flashes PALE BLUE twice (about 9 seconds).
- Step 2.** The Status LED returns to normal status indicating that EDID copy is completed.