

BLACKBIRD™

4K Pro 1x2 Ultra Slim HDMI® Splitter



P/N 21612

User's Manual

SAFETY WARNINGS AND GUIDELINES

Please read this entire manual before using this device, paying extra attention to these safety warnings and guidelines. Please keep this manual in a safe place for future reference.

- This device is intended for indoor use only.
- Do not expose this device to water or moisture of any kind. Do not place drinks or other containers with moisture on or near the device. If moisture does get in or on the device, immediately remove it from its power source and allow it to fully dry before reapplying power.
- Do not touch the device, the power cord, or any other connected cables with wet hands.
- Do not expose this device to excessive vibration, extreme force, shock, or fluctuations in temperature or humidity.
- Do not expose this device to excessively high temperatures. Do not place it in, on, or near a heat source, such as a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.
- Prior to operation, check the unit and power cord for physical damage. Do not use if physical damage has occurred.
- Before plugging the unit into a power outlet, ensure that the outlet provides the same type and level of power required by the device.
- Unplug this device from the power source when not in use.
- Take care to prevent damage to the power cord. Do not allow it to become crimped, pinched, walked on, or become tangled with other cords. Ensure that the power cord does not present a tripping hazard.
- Never unplug the unit by pulling on the power cord. Always grasp the connector head or adapter body.

- Ensure that power is turned off and disconnected before making any electrical connections.
- Clean using a soft, dry cloth only. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.
- This device has no user serviceable parts. Do not attempt to open, service, or modify this device.

INTRODUCTION

This Blackbird™ 4K Pro 1x2 Ultra Slim HDMI® Splitter allows you to distribute a single HDMI signal to two displays. It is compliant with the HDMI 2.0 and HDCP™ 2.3 standards and delivers up to 18Gbps of bandwidth. It supports video resolutions up to 4K@60Hz with the YCbCr 4:4:4 color space, including all 3D modes, and can automatically downscale 4K video for use with 1080p displays. It supports automatic EDID® detection and includes DIP switches for fixed EDID settings. The HDMI output ports provide 5 VDC, 200mA to power Active Optical Cables (AOC).

FEATURES

- Distributes a single HDMI® video signal to two displays
- Supports video resolutions up to 4K@60Hz with YCbCr 4:4:4 color space, including all 3D modes
- Delivers up to 18Gbps video bandwidth
- Complies with the HDMI 2.0 and HDCP™ 2.3/1.4 standards
- Can automatically detect the EDID® from the displays and includes DIP switches for fixed EDID settings
- Supports automatic downscaling of 4K video for use with 1080p displays
- Supports HDCP Active and HDCP Passive modes
- HDMI output ports provide 5 VDC, 200mA to power Active Optical Cables (AOC)
- Built-in equalizer to allow the use of longer than normal HDMI cables
- Supports Consumer Electronic Control (CEC) pass-through
- Firmware can be upgraded using the built-in Micro USB port

CUSTOMER SERVICE

The Monoprice Customer Service department is dedicated to ensuring that your ordering, purchasing, and delivery experience is second to none. If you have any problem with your order, please give us an opportunity to make it right. You can contact a Monoprice Customer Service representative through the Live Chat link on our website www.monoprice.com or via email at support@monoprice.com. Check the website for support times and links.

PACKAGE CONTENTS

Please take an inventory of the package contents to ensure you have all the items listed below. If anything is missing or damaged, please contact Monoprice Customer Service for a replacement.

1x HDMI® 1x2 Splitter

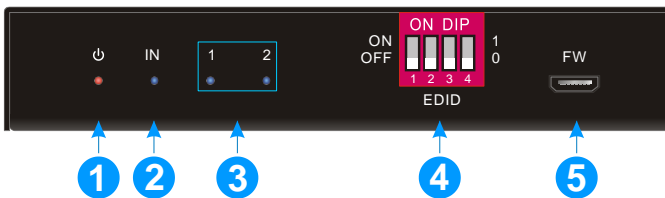
1x AC Power Adapter

4x Plastic Feet

1x User's Manual

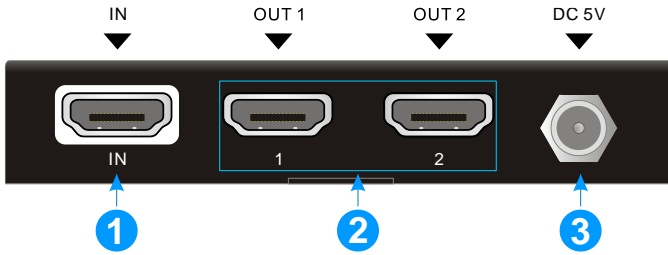
PRODUCT OVERVIEW

Front Panel



1. **POWER LED:** The LED illuminates red when power is applied.
2. **INPUT LED:** The LED illuminates blue when there is an active HDMI® signal on the input port.
3. **OUTPUT LEDS:** Each LED illuminates blue when there is an active HDMI signal on the corresponding output port.
4. **EDID:** Four DIP switches to set the EDID® and HDCP™ modes. Refer to the *DIP SWITCHES* section for details.
5. **FW:** Micro USB port for updating the firmware. Refer to the *FIRMWARE UPDATE* section for details.

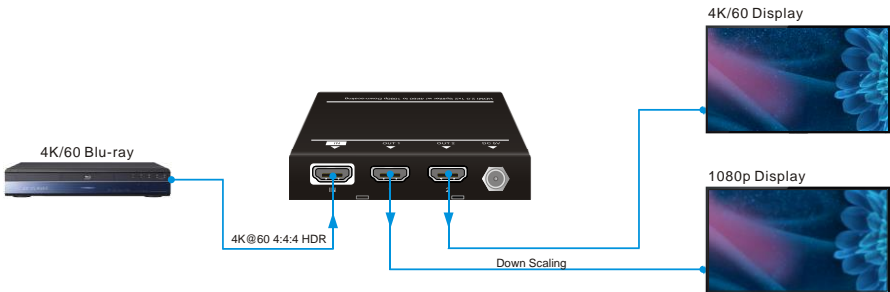
Rear Panel



1. **INPUT:** HDMI® port for connecting the video source device.
2. **OUTPUTS:** Two ports for connecting HDMI displays.
3. **DC 5V:** DC barrel connector for connecting the included AC power adapter.

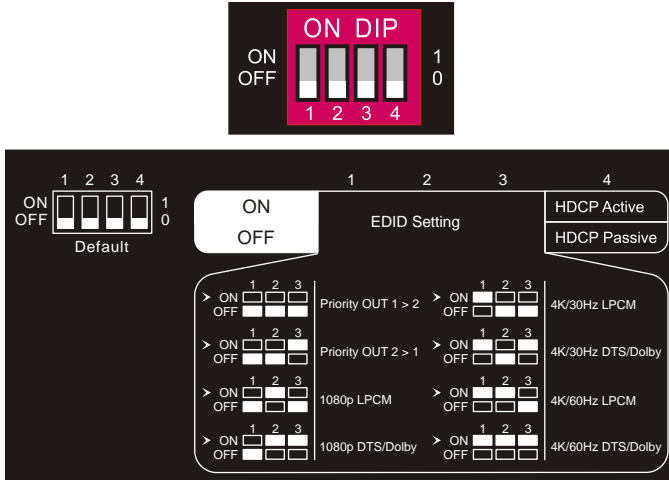
SAMPLE CONNECTION DIAGRAM

For best results, use Premium High Speed HDMI Cables (available separately) rated for 18Gbps bandwidth.



DIP SWITCHES

This splitter includes four DIP switches on the front panel, which are used to set the EDID® mode/settings, as well as to select HDCP™ Active or HDCP Passive mode. By default, all four DIP switches are in the **OFF** position. Switches 1-3 are used for EDID and switch 4 is used for HDCP.



EDID

DIP switches 1-3 control the EDID®. The following table shows the EDID settings for each DIP switch configuration.

Switches	Video Format	Audio Format
000	Obtains EDID from the first detected display in the order 1 > 2.	
001	Obtains EDID from the first detected display in the order 2 > 1.	
010	1080p	LPCM
011	1080p	DTS®/Dolby®
100	4K@30Hz HDR	LPCM

Switches	Video Format	Audio Format
101	4K@30Hz HDR	DTS®/Dolby®
110	4K@60Hz HDR	LPCM
111	4K@60Hz HDR	DTS/Dolby

HDCP

DIP switch 4 selects HDCP™ Active or HDCP Passive mode. HDCP Passive mode (default) follows the display's HDCP version, while HDCP Active mode strips HDCP content from the HDMI® signal for broader compatibility.

Switch	Mode	HDCP
0 (OFF)	Passive (default)	Follows the display's HDCP version.
1 (ON)	Active	Strips HDCP content from the HDMI signal for broader compatibility.

DOWNSCALING

This splitter supports automatic downscaling of some 4K signals to 1080p to allow for the use of a 1080p display. The following table shows which input signals can be downscaled and the resulting 1080p signals.

Input		Output	
Resolution/ Refresh Rate	Color Space	Downscale	1080p Signal
4K@60Hz	4:4:4	Supported	1080p@60Hz 4:4:4
4K@30Hz	4:4:4	Supported	1080p@30Hz 4:4:4

Resolution/ Refresh Rate	Color Space	Downscale	1080p Signal
4K@24Hz	4:4:4	Supported	1080p@24Hz 4:4:4
4K@60Hz	4:2:0	Supported	1080p@60Hz 4:4:4
4K@30Hz	4:2:0	Supported	1080p@30Hz 4:4:4
4K@24Hz	4:2:0	Supported	1080p@24Hz 4:4:4
4K@60Hz	4:2:2	Not Supported	N/A
4K@30Hz	4:2:2	Not Supported	N/A
4K@24Hz	4:2:2	Not Supported	N/A

FIRMWARE UPDATE

This splitter supports firmware upgrades using a Micro USB cable (available separately) plugged into your computer. Perform the following steps to upgrade the firmware.

1. Download the firmware **.zip** file from the **www.monoprice.com** website, then extract it to get the firmware file, which will have a **.bin** file extension.
2. With the splitter powered off, plug one end of a Micro USB cable (available separately) into the **FW** port on the splitter, then plug the other end into your PC.
3. Power the splitter on. Your PC will automatically detect a drive named **BOOTDISK**.
4. Double-click the drive to display the contents. A file named **READY.TXT** will be displayed.

5. Copy the firmware upgrade **.bin** file directly to the **BOOTDISK** drive.
6. If the firmware upgrade is successful, the **READY.TXT** file will be replaced by a **SUCCESS.TXT** file. If the upgrade fails, try the procedure again, including downloading and extracting the firmware **.bin** file.
7. Unplug the USB cable from the splitter and your PC.

TECHNICAL SUPPORT

Monoprice is pleased to provide free, live, online technical support to assist you with any questions you may have about installation, setup, troubleshooting, or product recommendations. If you ever need assistance with your new product, please come online to talk to one of our friendly and knowledgeable Tech Support Associates. Technical support is available through the online chat button on our website **www.monoprice.com** or through email by sending a message to **tech@monoprice.com**. Check the website for support times and links.

To download the latest drivers, firmware, manuals, etc., go to **www.monoprice.com** and type the P/N into the search bar. If available, support files are linked at the bottom of the product page.

SPECIFICATIONS

P/N	21612
Input	1x HDMI®
Outputs	2x HDMI
Maximum Input Resolution	4K@60Hz YCbCr 4:4:4 8-bit
Maximum Output Resolution	4K@60Hz YCbCr 4:4:4 8-bit
HDMI Version	2.0
HDCP™ Version	2.3 (1.4 compliant)
Video Bandwidth	18 Gbps
Active Optical Cable Support	Yes, each HDMI output provides 5 VDC, 200mA to power AOC cables
Consumer Electronic Control Support	Yes
Maximum HDMI Cable Length	4K@60Hz 4:4:4: ≤ 16 feet (5m) 4K@60Hz 4:2:0: ≤ 49 feet (15m) 1080p: ≤ 65 feet (20m)
Operating Temperature	+23 ~ +131°F (-5 ~ +55°C)
Storage Temperature	-13 ~ +158°F (-25 ~ +70°C)
Operating Humidity	10 ~ 90% RH, noncondensing
Input Power	5 VDC, 1A
AC Adapter Input Power	100 ~ 240 VAC, 50/60 Hz
Maximum Power Consumption	1.5 watts
Dimensions	3.8" x 2.8" x 0.7" (96 x 70 x 18 mm)
Weight	6.5 oz. (185g)

REGULATORY COMPLIANCE

Notice for FCC



This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifying the equipment without Monoprice's authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Notice for Industry Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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