Cable Matters

1x4 18Gbps 4K Audio/Video Extender and Splitter
Model 103095

Extend a signal from an HDMI source to 4 remote displays simultaneously

HDMI®

User Manual

- Download the user manual at:
  www.cablematters.com/dl/103095

support@cablematters.com

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1. INTRODUCTION

1.1 Introduction

Thank you for your purchase from Cable Matters® Inc., the 'Reliable Connectivity' company. This User Manual provides an overview of the features and installation of your new

1x4 18Gbps 4K Audio/Video Extender and Splitter

Please read these instructions carefully before connecting, operating or configuring this product. Please keep this manual for future reference.

Contact **support@cablematters.com** for questions or product support.

1.2 Copyright and Trademarks

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Dolby, Dolby Audio and the double-D symbol are trademarks of Dolby Laboratories.
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1.3 FCC Compliance Statement

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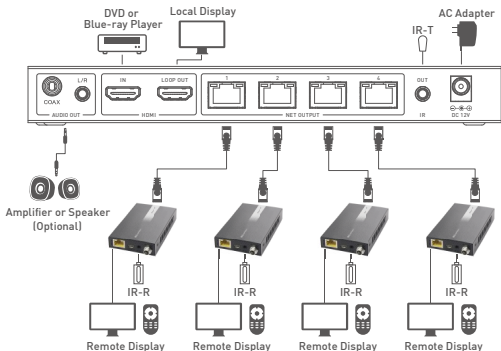
2. PRODUCT OVERVIEW

2.1 Package Contents

Please check that the following items are contained in the package:

- 1x 1x4 18Gbps 4K Audio/Video Extender and Splitter Transmitter
- 4x 1x4 18Gbps 4K Audio/Video Extender and Splitter Receivers
- 1x AC Power Adapter
- 5x IR Cables (1xTx and 4xRx)
- 4x Mounting Brackets with screws, Mounting Screws
- 2x HDMI® Cables—6 Feet
- 1x User Manual

2.2 Product Description

The Cable Matters **1x4 18Gbps 4K Audio/Video Extender and Splitter** provides the ideal solution for connecting 4 remote displays with 4K 60Hz HDMI video and audio up to 164 feet simultaneously (up to 196 feet at 4K 30Hz or 229 feet at 1080p 60Hz). Extend the signal from a computer, video streamer, Blu-ray player or Cable box to 4 remote displays with HDMI. Control the HDMI source at the far end with an IR Receiver. An optional local display can mirror the video sent to the remote displays. Split audio from HDMI to an external amplifier or speaker via a coaxial or 3.5mm audio cable.

2.3 Product Features

- Extend up to 4 displays from a single equipment source with 4K 60Hz video and audio up to 164 feet, 4K 30Hz up to 196 feet, or 1080p HDMI video and audio up to 229 feet
- Split audio from the HDMI stream over a coaxial cable or a 3.5mm audio cable
- Support for a local display to mirror the output of the remote displays
- Use a Cat 6 cable instead of a long and heavy HDMI cable
- Supports 4K@60Hz video resolution and YCbCr 4:4:4 8-bit color depth
- Supports advanced video features including HDR, HDR10+, HLG, and Dolby Vision
- HDCP 2.2 support for viewing protected content
- Copy the local or remote display EDID info to the source HDMI device with a switch
- Dolby Digital, Dolby True HD, DTS-HD Master Audio, DD+, DTS-ES, DTS HD-HRA, and DTS-X audio support
- Rugged metal housing construction reduces EMI electromagnetic noise
- Screw-on locking power cord prevents an accidental disconnection of the power
- Surface-mountable with the included brackets and screws
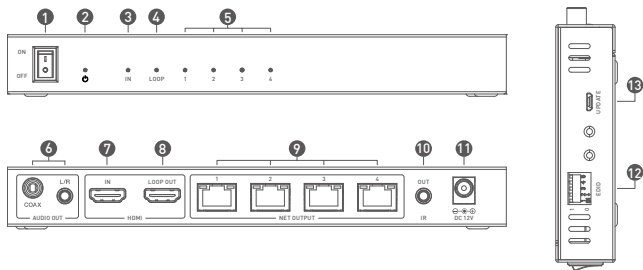- 2-Pack of HDMI Cables included

3. CONNECTION AND OPERATION

3.1 Installation Checklist

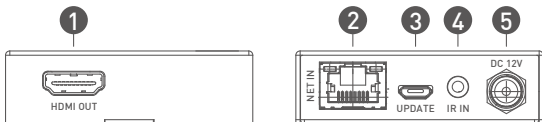Please review this information before installing the **1x4 18Gbps 4K A/V Extender and Splitter**

- Installation with a surge protector is recommended to protect the equipment
- Power-off the source and display equipment before connecting
- Check for a nearby AC outlet for the power adapter
- Recommended maximum total HDMI cable distance In/Out is 25/25ft
- IR cables require line-of-sight with the source equipment
- Test the Extender and cables before installing in a permanent location
- Directly connect to a Cat 6 cable, do not use with an active hub, network switch or router

3.2 Transmitter Panel Connections

1. **ON/OFF**: Power switch
2. **POWER** LED: LED is RED when the transmitter is powered on
3. **IN** LED: LED is GREEN when an active HDMI source device is connected
4. **LOOP** LED: LED is GREEN when a display is connected to the transmitter for local loopback
5. **OUT** LEDs: LEDs turn GREEN when an RJ45 cable is connected from the corresponding transmitter port to a receiver
6. **AUDIO OUT** ports: Connect an optional external amplifier or audio device over an analog coax or 3.5mm audio connector
7. **HDMI IN**: Connect HDMI source equipment
8. **LOOP OUT**: Connect an optional HDMI display to mirror the output of the remote displays locally
9. **NET OUTPUT 1-4**: Four RJ45 ports for Cat6 cable. Green light indicates a connection to the receiver. Orange light indicates an HDMI signal (illuminating for HDMI signal with HDCP, flashing for HDMI signal without HDCP)
10. **IR OUT**: 3.5mm port for IR blaster cable
11. **DC 12V**: Threaded locking barrel port for power adapter
12. **EDID** switch: Change the EDID mode for the transmitter.
13. **UPDATE** port: Used for firmware updates

3.3 Receiver Panel Connections

1. **HDMI OUT**: Connect to the remote extended display with HDMI
2. **NET IN**: RJ45 port for Cat 6 cable
3. **UPDATE:** Used for firmware updates
4. **IR IN**: 3.5mm port for IR Receiver cord
5. **DC 12V**: Optional receiver power connector. Receivers are powered via Ethernet. An external AC adapter is **NOT** required.

3.4 Connection Instructions

1. Power off all the source equipment and output displays
2. Connect the AC power adapter to the Transmitter and secure the locking ring
3. Connect an HDMI cable to the HDMI IN port of the Transmitter and the HDMI out port of the host device. Connect HDMI cables to the HDMI OUT ports on the receivers and to remote displays. **OPTIONAL:** Connect an HDMI cable to the HDMI LOOP OUT port on the Transmitter and a local display.
4. **OPTIONAL:** Connect a coax or 3.5mm audio cable to the AUDIO OUT port of the transmitter and to the audio in port of an external stereo, amplifier, speaker, or other audio equipment.
5. Connect the Cat 6 cable to the RJ45 ports on the Transmitter and Receiver
6. Connect the IR Transmitter and Receiver cables (See Page 7)
7. Plug the Transmitter power adapter into an AC outlet and depress the On/Off button to turn on the Transmitter (look for a Red LED)
8. Power on all the equipment and check for a video signal on the extended remote display
9. Select an EDID Mode (See Page 5) if there is no video signal

Notes:
- Test all the equipment and cables before installing permanently
- Don't stack the Cat 6 cables together. Spread them out to get the best network performance

3.5 EDID Management

This 1x4 18Gbps 4K Audio/Video Extender and Splitter can connect HDMI source equipment and output displays with different video resolutions and audio output settings. These settings can be individually programmed using the EDID management function on the transmitter and receivers.

For Dolby Vision support, set the EDID to copy the EDID from the OUTPUT the Dolby Vision-compatible television or monitor is connected to (values 22-26 on this chart).

Number	EDID Position		EDID Description
1	11111		1080p Stereo Audio 2.0
2	11110		1080p Dolby DTS 5.1
3	11101		1080p HD Audio 7.1
4	11100		1080i Stereo Audio 2.0
5	11011		1080i Dolby DTS 5.1
6	11010		1080i HD Audio 7.1
7	11001		1080p 3D Stereo Audio 2.0
8	11000		1080p 3D Dolby DTS 5.1
9	10111		1080p 3D HD Audio 7.1
10	10110		4K 30Hz, 4:4:4, Stereo Audio 2.0
11	10101		4K 30Hz 4:4:4, Dolby DTS 5.1
12	10100		4K 30Hz 4:4:4 HD Audio 7.1
13	10011		4K 60Hz 4:2:0 Stereo Audio 2.0
14	10010		4K 60Hz 4:2:0 Dolby DTS 5.1
15	10001		4K 60Hz 4:2:0 HD Audio 7.1
16	10000		4K 60Hz 4:4:4 Stereo Audio 2.0

Number	EDID Position	EDID Description
17	01111	4K 60Hz 4:4:4 Dolby DTS 5.1
18	01110	4K 60Hz 4:4:4 HD Audio 7.1
19	01101	4K 60Hz 4:4:4 Stereo Audio 2.0 HDR
20	01100	4K 60Hz 4:4:4 Dolby DTS 5.1 HDR
21	01011	4K 60Hz 4:4:4 HD Audio 7.1 HDR
22	01010	Copy EDID from LOOP OUT monitor
23	01001	Copy EDID from NET OUTPUT 1 monitor
24	01000	Copy EDID from NET OUTPUT 2 monitor
25	00111	Copy EDID from NET OUTPUT 3 monitor
26	00110	Copy EDID from NET OUTPUT 4 monitor
27	00101	720p Stereo Audio 2.0
28	00100	1080p Stereo Audio 2.0 (Excluding 24Hz)
29	00011	1080p Stereo Audio 2.0
30	00010	1080p Dolby DTS 5.1
31	00001	1080p HD Audio 7.1
32	00000	PC Control Mode

EDID Selection Notes: Set the dip switches for the audio/video setting above. The Extender and Splitter should adjust to the new settings within a few seconds.

3.6 IR Remote Control

IR Transmitter (Blaster) Cable   IR Receiver Cable

IR Transmitter Cable: Connect to the IR-T port on the Transmitter box. Requires line-of-sight with the HDMI source equipment IR window. Tip: Shine a light on the source box to reveal the IR window, if it is not labeled. Source equipment should be within 5 feet of the IR-T bulb. (Check your HDMI source equipment documentation).

IR Receiver Cable: Connect to the IR-R port on the Receiver box. Requires line-of-sight with the IR remote.

Note: RF and Bluetooth remotes are not compatible.

3.7 Troubleshooting Notes

- Check that all connected equipment have power.

- Check that both the Transmitter and Receiver have power. The red power LED on the Transmitter and green LED of the Cat 6 port on the Receiver should be lit.

- Check the LEDs on the Receiver's Ethernet port. A green LED indicates the receiver is powered. An orange LED indicates data transfer.

- Check that all cables are connected to the correct input and output ports. Secure the power cable with the locking ring.

- Directly connect the HDMI source equipment to each display to test for compatibility.

- Test the Cat 6 cable with a network tester.

- Try different EDID settings, test with only 1 display (local and extended).

- Test with a different display for compatibility issues.

- Check that the correct video input source and output display is selected.

- Check the audio output settings from the source device or computer.

- Try a lower resolution and/or refresh rate.

- Test each HDMI cable by connecting it with other equipment.

- Recommended maximum total HDMI cable distance In/Out is 25/25ft.

- Connecting an HDMI cable with a coupler or wall plate may degrade the signal transmission.

- Place the Extender away from fluorescent lighting or equipment that generates electrical noise.

- A 'Not Supported' error message may indicate that the connected equipment does not support HDCP (or more than 2 outputs) for viewing content-protected video.

- Check that the IR window on the source equipment is not blocked. The IR cables require line-of-sight. Test at a closer range, some IR remotes transmit a weaker signal.

- Wait 10 seconds for a handshake signal when connecting a computer.

- Unplug and re-plug the HDMI cable.

- Reboot the video source and output displays.

- If Dolby Vision does not work, set the EDID to copy the OUTPUT the Dolby Vision-compatible television or monitor is connected to (values 22-26 on the chart on Page 6).

Contact **support@cablematters.com** with any questions.

4. TECHNICAL SPECIFICATIONS Model 103095

Extender and Splitter Ports (Transmitter and Receiver)	
HDMI Input	1x HDMI Female
HDMI Output	5x HDMI Female
Audio Output	1x Coaxial Audio Out, 1x 3.5mm Stereo Audio Out
CAT Ports	8x RJ45 ports for Cat 6 cable
IR Ports	1x IR out (Transmitter), 4x IR in (Receiver)
Update Port	5x Micro USB Female
Power Supply	DC 12V/2.5A with threaded ring

Audio/Video Compatibility	
HDMI Compatibility	HDMI 2.0b and below
HDCP Compatibility	HDCP 2.2 and below
Video Resolution	Up to 4K@60Hz
Color Spaces	RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8-bit, 10-bit, 12-bit (1080p, 4K 60Hz 4:2:2/4:2:0), 8-bit (4K 60Hz 4:4:4)
HDR	HDR10, HDR10+, HLG, Dolby Vision
HDMI Audio Formats	LPCM 2.0/2.1/5.1/6.1/7.1CH, Dolby Digital, Dolby True HD, DTS-HD Master Audio, DD+, DTS-ES, DTS HD-HRA, DTS-X
Audio Out Port Formats	Coaxial: PCM 2.0, Dolby Digital / Dolby Digital Plus, DTS 2.0 / 5.1, Analog: PCM 2.0

Mechanical	
Transmitter Housing	(LxWxH) 8.2 x 3.9 x 0.9 Inches / 21.8 Ounces
Receiver Housing	(LxWxH) 3.5 x 2.4 x 0.7 Inches / 5.5 Ounces
Operating Temperature	32F - 104F

Miscellaneous	
Regulatory Compliance	C E, FCC, RoHS, UKCA
Warranty	Limited One-Year

5. WARRANTY AND SUPPORT

5.1 Customer Support and Contact Information

Cable Matters offers lifetime technical support as an integral part of our commitment to provide industry leading solutions.

Email us with any questions at **support@cablematters.com.**

5.2 Warranty Information

This product is backed by a limited one-year warranty. The warranty covers parts and labor costs only. Cable Matters does not warrant its products from defects or damages arising from misuse, abuse, or normal wear.

5.3 Limitation of Liability

In no event shall Cable Matters Inc. (including their officers, directors, employees or agents) be liable for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, loss of data, or any pecuniary loss, arising out of, or related to the use of this product exceeding the actual price paid for the product (as allowed by state law.

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3-Pack Certified Ultra High Speed HDMI Cables

Model 300029

150' Snagless Cat 6 Patch Cable

Model 160001

150' Shielded Cat 6 Patch Cable

Model 160012