

Neoteck NTKHE048

Neoteck HDMI 2.0 Repeater User Manual

Model: NTKHE048

Brand: Neoteck

1. INTRODUCTION

The Neoteck HDMI 2.0 Repeater (Model NTKHE048) is designed to amplify and extend HDMI signals, allowing for longer transmission distances without signal degradation. It supports resolutions up to 4K/2K@60Hz, including 3D content, and is suitable for various applications such as home entertainment, conference room presentations, and corporate training environments.

2. PRODUCT OVERVIEW

2.1 Key Features

- Supports HDMI 2.0 with resolutions up to 4K/2K@60Hz (2160P).
- Compatible with 3D video formats.
- Achieves serial data rates up to 6.0 Gbps for lossless video and audio transmission.
- Extends HDMI signal transmission distance up to 196ft (60m) using high-quality HDMI 2.0 24AWG cables.
- Compact design with a durable metal shell (53 x 45 x 19mm).
- Requires external 5V/1A power supply (USB cable included, adapter not included).

2.2 Package Contents

- 1 x Neoteck HDMI 2.0 Repeater (Model NTKHE048)
- 1 x USB Power Cable
- 1 x User Manual



Figure 1: Package Contents of the Neoteck HDMI 2.0 Repeater.

3. SETUP INSTRUCTIONS

Follow these steps to connect and set up your Neoteck HDMI 2.0 Repeater:

1. **Connect the HDMI Source:** Plug one end of an HDMI cable (up to 15m for 4K/60Hz, 20m for 4K/30Hz, or 30m for 1080P/60Hz) into your HDMI source device (e.g., PC, DVD player, game console).
2. **Connect to Repeater Input:** Connect the other end of this HDMI cable to the **HDMI IN** port on the Neoteck HDMI Repeater.
3. **Connect Display to Repeater Output:** Plug one end of another HDMI cable (up to 15m for 4K/60Hz, 20m for 4K/30Hz, or 30m for 1080P/60Hz) into the **HDMI OUT** port on the Neoteck HDMI Repeater.
4. **Connect to Display:** Connect the other end of this second HDMI cable to the HDMI input port on your display device (e.g., HDTV, projector).
5. **Power the Repeater:** Connect the included USB power cable to the DC 5V port on the repeater. Connect the other end of the USB cable to a 5V/1A USB power adapter (not included) or a USB port on your source/display device that provides sufficient power. The power indicator LED on the repeater will illuminate.

Important Note:

- For optimal performance, especially with 4K/60Hz signals, it is recommended to place the HDMI Repeater closer to the source device. This ensures the signal is amplified before significant degradation occurs over a long cable run.
- Always use high-quality HDMI 2.0 24AWG cables for best results and to achieve maximum transmission distances.



Figure 2: Connection Diagram for the Neoteck HDMI 2.0 Repeater.

To get perfect signal transmission, please put the HDMI Repeater close to the source



Figure 3: Recommended placement of the HDMI Repeater close to the source for perfect signal transmission.

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Video 1: Unboxing and basic connection guide for the Neoteck HDMI 2.0 Repeater. This video demonstrates how to connect the power and HDMI cables to the repeater and then to your source and display devices.

4. OPERATING INSTRUCTIONS

Once all connections are made and the repeater is powered on, the device operates automatically. It will detect the incoming HDMI signal, amplify it, and transmit it to the connected display. No additional configuration or software is required.

4.1 Signal Transmission Distances

The maximum achievable transmission distance depends on the resolution and the quality of the HDMI cables used:

- **4K/60Hz:** Up to 30 meters (98 feet) total (e.g., 15m input + 15m output).
- **4K/30Hz:** Up to 40 meters (131 feet) total (e.g., 20m input + 20m output).
- **1080P/60Hz:** Up to 60 meters (196 feet) total (e.g., 30m input + 30m output).

Ultra-High Resolution, Terrific Experience

Supports 4K 60Hz YUV 4:4:4 HDR



Figure 4: Ultra-High Resolution Support (4K 60Hz YUV 4:4:4 HDR).

5. SPECIFICATIONS

Feature	Detail
Model Number	NTKHE048
Product Dimensions	2.09 x 1.77 x 0.75 inches (53 x 45 x 19mm)
Item Weight	4.6 ounces
HDMI Version	HDMI 2.0
Supported Resolutions	Up to 4K/2K@60Hz (2160P), 3D
Data Rate	6.0 Gbps
Max Transmission Distance (4K/60Hz)	30m (15m input + 15m output) with 24AWG HDMI 2.0 cable

Max Transmission Distance (4K/30Hz)	40m (20m input + 20m output) with 24AWG HDMI 2.0 cable
Max Transmission Distance (1080P/60Hz)	60m (30m input + 30m output) with 24AWG HDMI 2.0 cable
Power Supply	DC 5V/1A (USB cable included, adapter not included)

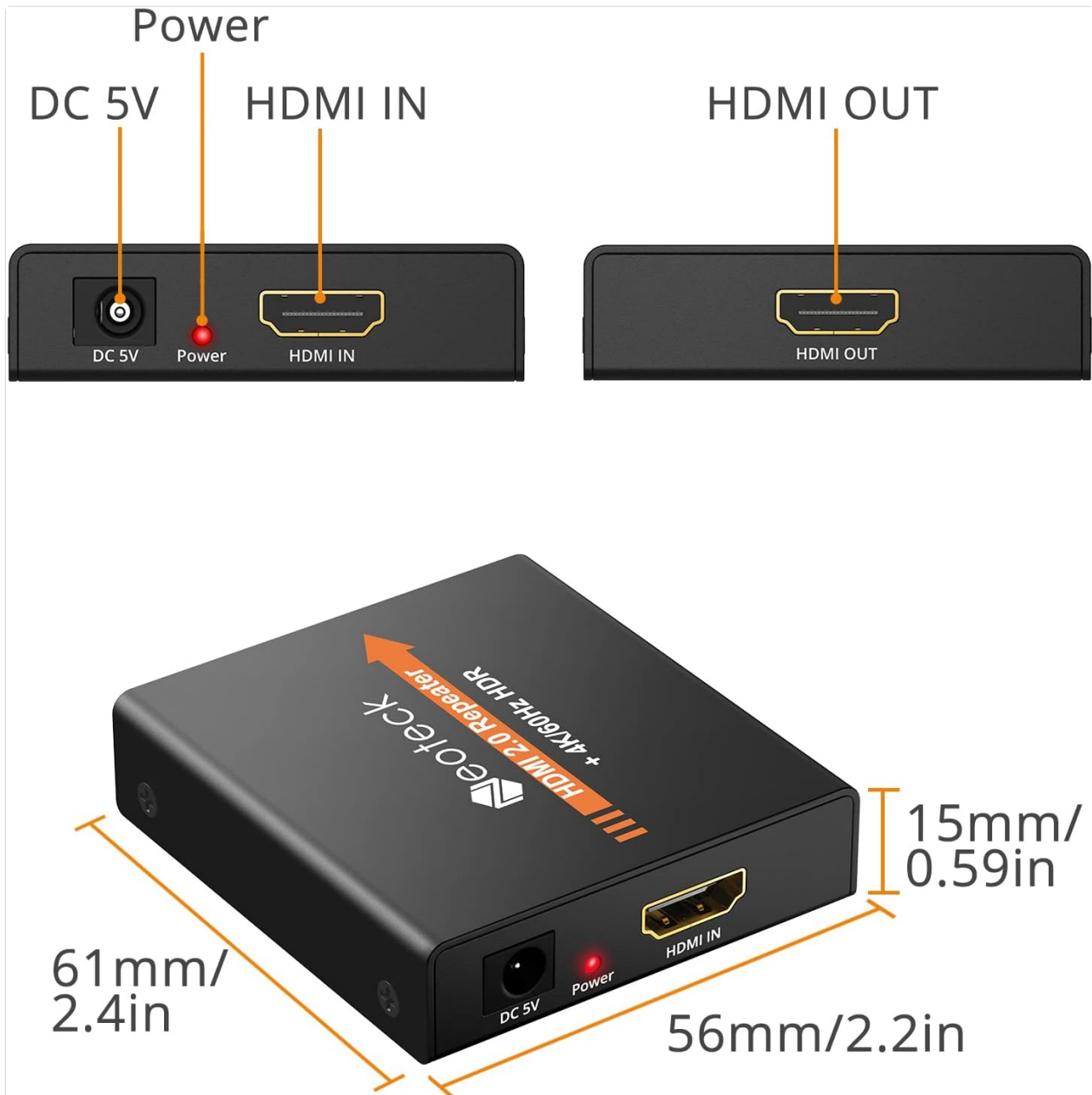


Figure 5: Repeater Ports and Dimensions.

6. TROUBLESHOOTING

If you encounter issues with your HDMI Repeater, please refer to the following common problems and solutions:

- **No Picture or Intermittent Signal:**
 - Ensure all HDMI cables are securely connected to both the source, repeater, and display.
 - Verify that the repeater is receiving power and the power indicator LED is on. Try a different 5V/1A USB power adapter if available.
 - Check the quality and length of your HDMI cables. Longer cables, especially for 4K resolutions, require higher quality (e.g., 24AWG HDMI 2.0 certified).

- Try reducing the total cable length if possible.
- Test the HDMI source and display directly without the repeater to confirm they are functioning correctly.
- Ensure the repeater is placed closer to the source device, as recommended in the setup section.
- **Picture Quality Issues (Flickering, Snow, Color Distortion):**
 - This often indicates signal degradation. Recheck cable quality and length.
 - Ensure the power supply to the repeater is stable and sufficient (5V/1A).
 - Try a different HDMI cable.
- **No Audio:**
 - Verify that the audio settings on your source device and display are correctly configured.
 - Ensure the HDMI cables support audio transmission.

7. MAINTENANCE

To ensure the longevity and optimal performance of your Neoteck HDMI 2.0 Repeater, follow these maintenance guidelines:

- Keep the device in a cool, dry place, away from direct sunlight, heat sources, and moisture.
- Avoid exposing the device to extreme temperatures or humidity.
- Clean the device with a soft, dry cloth. Do not use liquid cleaners or aerosols.
- Do not attempt to open or modify the device, as this will void the warranty and could cause damage.
- Disconnect power when the device is not in use for extended periods.

8. WARRANTY AND SUPPORT

Neoteck products are designed for reliability and performance. For specific warranty information, please refer to the warranty card included with your purchase or visit the official Neoteck website. If you require technical assistance or have questions not covered in this manual, please contact Neoteck customer support through their official channels.