



**AC7820**  
**HDMI repeater, up to 40 meters, 4K support**

**en**

Manual

## AC7820 | HDMI repeater, up to 40 meters, 4K support

<b>Introduction</b> .....	<b>3</b>
Display video up to 40 meters away .....	<b>Error! Bookmark not defined.</b>
<b>Supported Distances and Resolutions</b> .....	<b>3</b>
<b>Connecting your devices</b> .....	<b>3</b>
<b>Features</b> .....	<b>3</b>
Package Content .....	3
Specifications .....	4
Operation Controls and Functions .....	4
<b>Service and support</b> .....	<b>5</b>
<b>Warning and points of attention</b> .....	<b>5</b>
<b>Warranty conditions</b> .....	<b>6</b>

## Introduction

The AC7820 HDMI 18Gbps Repeater is an advanced solution for HDMI signal extension and cascading. By amplifying and equalizing signals, it significantly improves audio and video quality. Equipped with CDR (Clock Data Recovery) technology, the AC7820 ensures a transmission rate of 18Gbps without data loss. Its ultra-compact design allows for easy integration into any setup, and no additional power supply is required.

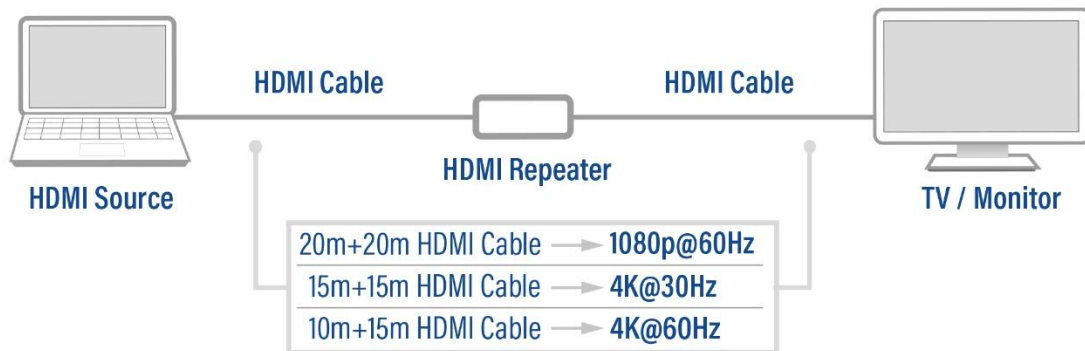
## Supported Distances and Resolutions

The maximum transmission distance depends on the resolution and the HDMI cable quality:

- 4K @ 60Hz (YUV 4:4:4): Up to 25 meters.
- 4K @ 60Hz (YUV 4:2:0): Up to 30 meters.
- 1080p @ 60Hz: Up to 40 meters.

## Connecting your devices

1. Connect the AC7820 Repeater using two High Speed HDMI cables between your source (e.g., media player) and your display (e.g., TV).
2. The repeater automatically amplifies the signal; therefore, no external power supply is needed.
3. To utilize the full 18Gbps bandwidth, ensure your cables are rated for the desired resolution and distance.



## Features

- Maximum Resolution: 4K @ 60Hz.
- Bandwidth: Supports up to 18Gbps.
- Signal Integrity: Features CDR (Clock Data Recovery) to prevent data loss.
- Power: Bus-powered via HDMI; no external adapter required.
- Design: Ultra-compact and easy to install.

## Package Content

1x AC7820 HDMI Repeater (HDMI cables not included)

## Specifications

Technical	
HDMI Compliance	HDMI 2.0
HDCP Compliance	HDCP 2.2 / 1.x
Video Bandwidth	18 Gbps
Video Resolution	Up to 4k2k@60Hz YUV 4:4:4
Color Depth	8-bit,10-bit,12-bit (1080p@60Hz)8-bit (4K2K@60Hz YUV4:4:4) 8-bit,10-bit,12-bit (4K2K@60Hz YCbCr 4:2:2/4:2:0)
Color Space	RGB, YCbCr 4:4:4, YUV 4:4:4, YCbCr 4:2:2/4:2:0
HDMI Audio Formats	PCM2.0/5.1/7.1CH, Dolby 5.1, DTSS.1, Dolby-TrueHD, DTS-HD
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

## Operation Controls and Functions



No.	Name	Function Description
1	HDMI IN	<b>HDMI input port:</b> Connect to a source device such as a 4K media streamer (Apple TV, Chromecast), gaming console (PS5, Xbox), or laptop using a High Speed HDMI cable.
2	HDMI OUT	<b>HDMI output port:</b> Connect to a display device such as a 4K UHD TV, monitor, or projector using a High Speed HDMI cable.

## Service and support

This user manual has been carefully written by ACT's technical experts. If you have problems installing or using the product, please check the **support** link at the website [www.act-connectivity.com](http://www.act-connectivity.com).

## Warning and points of attention



Due to laws, directives and regulations set out by the European parliament, some (wireless) devices could be subject to limitations concerning its use in certain European member states. In certain European member states the use of such devices could be prohibited. Contact your (local) government for more information about these limitations.

Always follow up the instructions in the manual\*, especially where it concerns devices which need to be assembled.

Warning: In most cases this concerns an electronic device. Improper use may lead to severe injuries!

When you connect the device to the mains, make sure it will not be damaged or subject to (high) pressure.

A power socket is needed which should be close and easy accessible from the device.

Repairing of the device should be done by qualified ACT staff. Never try to repair the device yourself. The warranty immediately voids when products have undergone self-repair and/or by misuse. For extended warranty conditions, please visit our website at [www.act-connectivity.com](http://www.act-connectivity.com)

Dispose of the device appropriately. Please follow your country's regulations for the disposal of electronic goods.

Please check below safety points carefully:

- Do not apply external force on the cables
- Do not unplug the device by pulling the power cable
- Do not place the device near heating elements
- Do not let the device come in contact with water or other liquids
- If there is any strange sound, smoke or odor, remove the device immediately from the power outlet.
- Do not put any sharp objects into the venting hole of a product
- Do not use any damaged cables (risk of electric shock)
- Keep the product out of reach of children
- Wipe off the product with soft fabric, not water mop.
- Keep the power plug and outlet clean
- Do not unplug the device from the power outlet with wet hands
- Unplug the device when you don't use it for a long time
- Use the device at a well ventilated place

*\*Tip: ACT manuals are written with great care. However, due to new technological developments it can happen that a printed manual no longer contains the most recent information. If you are experiencing any problems with the printed manual or you cannot find what you are looking for, please always check our website [www.act-connectivity.com](http://www.act-connectivity.com) first for the newest updated manual.*

*Frequently asked questions (FAQ). Consult **support** on our website [www.act-connectivity.com](http://www.act-connectivity.com) and see if you can find the right information about your product here. It is highly advisable to consult the FAQ section first, the answer is often here.*

## Warranty conditions

The ACT warranty applies to all ACT products. After purchasing a second-hand ACT product, the remaining warranty period is calculated from the moment of purchase by the product's initial owner. ACT warranty applies to all ACT products and parts, indissolubly connected or mounted to the product it concerns. Power supply adapters, batteries, antennas and all other products not directly integrated in or connected to the main product or products of which, without reasonable doubt, can be assumed that wear and tear during use will show a different pattern than the main product, are not covered by the ACT warranty. Products are not covered by the ACT warranty when exposed to incorrect/improper use, external influences or when opening the service parts of the product by parties other than ACT. ACT may use refurbished materials for repair or replacement of your defective product. ACT cannot be held responsible for changes in network settings by internet providers. We cannot guarantee that the ACT networking product will keep working when settings are changed by the internet providers. ACT cannot guarantee the working of web services, apps and other third party content that is available through ACT products

### When my product gets defective

Should you encounter a product rendered defective for reasons other than described above: Please contact your point of purchase for taking care of your defective product.