EX-TS-400-10

NETVIO

1080P HDMI EXTENDER 40M WITH LOOP-OUT, IR CONTROL & POC



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Safety Information



Do not attempt to remove the product casing, as this may result in electrical shock. Repairs should not be attempted by anyone other than qualified personnel. For any service or repair needs, please contact Netvio Ltd or an authorized reseller to follow the proper service procedures. Any unauthorized repairs or the use of non-approved components will void the product warranty. For complete warranty terms and conditions, please visit: www.netvio.co.uk.

The Netvio EX-TS-400-10 is a compact HDMI extender kit (Transmitter & Receiver) that delivers uncompressed, zero-latency HDMI video and audio over a single CAT6 cable. It extends 1080p60 up to 40m (131ft), making it a reliable and cost-effective solution for both residential and commercial AV installations.

The transmitter includes a local HDMI loop output for direct display connection or cascading to additional extenders. With EDID copy functionality, the system ensures reliable source compatibility, while one-way IR pass-through allows remote control of the source device.

The system is powered via a single 12V DC adapter, with PoC (Power over Cable) enabling both transmitter and receiver to operate without multiple power supplies. A robust metal housing and compact design make the EX-TS-400-10 easy to install in any environment.

KEY FATURES

- Long-Distance HDMI Extension – Extend 1080p60 up to 40m (131ft) over a single CAT6 cable.
- HDMI Loop Output – Local monitoring or cascading to additional extender kits.
- IR Control – One-way IR pass-through for remote source control.
- EDID Copy Function – Local or remote EDID selection for compatibility.
- PoC Powering – Single 12V supply powers both units for simplified installation.
- Compact & Reliable – Slim metal enclosures built for long-term professional use.

WARRANTY

- Standard 5-Year warranty. Details available at www.netvio.co.uk/warranty

IN-THE-BOX

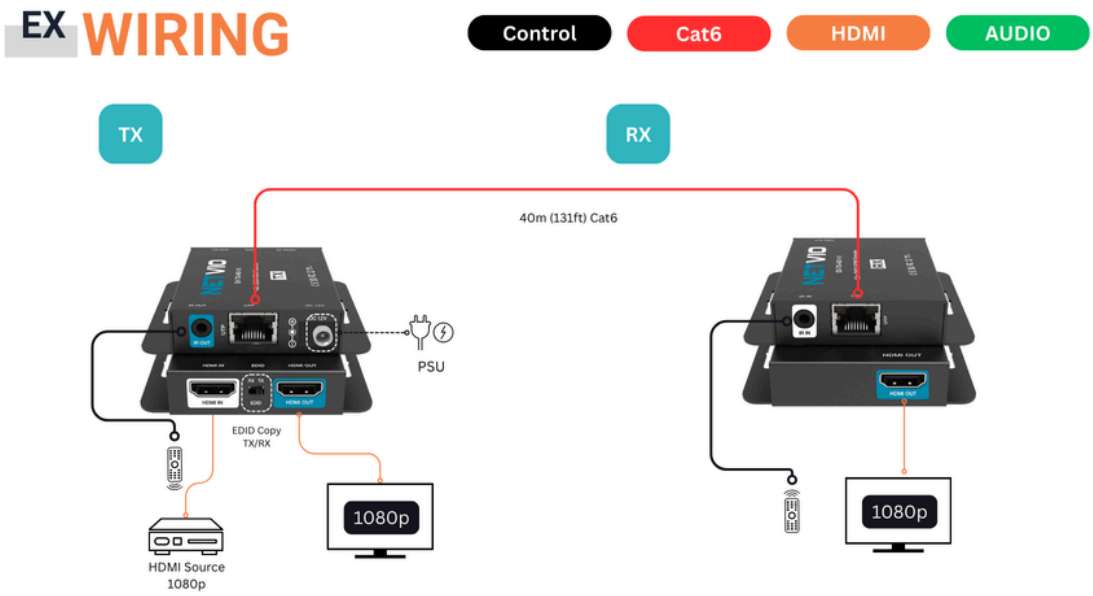
- 1× HDMI Transmitter (EX-TS-400-10-TX)
- 1× HDMI Receiver (EX-TS-400-10-RX)
- 1× IR Blaster Cable (1.5m)
- 1× IR Receiver Cable (1.5m)
- 1× 12V/1A Power Adapter
- 1× User Information

The terms HDMI and HDMI High-Definition Multimedia interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

CABLE & CONNECTIONS

- **Important Notice on Cable Installation and Performance**
- Advertised cable distances are for reference only. Transmission distances can be influenced by various factors, including cable construction, quality, installation standards, patch panels, faceplates, and external elements such as electromagnetic interference (EMI).
- This product is designed to operate over unshielded twisted pair (UTP) Cat5e, Cat6, and Cat7 cables. When using shielded (STP) category cables. Product is designed for solid for solid copper conductors and not stranded pre-made patch cables. If used, advertised transmission distances will be reduced as a result.
- **RJ45 Termination Standards:**
- Follow the EIA/TIA-568-B termination standard. Do not simply wire pin-to-pin (e.g., Pin 1-1, Pin 2-2). The 568-B standard requires splitting the green pair between Pins 3 and 6.
- Maintain the twists in the Cat5e/Cat6/Cat7 cable pairs as close as possible to the point of termination.
- **Shielded Cable**
- Ground the shield at one end only (typically at the head-end equipment rack). This prevents ground loops while still providing EMI protection.
- **Cable Installation Guidelines:**
- Avoid sharp bends or twists. Use gradual bends, with a minimum bend radius of 25mm wherever possible.
- Ensure that cables are not pulled too tightly or stretched. Excess tension can damage the cable. The maximum pulling force should not exceed 11kgf.
- Dress the cable with moderate to low pressure, ensuring the cable jacket is not pinched.
- Never splice, join, or bridge the cable, as this can cause significant transmission issues.
- **Electromagnetic Interference (EMI):**
- Keep category cables at least 300mm away from sources of EMI, such as electrical cables, transformers, and light fixtures. If necessary, cross electrical cables at right angles to minimize interference.
- **Testing and Certification:**
- After installation, ensure that the cable is thoroughly tested. A basic continuity check may not be sufficient to identify issues or certify performance.
- Finally, always verify compliance with local building and fire codes before installation.

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Installation Instructions

1. **Preparation**

- Ensure all equipment (source, display, Cat cable, power supply) is powered off.
- Use high-quality Cat6 or better cable, terminated to T568B standard.
- Position transmitter near the source and receiver near the display.

2. **Connections**

- **Source to Transmitter**
  - Connect HDMI cable from Blu-ray, PC, or set-top box to the HDMI IN port on the transmitter.
  - Local Monitor (Optional)
  - Connect display to the HDMI OUT (loop-out) on transmitter for local viewing.
  - CAT Connection
  - Run a Cat6/5e cable from CAT OUT (TX) to CAT IN (RX). Keep cable length within rated limits.
- **Display Connection**
  - Connect HDMI cable from HDMI OUT (RX) to the display.
  - IR Setup (Optional)
  - Plug IR blaster into TX IR OUT, and IR receiver into RX IR IN. Point them at source and remote control location.
- **Power On**
  - Connect 12V/1A DC power adapter to the transmitter. The receiver will power automatically via PoC.
- **Configure EDID**
  - Set EDID DIP switch on transmitter:
  - Right position = copy EDID from loop-out display.
  - Left position = copy EDID from receiver display.

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Trouble Shooting

No Video or Audio

- Verify all HDMI and Cat6 connections are firmly inserted.
- Check cable length; ensure it does not exceed 40m/131ft (1080p)
- Confirm power LED is lit on both units.
- Try alternate HDMI cable or shorter Cat6 cable.
- Check EDID switch setting; try the opposite position.

No Power on Receiver

- Ensure TX is powered with supplied 12V adapter.
- Check Cat6 cable is properly terminated and not exceeding length.

Loop-Out Display Works, Remote Display Does Not

- Inspect Cat6 cabling. Replace or re-terminate if necessary.
- Ensure RX HDMI OUT is connected to display's HDMI input.

SPECIFICATIONS

Video

- HDMI Compliance: HDMI 1.4
- HDCP Compliance: HDCP 1.4
- Video Bandwidth: 10.2Gbps
- Supported Resolutions: Up to 1080p@60Hz
- Transmission Distance: Up to 40m (131ft) at 1080p60 via CAT6

Audio

- Audio Support: Up to 7.1CH HD audio, Dolby TrueHD, DTS-HD

Inputs / Outputs – Transmitter

- 1× HDMI In (Type-A, female)
- 1× HDMI Out (Loop, Type-A, female)
- 1× CAT Out (RJ45, 8-pin female)
- 1× IR Out (3.5mm jack)

Inputs / Outputs – Receiver

- 1× CAT In (RJ45, 8-pin female)
- 1× HDMI Out (Type-A, female)
- 1× IR In (3.5mm jack)

Control & Features

- EDID Copy Function (local/remote)
- IR Pass-Through (one-way)
- PoC Power (from Transmitter to Receiver)

Mechanical

- Dimensions: 79.5 × 69 × 16.5 mm (3.13″ × 2.71″ × 0.65″)
- Weight: Transmitter 132g (0.29 lbs), Receiver 130g (0.28 lbs)
- Enclosure: Metal, black finish

Environmental

- Operating Temp: 0–40°C (32–104°F)
- Storage Temp: –20–60°C (–4–140°F)
- Humidity: 20–90% RH, non-condensing

Power

- Supply: 12V DC / 1A (included)
- Consumption: TX 1.86W, RX 0.87W
- PoC Supported

Warranty

- 5 Years (for full details, visit the Netvio website)

Connectivity

- **Transmitter**
  - 1× HDMI Input
  - 1× HDMI Loop Output
  - 1× CAT Output (to Receiver)
  - 1× IR Out (to source device)
  - 1× DC 12V Power Input
- **Receiver**
  - 1× CAT Input (from Transmitter)
  - 1× HDMI Output (to display)
  - 1× IR In (for remote control signal return)

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IR CONTROL BEST PRACTICE

When using IR extension kits to control your AV sources and displays, proper setup and environmental factors can significantly affect performance. Here are some key tips and common issues to check:

- **Emitter Placement (IR Emitter on Source Device):**
  - Ensure the IR emitter is securely placed directly over the IR sensor window of the source device (e.g., Blu-ray player, set-top box). This window is often near the front panel and may be difficult to see. If unsure, refer to the device's manual or test positioning while pressing remote buttons.

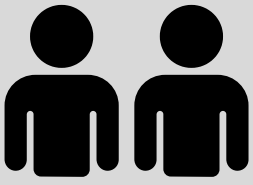
- **Receiver Position (IR Receiver or Transmitter Facing Remote):**
  - The IR receiver must be positioned in a location that has clear line-of-sight to the remote control. Avoid placing it behind TV bezels, inside cabinets, or near dark glass that might block or reflect IR signals.

- **Sunlight and Bright Lighting:**
  - Direct sunlight or strong fluorescent lighting can interfere with IR signals. Try to position the IR receiver away from windows or bright light sources. In rooms with excessive natural light, consider using a receiver with better shielding or IR filtering.

- **Signal Distance and Interference:**
  - IR extension kits typically work best within the recommended cable length. Excessive cable runs or using low-quality extension cables can degrade the signal. Also, avoid running IR cables alongside high-voltage power lines or network cables to reduce potential interference.

- **Double Check Input/Output:**
  - IR kits have specific ports for "IR IN" (receiver) and "IR OUT" (emitter). Connecting these incorrectly can prevent the system from working.

- **Test with Direct Remote Access:**
  - Before troubleshooting the IR extension, confirm the source device responds to the remote when used directly. If not, the issue may be with the remote or the device itself.



Much Easier with two people

Have one person point the remote control at the IR receiver device. They other people can be moving the IR emitter around the front panel of the source input device.

Together, you should be able to find the most responsive area. Once found secure both the receiver and emitter devices, try to avoid any movement, as this will effect the remote performance.

TERMS OF USE

FCC Statement (U.S. Only – If Device Emits RF)

- 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.
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE Compliance Statement (EU Market)

- This product complies with the essential requirements and other relevant provisions of the Radio Equipment Directive (2014/53/EU), EMC Directive (2014/30/EU), and Low Voltage Directive (2014/35/EU), where applicable."

WEEE Directive (EU Market)

- Do not dispose of this product as unsorted municipal waste. Return it to a designated collection facility for the recycling of electrical and electronic equipment."

RoHS Compliance Statement

- This product complies with the Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU, as amended by Directive (EU) 2015/863."

Data Privacy / Network Disclaimer (For IP/Networked Devices)

- This device may store or transmit data over IP networks. It is the user's responsibility to ensure the network environment is secured and configured in accordance with IT policies."

Product Liability Disclaimer

- The manufacturer is not responsible for any loss of data, revenue, or property resulting from the use or misuse of this product. Installation should be performed by qualified personnel."

Environmental and Safety Use Conditions

- This device is intended for use in a pollution degree 2 environment. Operating temperature: 0°C to 40°C. Relative humidity: 10% to 90%, non-condensing."

Limitation of Warranty

- Warranty does not cover damage resulting from accident, misuse, unauthorized modification, or operation outside the product's intended use and environmental conditions. Go to www.netvio.co.uk for full warranty conditions.



Warranty Returns

If you have any concerns regarding the performance of your Netvio product, please contact our support team at **support@netvio.co.uk**.

If troubleshooting does not resolve the issue, we can arrange a replacement either directly or through your regional distributor.

To help us process your request quickly, please include details of where the product was purchased and provide a proof of purchase document.

Subject to fault confirmation, verification that the product has been used within its intended design scope, and confirmation of ownership period, a replacement item will be provided.