# 1080P Video Extender

## [ HDMI 1.3, Local Out, 2-Way IR, 150m ]

Transmitter Receiver

# DSG-HDMI-1080C

## User Manual

VER 1.0

## Thank You For Purchasing This Product

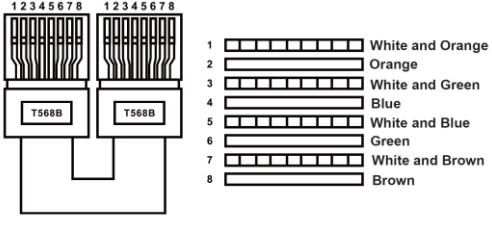
For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## Surge Protection Device Recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended to protect and extend the life of your equipment.

## Caution

The product requires the use of UTP connectors. Please connect using the direct interconnection method and do not cross connect.




**Direct Interconnection Method**

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For the latest user manual and product updates, please visit https://www.dsgio.com/video_extenders/.

# 1. Introduction

This 1080p HDMI Extender can extend HDMI video/audio signals and bi-directional IR control signals up to 150 m (492 ft) over CAT6/6a cable, enabling zero-delay, uncompressed long-distance transmission between the signal source and the display device. Video resolution supports up to 1080p@60Hz, and audio format supports up to PCM 2.0. The product features a built-in EDID function.

This multi-functional product can be widely applied in demonstrations, video conferences, multimedia teaching, and other occasions.

# 2. Features

- Compliant with HDCP 1.4
- Video bandwidth up to 4.95 Gbps
- Supports video resolutions up to 1080p@60Hz and 1920×1200@60Hz, as specified in HDMI 1.3
- Transmission distance up to 150 m (492 ft) over CAT6/6a cable
- Supports bi-directional IR pass-through
- Supports audio formats up to 2-channel PCM 2.0
- With built-in EDID

## 3. Package Contents

① 1 × 1080p HDMI Video Extender (Transmitter)
② 1 × 1080p HDMI Video Extender (Receiver)
③ 1 × IR Blaster Cable (1.5m)
④ 1 × IR Wideband Receiver Cable (1.5m)
⑤ 2 × 5V/1A Power Adapter
⑥ 1 × User Manual

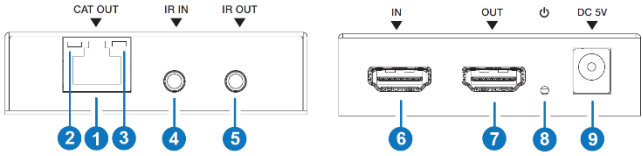
## 4. Specifications

| **Technical** | |
|---|---|
| HDMI Compliance | HDMI 1.3 |
| HDCP Compliance | HDCP 1.4 |
| Video Bandwidth | 4.95Gbps |
| Video Resolution | Up to 1080p@60Hz, 1920x1200@60Hz |
| Colour Space | RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2 |
| Colour Depth | 8-bit |
| Audio Formats | PCM 2.0 |
| IR Level | 5Vp-p |
| IR Frequency | Wideband 20K-60KHz |
| Transmission Distance | 150m/492ft for 1080p@60Hz over CAT6/6a cable |
| ESD Protection | IEC 61000-4-2: ±8kV (air-gap discharge) & ±4kV (contact discharge) |
| **Connections** | |
| Transmitter | Input: 1 × HDMI IN [Type A, 19-pin female]<br>1 × IR IN [3.5mm Mini-jack]<br>Output: 1 × HDMI OUT [Type A, 19-pin female]<br>1 × IR OUT [3.5mm Mini-jack]<br>Network: 1 × CAT OUT [RJ-45] |

| | |
|---|---|
| Receiver | Input: 1 × IR IN [3.5mm Mini-jack]<br>Output: 1 × HDMI OUT [Type A, 19-pin female]<br>1 × IR OUT [3.5mm Mini-jack]<br>Network: 1 × CAT IN [RJ-45] |
| **Mechanical & Environmental** | |
| Housing | Metal Enclosure |
| Color | Black |
| Dimensions | Transmitter / Receiver:<br>74mm (W) × 68mm (D) × 20mm (H) |
| Weight | Transmitter: 170g, Receiver: 170g |
| Power Supply | DC 5V/1A |
| Power Consumption | Transmitter: 1.5W (Max.), Receiver: 1.35W (Max.) |
| Operating Temperature | 0°C ~ 40°C / 32°F ~ 104°F |
| Storage Temperature | -20°C ~ 60°C / -4°F ~ 140°F |
| Operating Humidity | 20 ~ 80% RH (non-condensing) |
| Storage Humidity | 10 ~ 90% RH (non-condensing) |

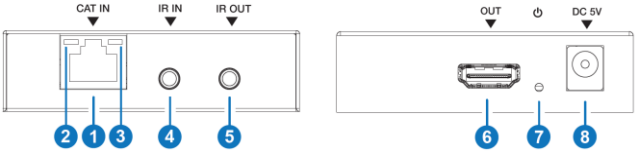
# 5. Operation Controls and Functions

## 5.1 Transmitter Panel



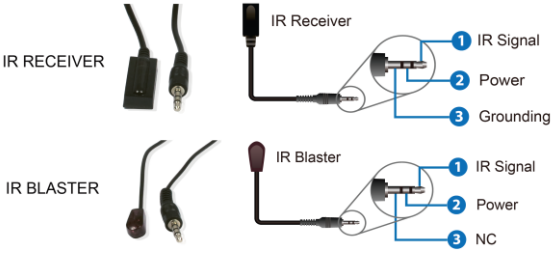

| No | Name | Function Description |
|---|---|---|
| 1 | CAT OUT | Connects to the CAT IN port on the receiver using a CAT cable. |
| 2 | HDMI Signal Indicator (Green) | The green LED turns on when an HDMI input signal is detected. |
| 3 | Connection Signal Indicator (Yellow) | • When the TX and RX are connected and a signal is being transmitted, the yellow LED flashes quickly.<br>• When the TX and RX are connected but no signal is transmitted, the yellow LED flashes slowly. |
| 4 | IR IN | IR signal input port. Connects to a 5V IR wideband receiver. |
| 5 | IR OUT | IR signal output port. Connects to a 5V IR blaster. |
| 6 | HDMI IN | HDMI signal input port. Connects to an HDMI source device such as a DVD player or computer using an HDMI cable. |
| 7 | HDMI OUT | HDMI signal loop output port. Connects to an HDMI display device such as a TV or monitor using an HDMI cable. |
| 8 | Power LED | The green LED turns on when the transmitter is powered on. |
| 9 | DC 5V | DC 5V/1A power input port. |

## 5.2 Receiver Panel

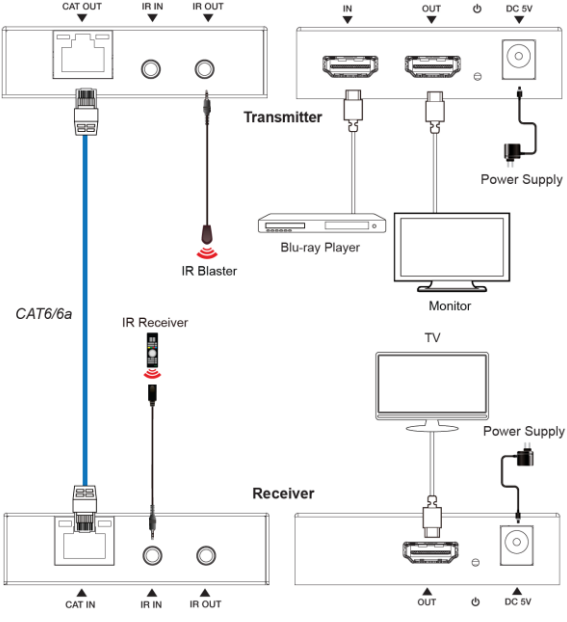



| No | Name | Function Description |
|---|---|---|
| 1 | CAT IN | Connects to the CAT OUT port on the transmitter using a CAT cable. |
| 2 | HDMI Signal Indicator (Green) | The green LED turns on when an HDMI input signal is detected. |
| 3 | Connection Signal Indicator (Yellow) | • When the TX and RX are connected and a signal is being transmitted, the yellow LED flashes quickly.<br>• When the TX and RX are connected but no signal is transmitted, the yellow LED flashes slowly. |
| 4 | IR IN | IR signal input port. Connects to a 5V IR wideband receiver. |
| 5 | IR OUT | IR signal output port. Connects to a 5V IR blaster. |
| 6 | HDMI OUT | HDMI signal output port. Connects to an HDMI display device such as a TV or monitor using an HDMI cable. |
| 7 | Power LED | The green LED turns on when the receiver is powered on. |
| 8 | DC 5V | DC 5V/1A power input port. |

# 6. IR Pin Definition



# 7. Application Example

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