# omnigates



# OG HDBaseT™ Extender

SKU: 31001111

User's Manual

Thank you for purchasing OG HDBaseT™ Extender. For optimum performance and safety, please read these instructions carefully before connecting and operating this product. Please keep this manual for future reference.

### INTRODUCTION

The HDBaseT Extender can extend HDMI signal over 500 feet/150 meters to an HDMI compatible display via a single Cat5e/6 cable. It also supports bi-directional Infrared control signal and RS-232 transmission together with HDMI signal. This will allow you to easily control your DVD player alongside your TV or control your TV alongside the DVD player when using this extender without interference.

#### **FEATURES**

- 1. HDMI 1.4, HDCP 1.4 and DVI compliant
- 2. Video resolutions up to 1080p@60Hz (YUV4:4:4)
- 3. HDMI High Bit Rate(HBR) audio pass through
- 4. 500ft/150 meters transmission distance over CAT6 cable
- 5. POC (Power over Cable), either TX or RX is powered by one 24V@1A power supply
- 6. Bi-directional infrared control signal transmission
- 7. Bi-directional RS-232 signal transmission

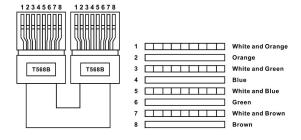
### PACKAGE CONTENTS

- 1x HDMI Extender Transmitter
- 1x HDMI Extender Receiver
- 1x Wideband IR emitter cable
- 1x Wideband IR Receiver cable
- 1x Power Adaptor

User's Manual

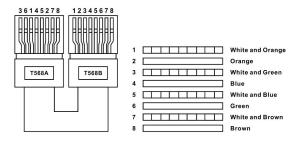
#### CAUTION

The extender needs to follow direct interconnection method with the CAT cable.



Direct interconnection method

If you connect via cross interconnection method, the extender will go into protection mode automatically and will not display any video connection.



Cross interconnection method

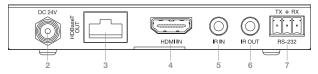
#### PRODUCT OVERVIEW

#### **TRANSMITTER**

#### Front



#### Back

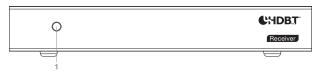


- 1. Power: System power indicator light.
- 2. DC 24V: Connect power adaptor to wall outlet for power supply.
- 3. HDBaseT Out: Standard HDBaseT output port. Connect HDBaseT receiver with a UTP cable following the standard of direct interconnection method.
- 4. HDMI In: Connect to HDMI source device.
- 5. IR In: Channel 2 IR Receiver. Connect to an IR receiver cable.
- 6. IR Out: Channel 1 IR Transmitter. Connect to an IR emitter cable.
- 7. RS-232: Phoenix jack provides serial port control from transmitter to receiver.
- 8. Connection Signal Indicator Lamp:
  - · Illuminated: The Transmitter and Receiver are in good connection status
  - · Flashing: The Transmitter and Receiver have a poor connection status
  - · Off: The Transmitter and Receiver are not connected.
- 9. Data Signal Indicator Lamp:
  - · Illuminated: HDMI signal with HDCP
  - · Flashing: HDMI signal without HDCP
  - · Off: No HDMI signal

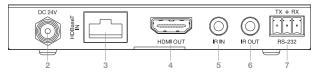
#### PRODUCT OVERVIEW

#### **RECEIVER**

#### Front

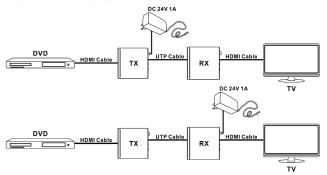


#### Back

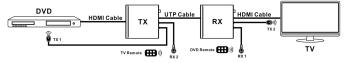


- 1. Power: System power indicator light.
- 2. DC 24V: Connect power adaptor to wall outlet for power supply.
- 3. HDBaseT In: Standard HDBaseT input port. Connect HDBaseT Transmitter with a UTP cable following the standard of direct interconnection method.
- 4. HDMI Out: Connect to HDTV or monitor.
- 5. IR In: Channel 1 IR Receiver. Connect to an IR receiver cable.
- 6. IR Out: Channel 2 IR Transmitter. Connect to an IR emitter cable.
- 7. RS-232: Phoenix jack provide Serial port control signal from transmitter to receiver.
- 8. Connection Signal Indicator Lamp:
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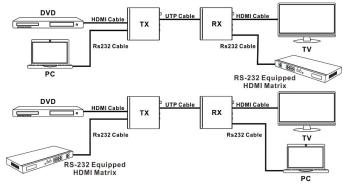
## POC (Power over Cable) Application Example:



Bi-directional Infrared control Application Example:



Bi-directional RS232 control Application Example:



#### SPECIFICATIONS

(Pass-through)

HDMI Compliance : HDMI 1.4 HDCP Compliance : HDCP 1.4 Video Bandwidth : 225MHz

Video Resolution : up to1080P @60Hz YUV4:4:4、RGB4:4:4

Color Space : RGB, YUV4:4:4, YUV 4:2:2

Color Depth : 8-bit

HDMI Audio Format : LPCM 2/5.1/7.1CH, Dolby Digital, DTS 5.1™, Dolby Digital+,

Dolby TrueHD™, DTS-HD Master Audio™,

Dolby Atmos, DTS:X

ESD Protection : ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

nputs : Transmitter:

1x HDMI Type A [19-pin female]
1x IR INPUT [3.5mm Stereo Mini-jack]

1x RS232 [Phoenix jack]

Receiver:

1x HD BaseT In [RJ45]

1x IR INPUT [3.5mm Stereo Mini-jack]

1x RS232 [Phoenix jack]

Outputs : Transmitter

1x HD BaseT Out [RJ45]

1x IR OUTPUT [3.5mm Stereo Mini-jack]

Receiver

1x HDMI Type A [19-pin female]

1x IR OUTPUT [3.5mm Stereo Mini-jack]

Dimension : 4.5" x 2.6" x 0.7" (115 x 65 x 17mm)

Weight : 406g Power Consumption : 5.76W

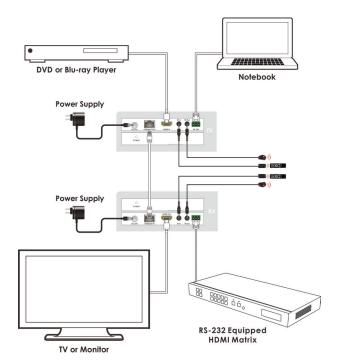
Power Supply : Input: AC100 - 240V 50/60Hz

Output: DC 24V/1A (US/EU standards, CE/FCC/UL certified)

Operation Temperature :  $32^{\circ}F \sim 104^{\circ}F$  ( $0^{\circ}C \sim 40^{\circ}C$ ) Storage Temperature :  $-4^{\circ}F \sim 140^{\circ}F$  ( $-20^{\circ}C \sim 60^{\circ}C$ )

Relative Humidity : 20 ~ 90% RH

## CONNECTION DIAGRAM



#### REGULATORY COMPLIANCE

Notice for FCC



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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifying the equipment without Omnigates' authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This Equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- · Increase the separation between the equipment and receiver.
- · Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- · Consult the dealer or an experienced radio/TV technician for help.

#### **Badio Notice for ECC**

#### Caution

This FCC Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification to said product not expressly approved by Omnigates, including the use of non-approved antennas, could void the user's authority to operate this device.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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