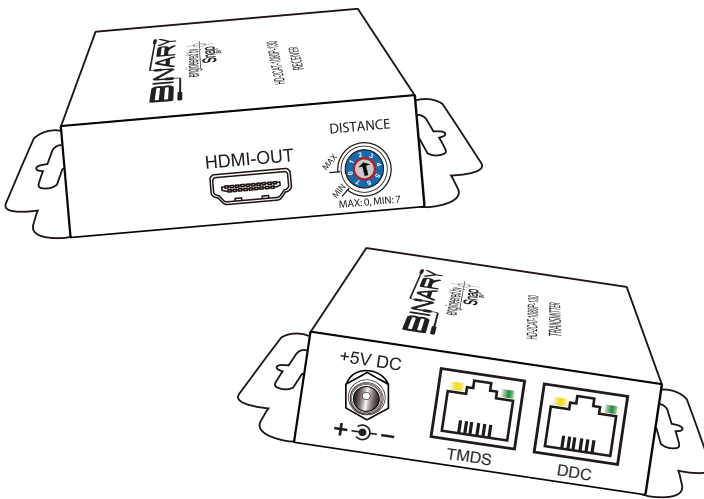# BINARY

engineered by
Snap av

OWNER'S MANUAL   >> Binary™ 2CAT Extender

HD-2CAT-1080P-130

WELCOME TO THE BINARY™ BRAND OF PRODUCTS

This product is engineered to provide years of exceptional reliability. Binary™ is one of the most highly-regarded cable and media distribution brands available today. We appreciate your business and we stand committed to providing our customers with the highest degree of quality and service in the industry.

IMPORTANT SAFETY INSTRUCTIONS

1. Read and follow all instructions and warnings in this manual.
   Keep for future reference.

2. Do not install near any heat sources such as radiators, heat registers, stoves
   or other apparatus (including amplifiers).

3. Do not install the unit near water or where moisture is present.

4. Clean with a dry cloth.

5. Unplug this apparatus during lightning storms or when unused for long
   periods of time.

6. Protect the power cord from being walked on or pinched particularly at plug,
   convenience receptacles, and the point where it exits from the apparatus.

7. Refer all servicing to qualified service personnel. Servicing is required when the
   apparatus has been damaged in any way, such as when the power-supply cord
   or plug is damaged, liquid has been spilled or objects have fallen into the
   apparatus, the apparatus has been exposed to rain or moisture, does not
   operate normally, or has been dropped.

8. To completely disconnect this equipment from the AC mains, disconnect
   the power supply cord plug from the AC receptacle.

CAUTION: To reduce the risk of electrical shock, inspect the premises carefully.
Do not use the unit if proper equipment grounding cannot be verified.

PACKAGE CONTENTS

• (1) Transmitter

• (1) Receiver

• (4) Mounting Screws

• (8) Rubber Feet

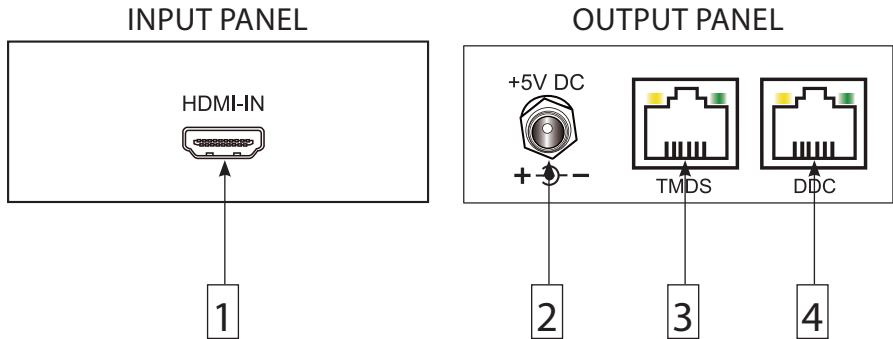• (1) 5V DC 2A Power supply

• (1) User manual

INTRODUCTION

The HD-2CAT-1080P-130 extends HDMI® over two Cat5e/6 cables allowing video and audio transmission.

FEATURES

- HDMI 1.3c compliant
- Extend the transmission up to 200 ft. from the HDMI source at HD 1080i or 720p 24-Bit on Cat6
- Extend the transmission up to 166 ft. from the HDMI source at Full HD 1080p 24-Bit on Cat6
- HDCP compliant
- Maximize adjustable 8-level equalization control
- Uncompressed 7.1 channel digital HDMI over Cat5e/6 cable transmission
- DTS-HD Master and Dolby TrueHD audio support
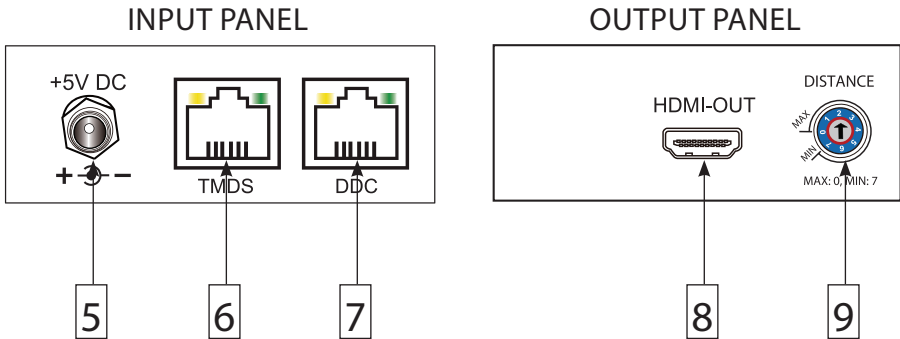- Wall-mountable housing design for easy installation

Note: The transmission distance is subject to the grade of installed cable(s), source device, and display. Any keystone jack along the transmission path will reduce the transmission performance significantly.

INPUT PANEL	OUTPUT PANEL

TRANSMITTER

NOTE: Transmission distance up to 200 feet at 1080i on Cat6, 165 feet at 1080p on Cat6, and 130 feet at 1080p on Cat5e (24-Bit).

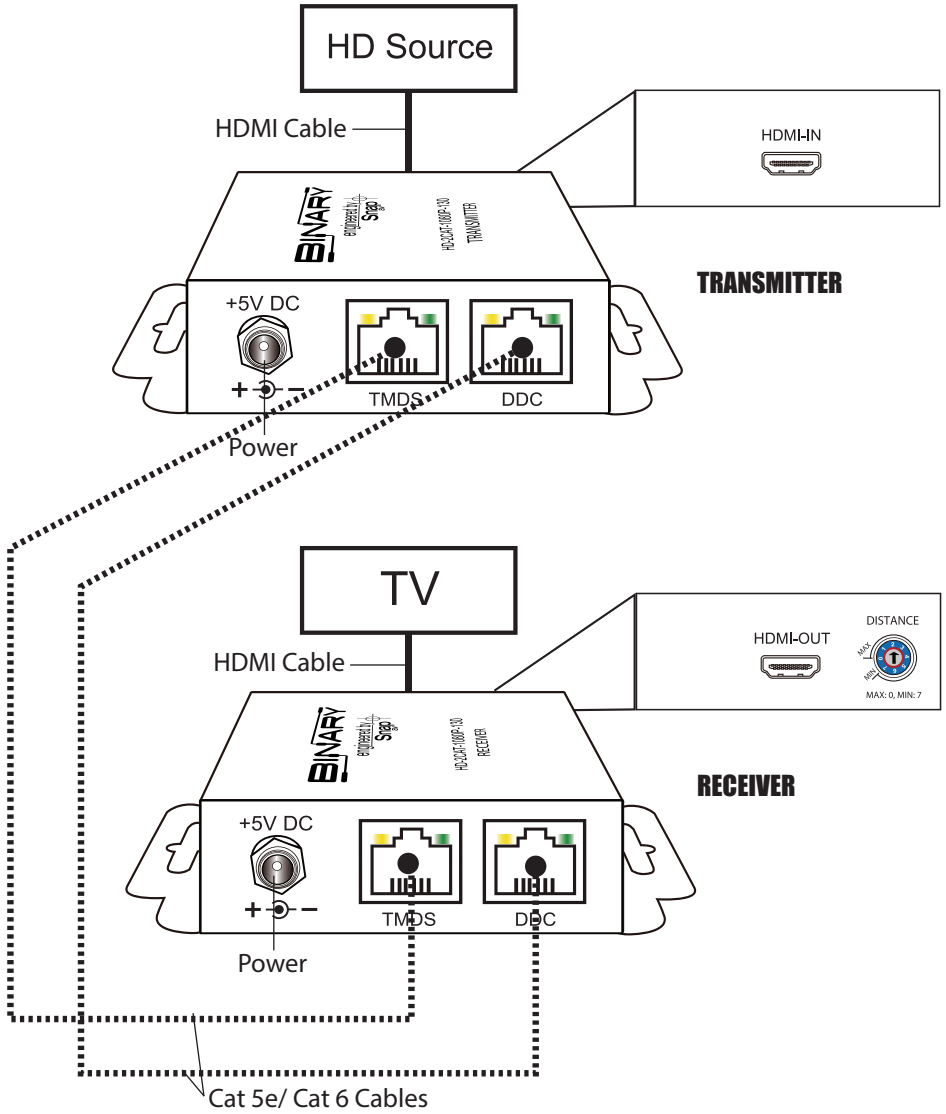**1. HDMI IN:** Connect to a HDMI source with a HDMI male-to-male cable

2. Latch-locking power jack: Connect to 5V DC power supply.

3. TMDS: Transmission Minimized Distance Signal (Audio/Video)

4. DDC: Display Data Channel (Data)

INPUT PANEL

OUTPUT PANEL

+5V DC

TMDS   DDC

HDMI-OUT

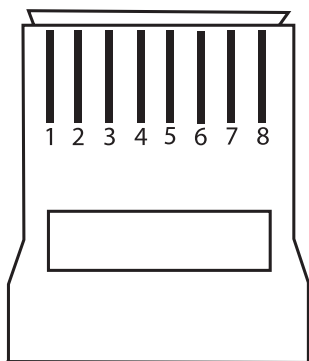DISTANCE

MAX: 0, MIN: 7

5   6   7

8   9

RECEIVER

5. Latch-locking power jack: Connect to 5V DC power supply.

6. TMDS: Transmission Minimized Distance Signal (Audio/Video)

7. DDC: Display Data Channel (Data)

8. HDMI OUT: Connect to a HDMI display with a HDMI male-to-male cable

9. Rotary control: Adjust the 8-level equalization control to the received HDMI signals. The HDMI signal level varies from 0 (strongest) to 7 (weakest) for respective transmission length from longest possible range to short distance. Adjust the signal level from 7 to 0 and stop turning the rotary switch when the audio/video is playing normally. Inappropriate signal level setting may cause an overpowering issue that would shorten the product life significantly.

SET-UP

HD Source

HDMI Cable

HDMI-IN

BINARY

HD-DLXCAT-100EP-100
TRANSMITTER

TRANSMITTER

+5V DC

+ −

TMDS   DDC

Power

TV

HDMI Cable

HDMI-OUT

DISTANCE

MAX

MIN

MAX: 0, MIN: 7

BINARY

HD-DLXCAT-100EP-100
RECEIVER

RECEIVER

+5V DC

+ −

TMDS   DDC

Power

Cat 5e/ Cat 6 Cables

INSTALLATION

1. Test all associated equipment and cables in the system for proper operation. Turn off all power before proceeding.

2. Make sure the HDMI cables being used do not exceed 1.0M (3.28 ft) and are at least 26 AWG. Any length longer than this may cause intermittence issues. To ensure maximum performance, use high-quality HDMI cables capable of transmitting 1080p signals.

3. Determine the best placement of the unit based on how it will be incorporated into the system design. Leave enough room to reach the EQ adjustment after installation.

4. Make sure both CAT5e or CAT6 cables are properly terminated (EIA/TIA-568B is recommended) and connected as shown in the diagram to the left. For proper connection, see pin-out diagram below. Both Cat cables must be connected.

5. Connect the HDMI cables as shown in the diagram to the left.

6. Turn on all associated equipment, plug in the 5V DC power, to either the transmitter or receiver, and verify that the signal LEDs are illuminated. Note: There is no need to power both units, only one power connection is needed.

7. If a flickering, blinking, or snowy image is seen, adjust the EQ dial to improve the cable signal. An EQ set to zero "0" stands for the strongest signal for longer cable lengths, while 7 is for short cable lengths. Try adjusting the EQ from 7 to 0 until picture is clear.

8. Once you have a picture, turn clockwise towards 7 until you no longer have a picture; adjust counter clockwise until picture comes back. This will ensure you have reached the optimal setting.

Gold Pins Facing Up

Cat5e/6 EIA/TIA-568B

- Pin 1 - White / Orange
- Pin 2 - Orange
- Pin 3 - White / Green
- Pin 4 - Blue
- Pin 5 - White / Blue
- Pin 6 - Green
- Pin 7 - White / Brown
- Pin 8 - Brown

SPECIFICATIONS

Technical	Transmitter	Receiver
HDMI Compliance	HDMI 1.3c	
Video Bandwidth	Single-link 225MHz (6.75Gbps)	
Video Support	480i / 480p / 720p / 1080i / 1080p up to 36-bit color	
HDMI over UTP Transmission (24-bit)	Full HD (1080p)-130ft (CAT5e) / 165ft (CAT6) HD (720p/1080i)- 164ft (CAT5e) / 200ft (CAT6)	
Audio Support	Surround sound (up to 7.1ch) or stereo digital audio	
Signal Equalization	8-level digital control at RX	
Input TMDS Signal	1.2 Volts (peak-to-peak)	
Input DDC Signal	5 Volts (peak-to-peak, TTL)	
Input	1x HDMI	2x RJ45
Output	2x RJ45	1x HDMI
HDMI Connector	Type A (19-pin female)	
RJ45 Connector	WE/SS 8P8C 2 LED indicators	
Rotary Control Switch	—	Signal level
Mechanical		
Housing	Metal enclosure	
Dimensions (L x W x H)	3.3" x 3.6" x .94"	
Weight	.77 lbs each	
Power Supply	5V DC 2A	
Power Consumption	1.5 Watt (max)	

*Note: Specifications are subject to change without notice. Dimensions and weight are approximate.

WARRANTY

2-Year Limited Warranty
This Binary™ Product has a Two-Year Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products which have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to SnapAV or a designated service center with prior notification and an assigned return authorization number (RA).

For Technical Support: 1-866-838-5052