



COH-TX & COH-RX

HDMI to Optical Transmitter and Receiver



Operation Manual

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Version 1.1 August 2011

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
VS1	20/03/12	First Release



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1. INTRODUCTION

With HDMI becoming more and more popular around the world, many consumers have been searching for a way to transmit HDMI signals over very long distances. The HDMI to Optical Transmitter and Receiver set which uses fiber optical cables will give you longer transmission distances (up to 300m) while also providing you with thinner, lighter cables for easier installation. With this system the HDMI signal is not compressed and is fully compliant with HDMI and HDCP.

2. APPLICATIONS

- Digital signage, airport displays, advertising, video walls or special events
- Surveillance systems

3. PACKAGE CONTENTS

- HDMI to Optical Transmitter
- Optical to HDMI Receiver
- 2 x 5V DC Power Adaptors
- Operation Manual

4. SYSTEM REQUIREMENTS

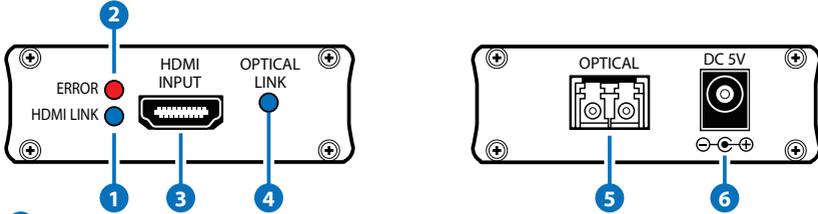
Input source devices such as DVD or Blu-ray players with HDMI cables and output display devices such as HDTVs and monitors equipped with HDMI ports.

5. FEATURES

- HDMI v1.2, HDCP and DVI compliance
- Long transmission distances - up to 300m or more
- Thinner and lighter cables for easier, more discreet installations
- Faster data transmission
- Lower power consumption
- Support the reading of EDID information

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Transmitter Front and Rear Panels



1 HDMI LINK

This blue LED will illuminate when at least one optical cable is connected and has successfully detected and sent, between the Transmitter and Receiver, a signal containing video or audio data.

2 ERROR

This red LED will illuminate when there appears to be an error in the input signal data rate that is higher than 75MHz or the HDMI output signal is not compatible.

3 HDMI INPUT

Connect to an HDMI input source such as a DVD or Blu-ray player with a HDMI cable.

4 OPTICAL LINK

This blue LED will illuminate when the optical cable is connected and has successfully detected and communicated data between the Transmitter and Receiver.

Note: If the LED is not illuminated then users will need to check the connection of the fiber cable between the Transmitter and Receiver units and then check the connection is good and that the cable itself is correct and undamaged.

5 OPTICAL

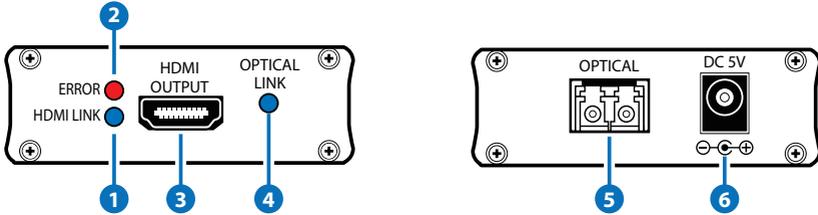
Connect the Transmitter and Receiver units with fiber optical cable to transmit the data signal.

Note: Connector Type: LC-LC, Fiber: Duplex Multi-mode Fiber

6 DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet. The LED will switch on when the power cable is plugged in.

6.2 Receiver Front and Rear Panels



1 HDMI LINK

This blue LED will illuminate when at least one optical cable is connected and has successfully detected and sent, between the Transmitter and Receiver, a signal containing video or audio data.

2 ERROR

This red LED will illuminate when there appears to be an error in the input signal data rate that is higher than 75MHz or the HDMI output signal is not compatible.

3 HDMI OUTPUT

Connect to an HDMI Display device, such as a TV or monitor, with a HDMI cable.

4 OPTICAL LINK

This blue LED will illuminate when the optical cable is connected and has successfully detected and communicated data between the Transmitter and Receiver.

Note: If the LED is not illuminated then users will need to check the connection of the fiber cable between the Transmitter and Receiver units and then check the connection is good and that the cable itself is correct and undamaged.

5 OPTICAL

Connect the Transmitter and Receiver units with fiber optical cable to transmit the data signal.

Note: Connector Type: LC-LC, Fiber: Duplex Multi-mode Fiber

6 DC 5V

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet. The LED will switch on when the power cable is plugged in.

7. SUPPORT TIMING CHART

7.1 TV Timing

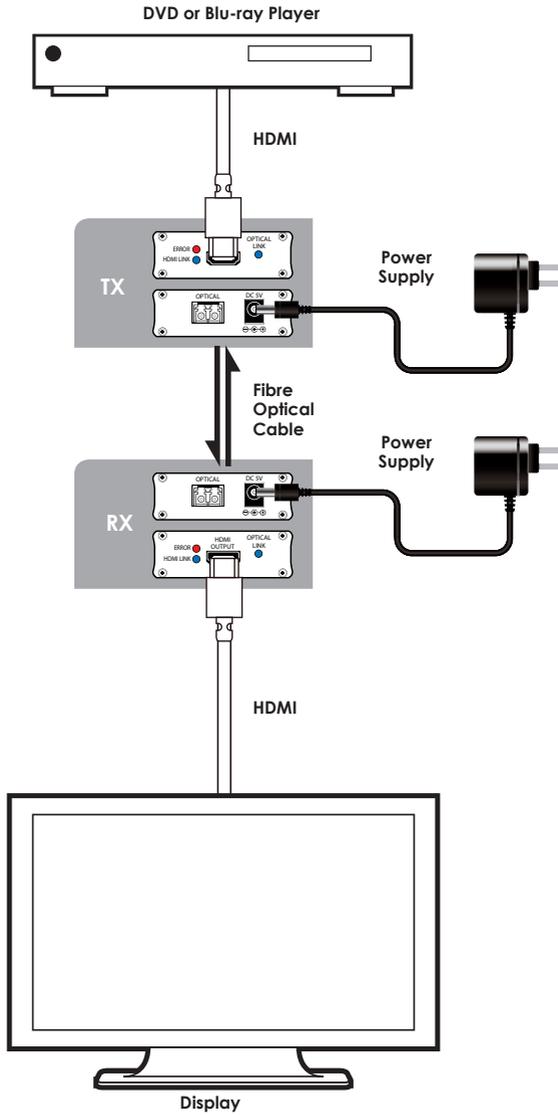
NO.	Formats	Field Rate	Picture Aspect Ratio
1	720x480p	59.94Hz/60Hz	4:3
2	720x480p	59.94Hz/60Hz	16:9
3	1280x720p	59.94Hz/60Hz	16:9
4	1920x1080i	59.94Hz/60Hz	16:9
5	720(1440)x480i	59.94Hz/60Hz	4:3
6	720(1440)x480i	59.94Hz/60Hz	16:9
7	720x576p	50Hz	4:3
8	720x576p	50Hz	16:9
9	1280x720p	50Hz	16:9
10	1920x1080i	50Hz	16:9
11	720(1440)x576i	50Hz	4:3
12	720(1440)x576i	50Hz	16:9
13	1920x1080p	23.97Hz/24Hz	16:9
14	1920x1080p	25Hz	16:9
15	1920x1080p	29.97Hz/30Hz	16:9



7.2 PC Timing

Pixel Format	Refresh Rate	Horizontal Frequency	Pixel Frequency	Standard Type
640 x 350	85 Hz	37.9 kHz	31.500 MHz	VESA Standard
640 x 400	85 Hz	37.9 kHz	31.500 MHz	VESA Standard
720 x 400	85 Hz	37.9 kHz	35.500 MHz	VESA Standard
640 x 480	60 Hz	31.500 kHz	25.175 MHz	Industry Standard
800 x 600	60 Hz	37.9 kHz	40.000 MHz	VESA Guidelines
1024 x 768	60 Hz	48.4 kHz	65.000 MHz	VESA Guidelines
1280 x 720	60Hz	37.9KHz	40.000MHz	VESA Guidelines
1280 x 768	60Hz	37.9KHz	40.000MHz	VESA Guidelines

8. CONNECTION DIAGRAM





9. SPECIFICATIONS

Optical Fiber	Duplex MM62.5/125um, LC-LC Connector
Transmitter	
Input Port	1 × HDMI
Output Port	1 × Duplex Multi-mode Optical
Receiver	
Input Port	1 × Duplex Multi-mode Optical
Output Port	1 × HDMI
HDMI In/Out Cable	Up to 10 Meters
Distance	
Optical In/Out Cable	Up to 300 Meters
Distance	
ESD Protection	Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Power Consumption	5 V/1.25 A DC (US/EU Standards, CE/ FCC/UL certified)
Dimensions	114 mm (W) × 65 mm (D) × 26 mm (H)/ Each
Weight	200 g/Each
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0 °C ~ 40 °C/32 °F~104 °F
Storage Temperature	-20 °C~60 °C/-4 °F ~ 140 °F
Relative Humidity	20~90% RH (non-condensing)
Power Consumption	3.5W (each)

10. ACRONYMS

ACRONYM	COMPLETE TERM
HDCP	High-bandwidth Digital Content Protection
HDMI	High Definition Multimedia Interface



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