PRO-HDMIFO-4K

HDMI to Optical Transmitter & Receiver kit
(4K Resolution Support)

OPERATION MANUAL

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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	SUMMARY OF CHANGE
v1.00	15/11/2013	First release

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1. INTRODUCTION

The PRO-HDMIFO-4K is a Transmitter and Receiver set for sending Ultra High Definition 4K HDMI signals over long distances via Fiber Optic cabling. Connect a HDMI source to the Transmitter unit and the uncompressed signal will be passed over fiber optic to the Receiver where it is outputted as HDMI for connection to the display. HDMI Transmission distances of up to 300m can be achieved using this advanced fiber optic technology.

2. APPLICATIONS

- Digital signage
- Airport signage
- Advertising displays
- Video wall displays
- Surveillance systems
- Residential Installations

3. PACKAGE CONTENTS

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

4. SYSTEM REQUIREMENTS

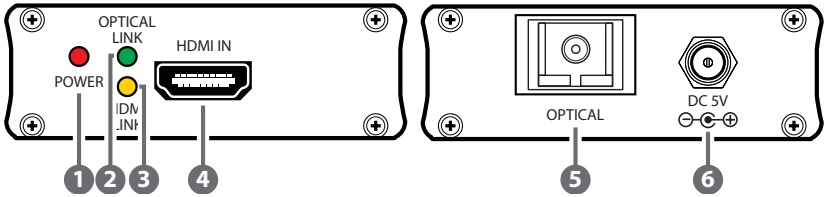
Source device such as a DVD or Blu-ray player with HDMI cables and output displays such as HDTV's and Monitors with HDMI ports.

5. FEATURES

- HDMI v1.4, HDCP and DVI compliant
- Long distance transmission up to 300m with OM3 50/125um cable
- Fast data transmission
- FPGA-based solution
- Supports EDID reading
- Supports HD resolutions: 480i to 1080i, plus 1080p24/25/30, and 2K x 4K
- Supplied with Locking PSU
- High Definition Audio supported: Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio plus LPCM
- Supports 3D signalsSupports the reading of EDID information

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Transmitter Front and Rear Panels



1 POWER LED:

This LED will illuminate when connected to an AC wall outlet.

2 OPTICAL LINK LED:

The LED will illuminate when the optical cable is connected and has successfully detected and communicated data between the Transmitter and Receiver. If the LED is not illuminated then check that the fiber optic cable is properly connected and that the cable itself is undamaged.

3 HDMI LINK LED:

This LED will illuminate when the Transmitter unit is receiving a HDMI signal from the source device.

4 HDMI INPUT:

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

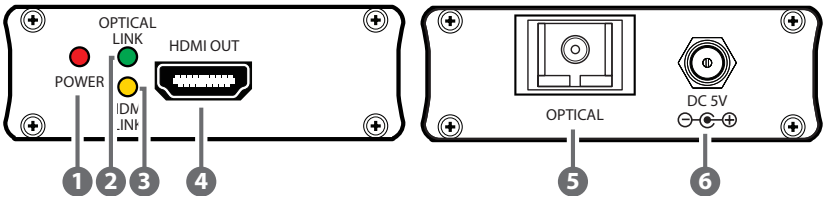
5 OPTICAL:

Connect the SC-SC multi-mode optical cable to the Transmitter and Receiver units.

6 DC 5V:

Connect to the power adaptor included in the package to an AC wall outlet for power supply.

6.2 Receiver Front and Rear Panels



1 POWER LED:

This LED will illuminate when connected to an AC wall outlet..

2 OPTICAL LINK LED:

The LED will illuminate when the optical cable is connected and has successfully detected and communicated data between the Transmitter and Receiver. If the LED is not illuminated then check that the fiber optic cable is properly connected and that the cable itself is undamaged.

3 HDMI LINK LED:

This LED will illuminate when the device is successfully communicating with the display.

4 HDMI OUTPUT:

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

5 OPTICAL:

Connect the SC-SC multi-mode fiber optical cable to the Transmitter and Receiver units.

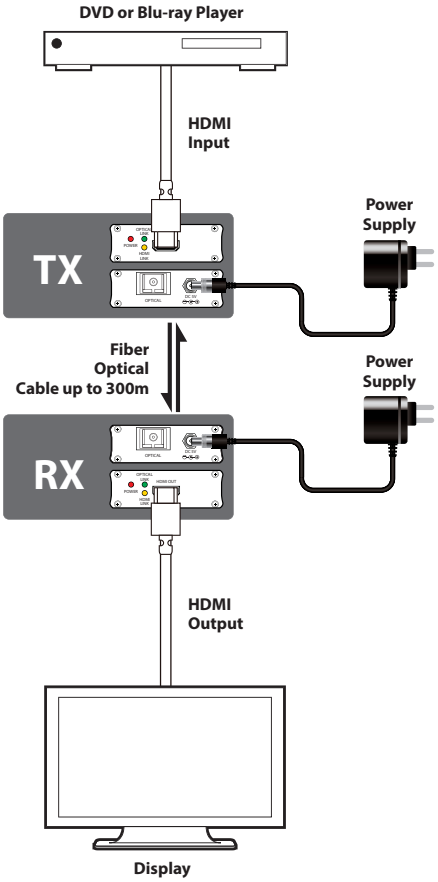
6 DC 5V:

Connect to the power adaptor included in the package from the AC wall outlet for power supply.

7. SPECIFICATIONS

Video Bandwidth	340 MHz/10.2 Gbps
Optical Fiber	OM3 50/125um, SC-SC connector
Transmitter	
Input Port	1×HDMI
Output Port	1×Multi-mode Fiber Optical
Receiver	
Input Port	1×Multi-mode Fiber Optical
Output port	1×HDMI
Resolution Support	PC: VGA ~ WUXGA HD: 3D & 480i ~ 1080p (50/60 Hz), 4K×2K (24/25/30 Hz)
HDMI In/Out Cable Distance	Up to 10m (In) and 10m (Out) at 8-bit Up to 6m (In) and 6m (Out) at 12-bit
Optical Cable Distance	Up to 300 Meters with OM3 50/125um optical fiber cable
Power Supply	5V/2.6A DC (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human Body Model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Dimensions	65.5mm (W) x 125.5mm(D) x 21.6mm(H)/ Each
Weight	200 g/Each
Chassis Material	Aluminum
Colour	Black
Operating Temperature	0 °C ~ 40 °C
Storage Temperature	−20 ˚C ~ 60 ˚C / −4 ˚F ~ 140 ˚F
Relative Humidity	20 ~ 90 % RH (non-condensing)
Power Consumption	1.5 W (TX), 1.3 W (RX)

8. CONNECTION AND INSTALLATION



9. ACRONYMS

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

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