

# Stretch HDMI<sup>™</sup> HDMI 2.0 Active Optical Cable



User Manual LHM2-N

Doc No.: OEC-H230106-L1 / Ver 1.2

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### Welcome!

Congratulations on your purchase of the *Stretch* HDMI<sup>™</sup> LHM2-N, Active Optical Cable for HDMI 2.0. This manual contains information that will assist you in installing and operating the product.

OPTICIS active optical HDMI 2.0 cable, LHM2-N is designed for critical display applications that demand flawless HDMI signal integrity and it provides transparent signal transmission over plenum graded, LSZH graded, or TPU hybrid cable.

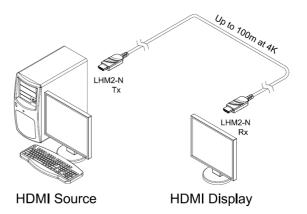
LHM2-N enables to deliver 4K DCI (4096x2160) at 60Hz signal up to 100m (384ft) with non-detachable cable. It avoids any scaling or data compression for lessening a burden of data transmission.

LHM2-N series give slim, light, easy installation like a general copper HDMI cable. It holds firmly distinctive performance advantage as it requires absolutely no external power to operate. It solely utilizes TX and RX of the cable to function without any additional setting requirements.

# **Product Description**

# **Shipping Group**

- ☐ LHM2-N, Active Optical Cable: One (1) unit, length as you inquire.
- □ User Manual



### 1-1 Welcome, Product Description

# **System Requirements for Setup**

### □ Hardware requirements

- You must have a HDMI display source (Media player, PC or laptop). It should support the maximum graphic resolution feature of Display (TV, Monitor or Projector) to be connected.
- No special requirements memory size, CPU speed and chipsets, if you've already properly installed your HDMI systems.

### □ Software requirements

- No special restrictions, if you've already properly installed your
   HDMI / DVI systems.
- AC/DC Power Adapter Technical Advisory

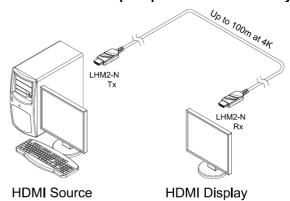
The LHM2-N is designed to use +5V internal power supplied through a HDMI pin (#18) on the graphic source port.

Note that if either of Display source or Display does not support HDMI 2.0 standard, LHM2-N would not transmit HDMI 2.0 signal. Just like copper cable, transmitting information will follow lower resolution of the two.

(Example: 4K Display source – 2K Display → 2K resolution, 2K Display source – 4K Display → 2K resolution)

### Installation

Important: Please use the installation procedure below. Improper or no operation may result if the start-up sequence is not correctly followed.



**Step 1**Carefully unpack the contents of the shipping group.

### Step 2

Directly plug the TX side into the HDMI receptacle of HDMI source (Media player, PC or laptop) without powering up of the devices. It is **NOT** recommended for customer to use any intermediate cable or adapter between them. It may deteriorate the signal transmission performance.

### Step 3

Plug the RX side into the HDMI receptacle of a HDMI Display. It is **NOT** recommended for customer to use any intermediate cable or adapter between them. It may deteriorate the signal transmission performance.

### Step 4

Power ON the device of a HDMI source and a Display

# Step 5

If the system does not work properly, go to page 1-4, trouble shooting.

<u>Note:</u> LHM2-N can utilize either the +5V power supplied through a HDMI pin (#18) from the HDMI source or the +5V power adapter.

<u>Note:</u> Do not use electric screw driver to tighten the screw. Excessive force on screw may damage the product.

Note: Do not pull the cable with excessive force.

**Note:** This cable is directional cable. Please be cautious with the direction.

**Note:** Do not bent the neck (strain relief) of the cable too much.

### 1-3 Installation

# **Troubleshooting**

# The display shows black screen.

Ensure that the HDMI ports are firmly plugged into the HDMI source and display. Ensure that the TX and RX modules are plugged correctly to the HDMI source and display respectively, the label on the cable guides which side to insert.

Check if the HDMI source and display are powered on and properly booted. Reset the system by de-plugging and re-plugging the TX HDMI port or RX HDMI port.

Re-boot up the system while connecting the optical HDMI cable system.

Check if the cable or its jacket is not physically damaged.

Check if the cable is not bent or kinked.

### Screen is distorted or displays noises.

Ensure connections of both plugs while disconnecting and reconnecting the optical HDMI cables.

### Maintenance

No special maintenance is required for the optical HDMI cables. Ensure that the cables and power modules are stored or used in a benign environment free from liquid or dirt contamination.

There are no user serviceable parts. Refer all service and repair issues to Opticis.

# **Technical Support and Service**

For commercial or general product support, contact your reseller. For technical service, contact Opticis by email <a href="mailto:info@vigillink.com">info@vigillink.com</a> or visit its website at <a href="https://www.vigillink.com">www.vigillink.com</a>

# **Product Specifications**

### LHM2-N, HDMI 2.0 Active Optical Cable

Supports HDMI 2.0 Standards
Extends up to 4K (4096x2160) at 60Hz (RGB & YCbCr : 4:4:4)
Transmits HDMI 2.0 data up to 100m(328feet) over hybrid cable
Cable Options:
-LHM2-NPxx : Plenum Jacket
-LHM2-NLxx: LSZH Jacket
-LHM2-NTxx:TPU Jacket
*Note: "xx" stands for the length of the cable.
Ex: 10m of LHM2-NP → LHM2-NP10 ("A0" for 100m)
Operated by HDMI source without external power
Supports 3D contents transmission
Complies with CEC, EDID and HDCP 2.2
<b>Supports</b> HDR at 10 bit or 12 bit speeds respectively within its maximum bandwidth, 18Gbps
Cable Tensile load: 500N ■ Minimum bending radius: 6mm ■ Outer diameter of cable: 3.4mm (±0.2)
Mechanical specifications of TX and RX module parts ■ Dimensions: 64.2mm / 19.6mm / 11.2mm (L/W/H)
Environmental Specifications  ■ Operating temperature: 0°C to 50°C  ■ Storage temperature: - 30°C to 70°C

Operating humidity: 5% to 85%

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# **Optolinks**

# Headquarters

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For order support, please contact your Distributor or Reseller.

For technical support, check with the our website <a href="www.vigillink.com">www.vigillink.com</a> or contact <a href="mailto:info@vigillink.com">info@vigillink.com</a>