# Mini 4K HDMI Video to Fiber Optical Converter

### Overview

Mini 4K HDMI Fiber Converter is developed by our company itself, with independent intellectual property rights. Absorbed the advantages of similiar products at home and abroad ,combined with the actual demand of the market ,through one core/two core optical fiber transmission of 4K30Hz HDMI video signal ,to achieve no delay , no compression ,high-quality signal extension of 1km.

Mini HDMI1.4 optical converter adopts the integrated video processing and photelectric conversion design ,high integration degree, small volume, its optical devices and core circuits and both improted components ,perfomance stability ,suitable for different working environments .

The Mini HDMI1.4 fiber converter meets the international standard HDCP protocol 1.4, automatically recognizes the EDID, has the power-off EDID memory storage function ,and is downward compatible with version1.3/1.2.

Mini HDMI fiber converter power consumption is less than 1.5W, using mico-USB port power supply , support charge bank mobile power supply , strong flexibility in use.

### Appearance



### Features

- 1.Maximum support 4096\*2160@30Hz and downward compatible
- 2.Support standard HDM11.4 HDCP1.4

- 3.Support DDC CEC HPD signal
- 4.Support RGB&YCBCR4:4:4 YUV4:4:4 ,4:2:2 ,4:2:0
- 5.EDID transparent transmission
- 6.Support Single /Dual Fiber single mode transmission 1km
- 7.Delay < 2 ms
- 8.Support for hot plug
- 9.Support power-off EDID memory storage function
- 10.Support power bank charger

# **Technical Indexes**

| Parameter                  | Specifications                                |  |  |
|----------------------------|---|--|--|
| Rate per channel           | 10Gbps  |  |  |
| Power consumption          | <1.5W   |  |  |
| Power supply               | 5V  |  |  |
| Maximum resolution         | 4096*2160@30Hz                                |  |  |
| Refresh frequency          | Up to 30 Hz                                   |  |  |
| Color depth                | Up to 48-bit                                  |  |  |
| Wavelength                 | Dual Fiber 1310nm , single fiber 1310nm1550nm |  |  |
| Bit Error Rate Performance | 1.00E-12                                      |  |  |
| Laser output power         | TX power >-3 db                               |  |  |
|                            | RX Sensitivity >-10 db                        |  |  |
| Dimensions                 | 79*20*10mm                                    |  |  |
| Packing size               | 210*160*46mm                                  |  |  |
| Weight                     | 0.25kg/pair                                   |  |  |
| Electrical Interface       | 19 Pins HDMI Type Port                        |  |  |
|                            | 5 Pins USB Standard B                         |  |  |
| Operating temperature      | Working Temperature: -20°C ~70°C              |  |  |
|                            | Storage Temperature: -40°C ~85°C              |  |  |

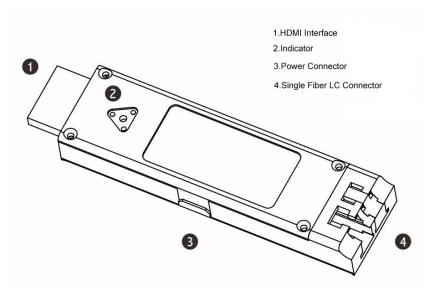
# Packing list

| HL-MN-4KMI-1V-TL      | Transmitter | 1 pcs |
|-----------------------|-------------|-------|
| HL-MN-4KMI-1V-RL      | Receiver    | 1 pcs |
| Micro-USB interface - | +5V adapter | 2 pcs |

#### User's Manual

Please check carefully whether the above items are included , If any item(s) missing, please contact the manufacturer.

## **Indicator Status Description**



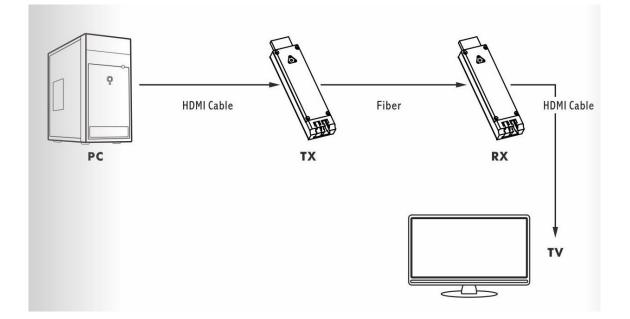
Transmitter powered on ----- red light

Receiver powered on ----- red light

Transmitter video input ----- purple light

Fiber signal status —— purple light (if red light is on means no fiber signal)

# **Connection Diagram**



## Link Steps

- 1. HDMI optical transmitter connect to HDMI video sources
- 2. HDMI optical transmitter insert to LC fiber
- 3. HDMI optical transmitter USB plug in to +5V power supply
- 4. HDMI optical receiver connect to monitor
- 5. HDMI optical receiver insert to LC connector and connect to HDMI optical transmitter
- 6. HDMI optical receiver USB plug in to +5V power supply

# **Ordering Information**

| Model Number     |                    |            |                       |                 |
|------------------|--------------------|------------|-----------------------|-----------------|
| Transmitter      | Receiver           | Fiber Mode | Transmission Distance | Fiber Connector |
| HL-MN-4KMI-1V-TL | HL-MN-4KHDMI-1V-RL | SM /SF     | 1km                   | LC              |
| HL-MN-4KMI-1V-TL | HL-MN-4KHDMI-1V-RL | SM /DF     | 1km                   | LC              |

#### Note:

- The Optical Power Budget data fit Mulit-mode(62.5/125m), Single-Mode(9/125m).
- Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.
- Maximum transmission distance is also limited by fiber bandwidth.

• Power adapter is manufactured by third party and is supplied with fitted screw-terminal output cables.Power adapter is compatible with (for standalone) US, European, UK or Australian power plug.