

# HDMI 2.0 18Gbps Fiber Extender



MODEL **LK2**

- Lossless transmission by 4K@60Hz 4:4:4 Dolby Vision
- HDMI2.0, HDCP2.2 compliant
- Highest resolution 4096x2160P@60Hz 4:4:4
- Fiber optical bandwidth 18Gbps
- LC fiber connector, transmission over single optical line
- Support signal/multi mode fiber, transmit up to 300m with HDCP, 2km with single mode fiber without HDCP
- Support bi-directional IR and transparent RS-232
- EDID Pass-through
- 12V power supply with locker

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# INTRODUCTION

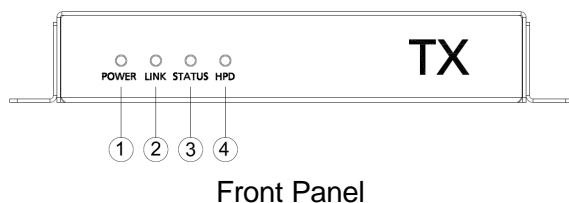
LK2 is a HDMI2.0 18Gbps fiber optical extender. Supporting uncompressed 4K UHD resolution at 4K@60Hz 4:4:4 with HDCP 2.2 on the distance up to 300m. Signals are transferred over a single optical line with either singlemode or multimode fiber.

The extender pair is using CWDM technology with 6 wavelength lasers in the extender pair. The data rate of the 1270nm/1290nm/1310nm/1330nm lasers are 6Gb/s, these 4 CWDM lasers transmit the HDMI TMDS signal from TX to RX unit. The 1490nm/1550nm laser data rate is 1.25Gb/s, which transmit the EDID,HDCP,IR and RS232 signal Bi-directionally.

LK2 support both HDR and Dolby Vision in the HDMI signal. It's the perfect solution for smart home audio visual system, UHD Public video system, outdoor remote transmission and so on.

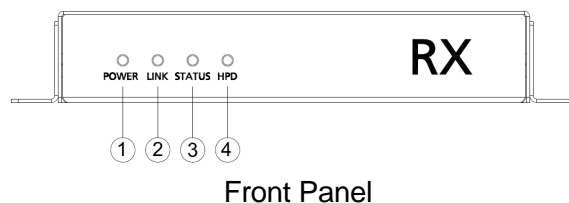
## PANEL DESCRIPTION

### Transmitter:

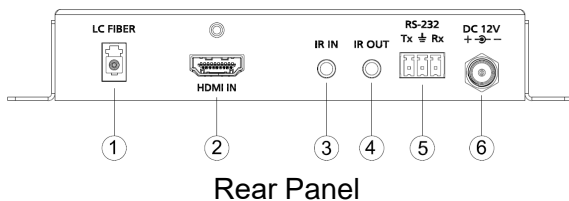


- ① Power LED indicator
- ② Optical Signal Link LED indicator
- ③ HDMI Source connection LED indicator
- ④ HPD Signal LED indicator

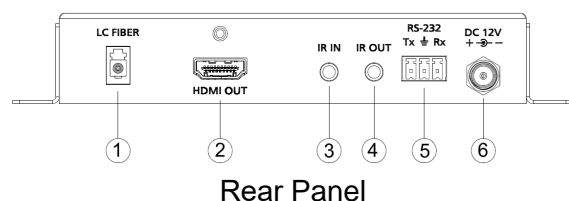
### Receiver:



- ① Power LED indicator
- ② Optical Signal Link LED indicator
- ③ HDMI Source connection LED indicator
- ④ HPD Signal LED indicator

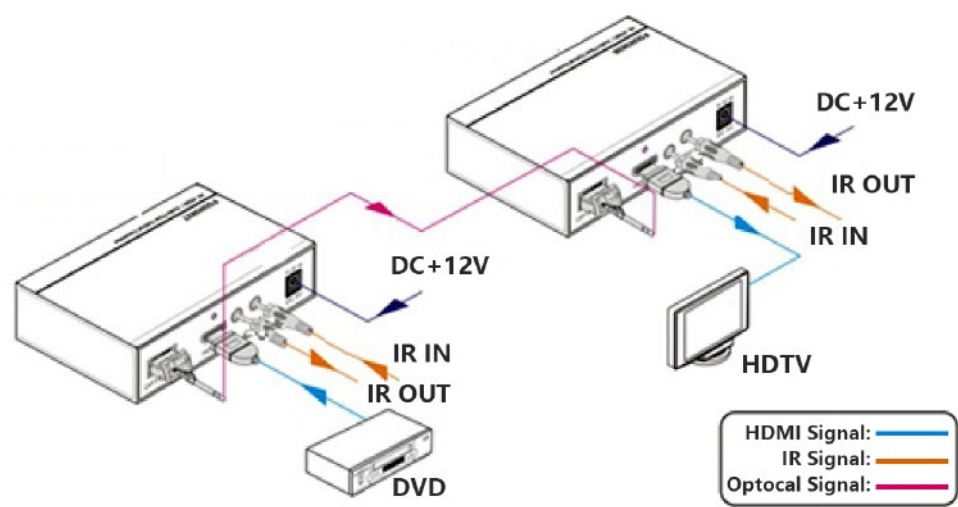


- ① 1 XLC Fiber Connector
- ② HDMI female Connector
- ③ IR IN
- ④ IR OUT
- ⑤ RS 232
- ⑥ DC +12V Power Supply



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# CONNECTION DIAGRAM



# SPECIFICATION

Input	HDMI 2.0, HDMI 1.x and DVI 1.0 compliant	
Resolution	4K x 2K@60 (Downward Compatible)	4096x2160@60Hz(DCI 4K60)   3840x2160@60(4K60 4:4:4)   3840x2160@30(4K30 4:4:4)
Components	Laser Diodes	1270/1290/1310/1330nm 10Gb/s CWDM DFB Lasers 1490nm/1550nm 1.25Gb/s CWDM DFB lasers
	Photo Diodes in Rx Module	1100nm~1620nm PIN Photo Detector
	WDM filter	Integrated 1270nm/1290nm/1310nm /1330nm/1490nm/1550nm filter
Electrical	Input and Output Signals	TMDS Level (complying with HDMI2.0)
	Data Transfer Rate (Graphic Data)	Max. 10.0Gbps
	Maximum Video Bit Rate	18Gb/s
	Total Jitter at the end of Rx output	Max. 0.6UI
	Skew inter-channels	Max. 2ns
Optical	Link Power Budget	Min 8dB
Mechanical	Module dimension (mm)	162WX85LX26H
Connector	Optical Connector	1X LC connector
	Systems and to Displays	HDMI Female
	Recommended Fiber	OM3 Multi-mode Fiber or Single-mode Fiber
Extend Distance	Maximum 300m	4K x 2K@60Hz(4:4:4) with HDCP
	Maximum 2km	4K x 2K@60Hz(4:2:0) without HDCP

