



LM-EX100-4K2K HD extender
(HDBaset 100M)

User Manual

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1th Security considerations:

Please read all of the instructions, and then attempt to install or operate the equipment, and to comply with the following notes:

- * Please follow all warnings and instructions marked on this product
- * Do not allow this machine to be caught in the rain or splash or soak into any liquid.
- * Do not put any objects into the housing slots in the machine in order to avoid damage to the internal parts of the machine
- * Do not attempt to repair or open the machine housing, so as to avoid electric shock.
- * The equipment housing may be equipped with heat dissipation and ventilation slots to prevent overheating, do not block the cooling vents.
- * Please turn off the power before installation, electric installation may damage the device.
- * In the course of work, do not charge plug and connecting cables to avoid damage.
- * This product is clearly marked power on the parameter, in the use of our standard power supply please make sure that the power supply parameters, so as not to burn out the device.

2th product introduction

LM-EX100-4K2K is a high-performance HDMI Image transmission devices, its main feature is a network cable HDMI Images without compression, delay-free transmission 100 M distance, maximum support 4k*2k ultra high resolution transmission while supporting IR Bi-directional transmission of infrared remote control signals and RS-232 Serial bi-directional transmission of the signal.

HD signal extenders usually require compression of the signals at the extenderer can transmit signals through cable, HD video signal through the receiver decodes the signal into. As chip bandwidth issues that need larger image signal compression, which leads to sharp decline in the quality of the image as a whole and become very unclear. And preparation and decoding process takes a long time, it may lead to transfer to Terminal than the original screen image has a long delay.

By LM-EX100-4K2K Unique image processing technology for HD video transmission, to full HD video image without compression, transfer without delay to display terminals. LM-EX100-4K2K HD transmission advantage is not just the absence of compression, HD video signal extended without delay or extend the synchronization RS-232 serial port signals and IR infrared remote control signals, users can use a network cable conveniently packaged set of multiple signal transmission, Reduced to a large extent user projects needed to construct a variety of different cable problem, but also greatly reduce the costs associated with the user.

3th main functions

- 3.1, Supports full HD 1080p@60Hz,3D, 4K × 2K/30HZ HDMI Signal transmission;
- 3.2, 1080p Full HD signal through Cat6a Lines can be extended 100 M;
- 3.3, The use of HDBaset Technical support HDMI Image signal extended without compression and without delay;
- 3.4, Support bi-directional infrared signals back to the serial port RS-232 Two-way signal transmission;
- 3.5 , Support HDCP 、 CEC 、 24 -Bit color depth;
- 3.6 , Support uncompressed audio LPCM And compressed audio DTS-HD,Dolby True HD ;
- 3.7 , The use of POC Power supply, just as one end of the extenderer or the receiver for 12V Power supply;

4th Packing list

- HDMI to HDBaseT Sender TX x 1pcs
- HDBaseT to HDMI Receiver RX x 1pcs
- DC12V 3A Power supply x 1pcs
- IR blaster extension cable x 1pcs
- IR receiver extension cable x 1pcs
- User's manual book x 1pcs

5th Installation requirements

- 1、 HDMI source device:
HDMI output signal sources. such as DVD、 andPS3、 STB、 PC and so on.
- 2、 Display device:
HDMI input display devices, such as televisions, projectors.
- 3、 Cable:
UTP/STP cat5e/6/6a/7 cable, follow standard IEEE-568B

6th Interfaces



- ① RS232 extend interface
- ② IR signal input to connect with IR receiver extension cable
- ③ HDBaset signal output interface
- ④ RS232 extend interface
- ⑤ IR signal input to connect with IR receiver extension cable
- ⑥ HDBaset signal input interface



- ① HDMI signal output interface, connect HDMI display device
- ② IR signal output to connect with IR blaster extension cable
- ③ DC12V 3A power input interface (only for transmitter or receiver)
- ④ Power light (Green light when power supply)
- ⑤ HDMI signal input interface, connect HDMI signal source device
- ⑥ IR signal output to connect with IR blaster extension cable
- ⑦ DC12V 3A power input interface (only for transmitter or receiver)
- ⑧ Power light (Green light when power supply)

6.1 Indicator light operation

1. Power indicator light - power on constantly
2. The line connection is normal--RJ45 yellow light is always on, green light flashes
3. No HDMI signal source input or HDMI is not connected to the display terminal - RJ45 yellow light flashes, green light is not bright;
4. The network cable is not connected - the RJ45 light is not lit at all.

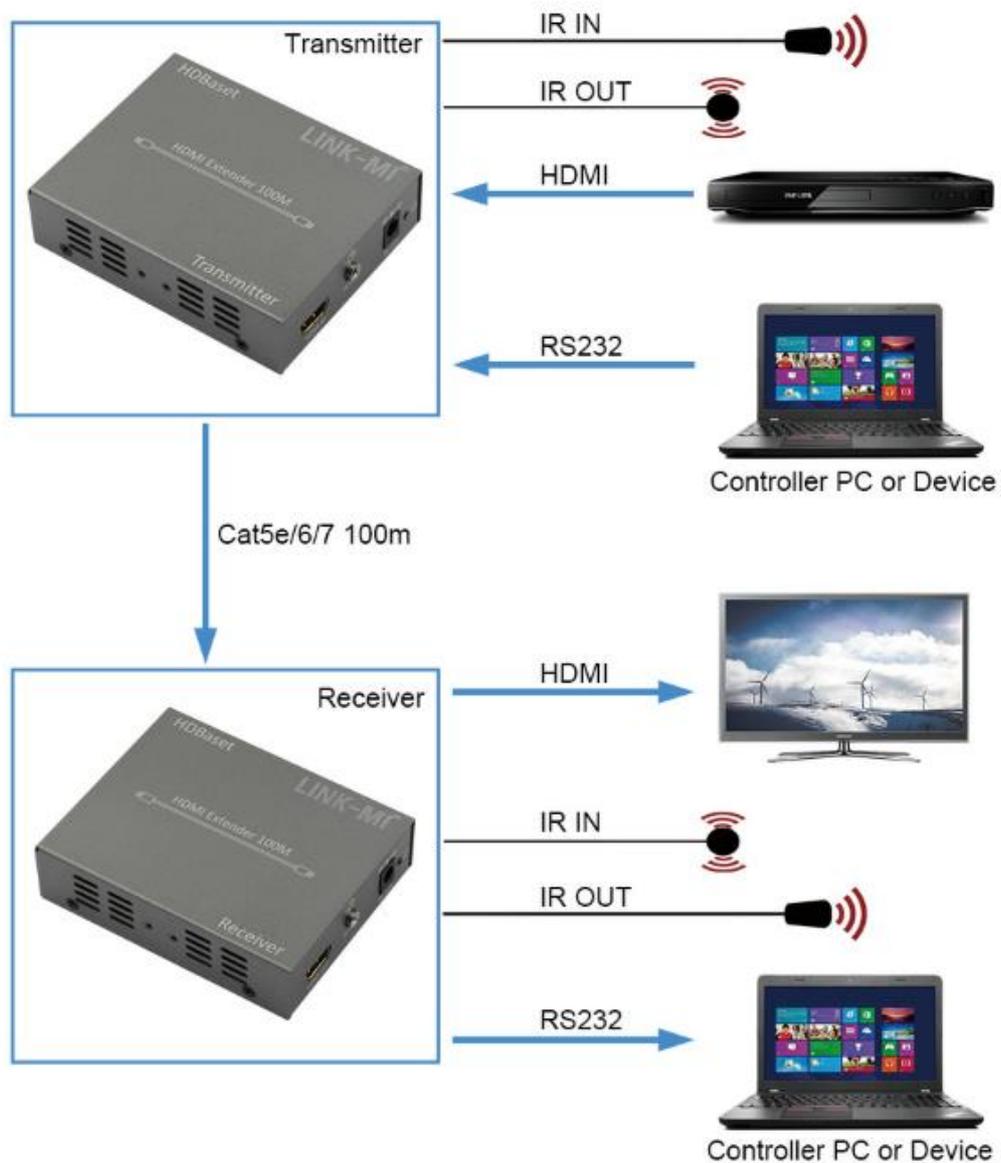
7th installation procedures

7.1 Making network cable

Follow the Standard of IEEE-568B linear order:

- | | |
|--------------------------|-----------|
| 1- the Orange and white, | 2- Orange |
| 3- green and white, | 4- blue |
| 5- Blue and white, | 6- green |
| 7- Brown and white, | 8- Brown |

7.2 System topology



7.3 IR introduce

1) TK-HB70 support IR infrared return, through the remote control DVD in TX, or Through remote control TV in RX.

2) If control in RX -side , put IR blaster extension cable connect TX's IR OUT interface, put IR receiver extension cable connect RX's IR IN interface. If control in TX side, put IR blaster extension cable connect RX's IR OUT interface, put IR receiver extension cable connect TX's IR IN interface.

7.4 RS-232 serial transmission

By RX, TX, GND, serial signal can be extended by network cable, can be defined at any side of the RS-232 signal transmitter or receiver.

8th RFQ

Q: No video output?

A: Check the power supply is connected, according to the led status check network cables and HDMI cable is ok.

Q: LED status ok, but HDMI display no video output?

A: Check HDMI display whether switcher to HDMI channel that HDMI input.

Q: Power light on, RJ45 yellow light flashing, green light is off, no video?

A: Check HDMI cable in transmitter and receiver

Q: Power light on, RJ45 lamps light off?

A: Please check whether the network cable is connected or replace a better quality network cable.

Q: Output vedio with flash or white noise?

A: Please replace the HDMI cable between the transmitter and the signal source, or test it with a short HDMI cable.

9th product parameters

Project	Parameter description		
HDMI signal	HDMI1.4, HDCP2.2, support for the CEC, 24-bit color depth, 4Kx2K		
Transfer Protocol	HDBaseT		
Supported resolution	480i/480P/576i/576P/720P/1080i/1080P/3D/4Kx2K		
Audio	LPCM,DTS-HD,Dolby True HD		
Network cable	CAT5E、CAT6、CAT6A、CAT7		
Transmission distance	CAT5e/CAT6	100m	Up to 1080P60Hz 36bpp
		70m	1080p@60Hz 48bpp,1080p60Hz 3D,4Kx2K 30Hz
	CAT6a/CAT7	110m	Up to 1080P60Hz 36bpp
		75m	1080p@60Hz48bpp,1080p@60Hz3D,4Kx2K 30Hz
Infrared return	Support 20-60kHz broadband infrared remote control, support bi-directional infrared transmission		
RS-232 Transmission	Supports serial RS-232 bi-directional transmission		
Power supply	DC12V/ 2 A * 1pcs		
Power consumption	No more than 8w		
Product size	101 (L)× 79 .5(W)×2 6 (H)mm *2pcs		
Body material	Metal		
Net weight	TX: 250 g RX: 250 g		
Color	Titanium Crystal grey		