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# HD15 HD extender

(HDBaset 150M)

## 1<sup>th</sup> Sketch

With the consumption and demand for high-quality HD content continues to grow, end users are also more interested in expanding the HD video experience to every corner. Users want to find a way to connect televisions and other display devices with entertainment devices such as Blu-ray DVD players to achieve the integrated distribution of high-definition multimedia content. Display devices such as LCDTVs, TV walls, LED screens in supermarkets, security, airports, public places and other areas. High-definition display devices in these places often require long cables and complex wiring. DVI and HDMI obviously cannot meet the length and cost. Demand, now commonly used analog video and audio transmission can no longer meet the requirements of high-definition video.

And some of the existing technologies in terms of bandwidth limitations, cannot support uncompressed video. HD multimedia content in all areas of audio and video communication market and the inadequacies of existing technologies to promote electronics limited development, production HD digital connection standard for TK-HD series extenders, which can extend the uncompressed HD multimedia content transmission distance increase their range, simplified installation, and reduce overall system cost.

## 2<sup>th</sup> product introduction

TK-HD15 is a high-performance HDMI image transmitter. Its main function is to transmit the HDMI image signal without compression and delay through a network cable at a distance of 150 meters. It can support a maximum transmission of 1920x1080 @ 60HZ resolution. Support two-way transmission of IR infrared remote control signals and RS-232 serial port signals.

Generally, a high-definition signal extender needs to compress and encode a signal at a transmitting end into a signal that can be transmitted through a network cable, and then decode the signal into a high-definition video signal at a receiving end. Due to the chip's bandwidth problem, the image signal needs to be compressed relatively. This leads to a significant decrease in the overall image quality and becomes unclear. In addition, it takes a long time in the process of encoding and decoding, so that the image transmitted to the terminal has a longer time delay than the original picture.

Through the unique image transmission processing technology of the TK-HD15 high-definition image transmitter, high-definition video images can be transmitted to the display terminal completely without compression and without delay. The advantages of

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TK-HD15 high-definition transmitter are not only transmission of high-definition video signals without compression and delay, but also synchronous extension of RS-232 serial signals and IR infrared remote control signals, etc. Users can easily package multiple The centralized transmission of signals greatly reduces the problems of laying out a variety of different cables in user projects, and greatly reduces the related costs of users.

### **3<sup>th</sup> main functions**

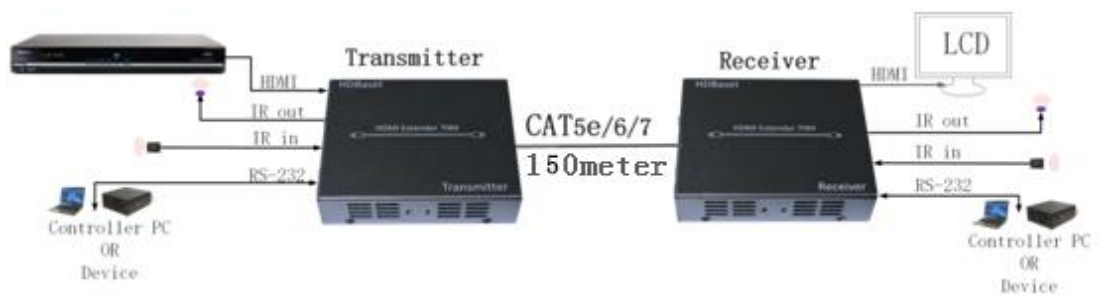
- 3.1, Supports full HD 1080p @ 60Hz HDMI signal transmission up to 150 meters;
- 3.2, Adopt HDBaset technology; support HDMI image signal transmission without compression and delay;
- 3.3, Support bi-directional infrared signals back to the serial port RS-232 Two-way signal transmission;
- 3.4 , Support HDCP 、 CEC 、 24 -Bit color depth;
- 3.5, Support uncompressed audio LPCM And compressed audio DTS-HD,Dolby True HD ;
- 3.6 , The use of POC Power supply, just as one end of the extenderer or the receiver for 12V Power supply;

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#### 4<sup>th</sup> product appears



#### 5<sup>th</sup> System topology



#### 6<sup>th</sup> product parameters

Project	Parameter description		
HDMI signal	HDMI1.3, support for the CEC, 24-bit color depth		
Transfer Protocol	HDBaseT		
Supported resolution	480i/480P/576i/576P/720P/1080i/1080P		
Audio	LPCM,DTS-HD,Dolby True HD		
Network cable	CAT5E、CAT6、CAT6A、CAT7		
Transmission distance	CAT5e/CAT6	150m	Up to 1080P60Hz 36bpp
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/ 3 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		