

# HSV561PoC 4K 60Hz KVM 网线延长器

## 使用手册



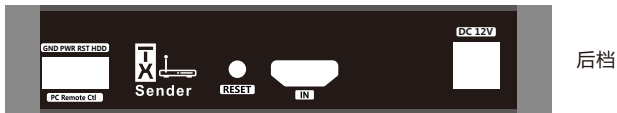
### 一. 产品简介

HSV561 HDMI点对点延长器通过网线, 将4K@60Hz 4:4:4 超高清HDMI信号零延时传输, 最大可支持60米延长。同时从接收端将鼠标键盘控制信号发送到发射端, 实现USB 2.0 延长功能。产品特点在于支持 4K@60Hz 4:4:4格式或以下的分辨率, 无损零延时传输; 是业界领先的解决方案。此外, 本产品还可以支持主机远端开关机、复位、硬盘运行指示灯回显; EDID透传。任意一边12V电源供电, 两边工作, 从而满足客户各种组合功能的需求。

### 二. 主要特性

- ▶ 分辨率支持4K@60Hz 4:4:4, 超高清无损视频无延时
- ▶ 兼容HDMI规范2.0; HDMI规范1.4
- ▶ 支持主机远端开关机、复位、硬盘运行指示灯回显
- ▶ 采用EDID透传技术
- ▶ 任意一边12V电源供电, 两边工作

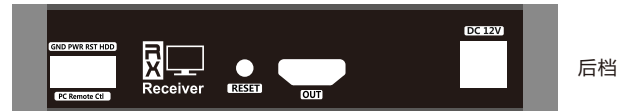
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后档

标识	类型	说明
PC Remote Ctrl	GND	数字地 (主机)
	PWR	开关机控制
	RST	复位控制
	HDD	硬盘状态指示灯 输入
RESET	按键	短按复位
IN	输入接口	HDMI输入
DC 12V	输入接口	12V 2A 电源输入(单边供电)

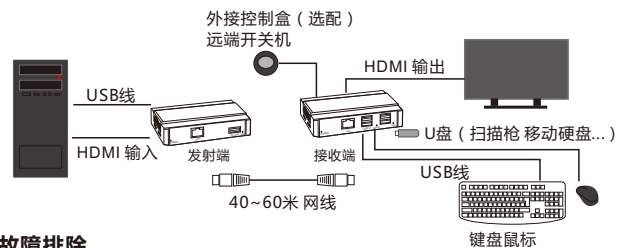
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后档

标识	类型	说明
PC Remote Ctrl	GND	数字地 (开关盒子)
	PWR	开关机控制
	RST	复位控制
	HDD	硬盘状态指示灯 输出
RESET	按键	短按复位
OUT	输出接口	HDMI输出
DC 12V	输入接口	12V 2A 电源输入(单边供电)

### 五. 点对点延长连接示意图



### 六 故障排除

**TX端:** DATA灯正常工作与RX端DATA灯状态同步快闪或常亮;  
(不接入主机信源时为慢闪, 呼吸状态)

**RX端:** DATA灯正常工作与TX端DATA灯状态同步快闪或常亮;  
(TX端未接入主机信源时为慢闪, 呼吸状态)

LED灯设备接入指示灯, 有外部设备接入任一个USB口时常亮;

**绿灯状态:** 音视频工作延长正常为常亮;  
(TX端绿灯能亮起, 排查RX端接口插接是否良好, 或显示设备休眠)

**橙灯状态:** 信号连通正常为常亮;  
闪烁一次: NO Link; (排查TX端与RX端之间的网线连接情况)

闪烁两次: Reserved; (预留)

闪烁三次: 正向视频正常, 反向数据异常;  
(排查网线接线方式及RX端与显示设备之间HDMI线连接的情况)

闪烁四次: 正向视频异常, 反向数据正常;  
(排查网线长度、接线方式及TX端与信源设备之间以及RX端与显示设备之间的HDMI线连接的良好情况, 确认信源及显示设备正常开机)

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### 接收端



前档

标识	类型	说明
UTP	输入输出接口	连接网线, 传输信号
Power	电源指示灯	上电常亮
USB 2.0	USB 2.0 接口	全速USB 接口 支持U盘、硬盘、摄像头、声卡、麦克风、USB触控屏等各种USB设备

与TX端配套使用时, RX端4个USB 2.0接口接入情况:  
接入3个U盘+1个移动硬盘可延长40米(UTP带屏蔽CAT5E /CAT6网线),  
接入2套键鼠带音视频延长时最远可延长致60米 (UTP CAT 6网线),  
以上USB延长距离均与音视频延长输出同时进行的有效传距。  
仅接入键鼠鼠标60--80米; (有音视频延长输出时60米, 无音视频延长时80米)  
CAT6网线.40米 衰减不大于-16dB; 60米 衰减不大于-25dB; 80米 衰减不大于-30dB;

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### 三. 技术参数

参数	说明		
电源	DC 12V2A(单边供电 只需一个12V2A电源)		
单边供电最大功耗	MAX 15W (1对延长器的总功耗)		
HDMI信号	HDMI2.0		
HDMI接口	HDMI A type 母头	网线接口	Rj45
网线类型	CAT 6 ;CAT 5E(线损衰减 < -25dB )	最大延长距离	60米
支持分辨率 (EDID 透传)	4Kx2K, 4096x2160@60Hz RGB、YCbCr444/422/420 ; 4Kx2K, 3840x2160@60Hz RGB、YCbCr444/422/420 (常用分辨率) 4Kx2K, 3840x2160@50Hz RGB、YCbCr444/422/420 ; 4Kx2K, 3840x2160@30Hz RGB、YCbCr444/422 及向下 1920*1080 @ 60Hz; 1920*1080@24Hz ; 720p@60Hz / 720p@50Hz ;480P 720x480; 支持 P 帧和 I 帧, EDID采用透传技术.		
工作模式	点对点延长	产品尺寸	125mm * 84mm * 25mm
工作温度	-5°C - +75°C		
工作湿度	5% ~ 90% RH(非凝固)		

### 四. 接口说明

#### 发射端



前档

标识	类型	说明
UTP	输入输出接口	连接网线, 传输信号
Power	电源指示灯	上电常亮
PC-USB	USB 接口	电脑主机USB 接口 以及 连接指示灯

# HSV561PoC 4K 60Hz KVM Extender

## Manual



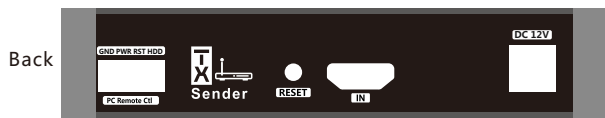
### 1. Brief Introduction

HSV561 HDMI point-to-point extender transmits 4K @ 60Hz 4: 4: 4 ultra high-definition HDMI signals with zero delay through a network cable, and can support up to 60 meters. At the same time, the mouse and keyboard control signals are sent from the receiving end to the transmitting end to realize the USB 2.0 extension function. The product is characterized by supporting 4K @ 60Hz 4: 4: 4 format or lower resolution, lossless zero-latency transmission; it is the industry's leading solution. In addition, this product can also support remote host power on / off, reset, hard disk operation instructions Echo display; EDID transparent transmission. 12V power supply on either side, working on both sides, so as to meet the needs of customers with various combined functions.hh

### 2. Features

- ▶ Resolution up to 4K@60Hz 4:4:4 , zero latency
- ▶ Compatible with HDMI 2.0; HDMI 1.4
- ▶ Support host remote power on / off, reset, hard disk running indicator echo
- ▶ Support EDID P
- ▶ PoC: 1PCS of 12V DC adapter supply 2 devices

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ID	Type	Description
PC Remote Ctrl	GND	DATA (HOST)
	PWR	ON/Off Control
	RST	Reset Control
	HDD	Hard disk LED Input
RESET	Button	Press to reset device
IN	Input	HDMI input
DC 12V	Power Input	Power supply 12V 2A DC (PoC)

### Receiver:



ID	Type	Description
UTP	Input/Output	connect to UTP cable
Power	LED	Light on when device power on
USB 2.0	USB 2.0 Interface	Full-speed USB interface supports U disk, Hard disk, camera, sound card, microphone, USB touch screen and other USB devices

When used with the TX side, the access of the four USB 2.0 interfaces on the RX side: Access to 3 U disks + 1 mobile hard disk can extend 40 meters (UTP with shielded CAT5E / CAT6 network cable).  
When connecting two sets of keyboard and mouse with audio and video extension, it can be extended up to 60 meters (UTP CAT 6 network cable).  
The above USB extension distances are all effective transmission distances simultaneously with the audio and video extension output.  
Only connect keyboard and mouse 60-80 meters; (60 meters with audio and video extension output, 80 meters without audio and video extension)  
CAT6 network cable: 40 meters attenuation is not greater than -16dB; 60 meters attenuation is not greater than -25dB; 80 meters attenuation is not greater than -30dB;

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### 3 Specification

Item	Description		
Power	DC 12V2A(PoC)		
Consumption	MAX 15W ( TX AND RX )		
HDMI Sing	HDMI2.0		
HDMI format	HDMI 2.0	UTP Interface	Rj45
UTP	CAT 6 ;CAT 5E(attenuation < -25dB)	Transmission distance	60 meter
Resolution (EDID pass-through)	4Kx2K , 4096x2160@60Hz RGB, YCbCr444/422/420 ; 4Kx2K , 3840x2160@60Hz RGB, YCbCr444/422/420 ( Common ) 4Kx2K , 3840x2160@50Hz RGB, YCbCr444/422/420 ; 4Kx2K , 3840x2160@30Hz RGB, YCbCr444/422/420 1920*1080 @ 60Hz ; 1920*1080@24HZ ; 720p@60Hz / 720p@50Hz ;480P 720x480; Support P frame and I frame, EDID Pass-through		
Working Mode	Point to Point	Size	125mm * 84mm * 25mm
Working Temperature	-5°C - +75°C		
Working Humidity	5% ~ 90% RH(Non-condensing)		

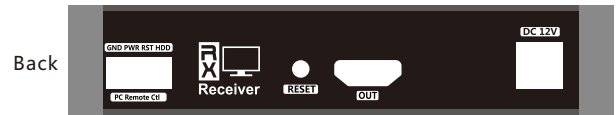
### 4 Hardware Description

#### Trasmitter:



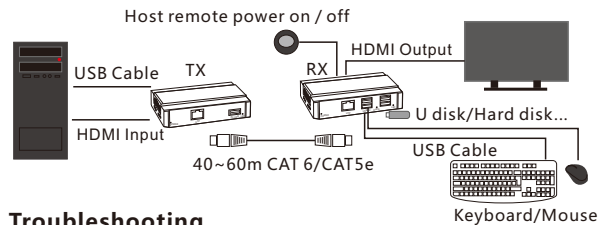
ID	Type	Description
UTP	Input/Output	Connect to UTP cable
Power	LED	Light On when device power on
PC-USB	USB Interface	Computer host USB interface and connection indicator

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ID	Type	Description
PC Remote Ctrl	GND	Digital ground (ON/off box)
	PWR	On/Off control
	RST	Reset control
	HDD	Hard disk status indicator output
RESET	Button	Press to reset device
OUT	Output	HDMI Output
DC 12V	Power Input	Power supply 12V 2A DC (PoC)

### 5. Point to point KVM Extension



### 6. Troubleshooting

**TX end:** The DATA light works normally and flashes or stays on in sync with the state of the RX light on the DATA light.  
(Slow flash when not connected to host source, breathing status)

**RX side:** The DATA light works normally and flashes or stays on in sync with the state of the DATA light on the TX side. (When the TX end is not connected to the host source, it blinks slowly, breathing status) LED light device access indicator, always on when any external device is connected to any USB port;

**Green Light status:** The audio and video work is extended normally and is always on; (The green light on the TX end can light up, check whether the RX end interface is connected well, or display the device to sleep)

**Orange light status:** The signal connection is normally on;  
**Blinking once:** NO Link; (check the network cable connection between TX and RX)  
**Flashes twice:** Reserved; (Reserved)

**Flashes three times:** The forward video is normal and the reverse data is abnormal; (Check the network cable connection method and the condition of the HDMI cable connection between the RX end and the display device)

**Four flashes:** The forward video is abnormal and the reverse data is normal; (Check the length of the network cable, the connection method, and the good condition of the HDMI cable connection between the TX end and the source device, and the RX end and the display device, and confirm that the source and display device are turned on normally)

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