

# KVM CAT5e Extender

## VKM04 VGA & USB with Stereo Audio, RS232 CAT5e Extender with Loop Out



VKM04 can extend signals of VGA, USB, Stereo Audio, RS232, and IR all over one cost-effective CAT5e cable which makes installation easily and neatly.

It provides superior video quality up to 1920 x 1200 resolutions and VGA Loop Out for local display

The maximum transmission distance is up to 140M over CAT6 cable.

It is perfect for interactive digital signage, home network integration, industrial control, hospital, class room, security application.

### Features:

- Extends VGA, stereo audio, RS232, IR and USB signals over one CAT5e/CAT6 cable.
- Supports up to 1920 x 1200@60Hz.
- Transmission distance up to 120M over CAT5e, 140M over CAT6.
- Transmitter unit has built-in VGA Loop Out.
- Support stereo audio extension for stereo speakers and microphone...etc.
- Support USB 2.0, USB 1.0 & USB 1.1 extension. Ex. Flash/Hard disk, keyboard, mouse...etc.
- Support Full Duplex RS232 data communication.
- Support IR one direction extension, IR carrier frequency: 20-60K Hz.
- Plug and play for easy operation.
- Optional model: SR01 signal repeater for longer distance application.
- Optional model: IR-CR01 IR receiver cable for extending distance of IR reception.

### Installation:

(1) Connects VKM04T and VKM04R directly.



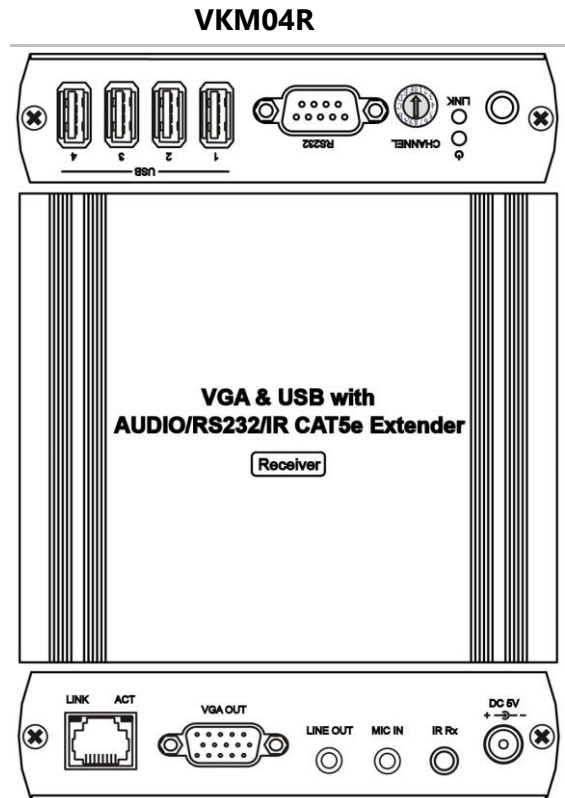
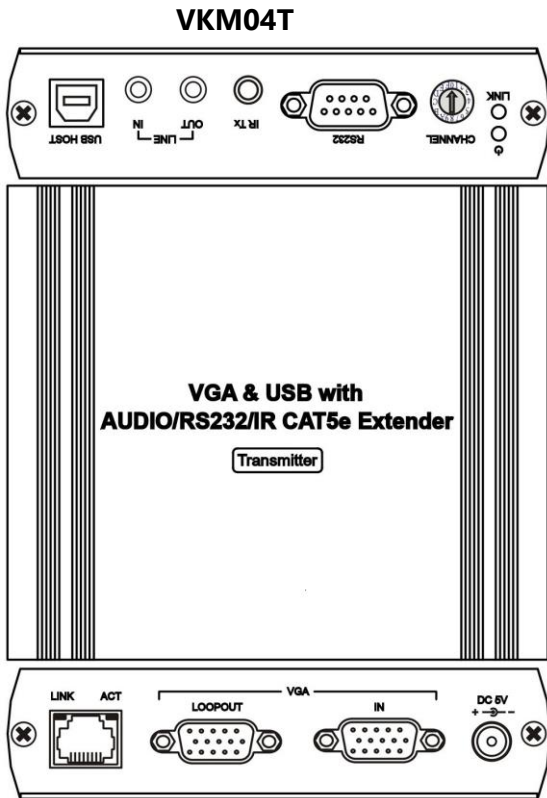
(2) Works with optional model SR01 for extra 140M over CAT6 cable, 120M over CAT5e cable.



**Note:**

1. It is recommended to use high quality Cat.5e, Cat.6 UTP/STP/FTP cable.
2. The transmission distance may be decreased by the performance of input/output devices and installing environment.

**Panel Review:**



**LED Indication Status:**

LED	LED color	LED status	Description
On	Green	Light	Power on
Link	Blue	Light	Linked
RJ45	Green	Flash	Data Transmitting
RJ45	Orange	Light	Connection Activity

**RJ45 Pin Define:**

**Link Cable (TIA/EIA-568-B)**

- |                 |          |
|-----------------|----------|
| 1. Orange-white | Data 1 + |
| 2. Orange       | Data 1 - |
| 3. Green-white  | Data 2 + |
| 4. Blue         | Data 3 + |
| 5. Blue-white   | Data 3 - |
| 6. Green        | Data 2 - |
| 7. Brown-white  | Data 4 + |
| 8. Brown        | Data 4 - |

## Dip Switch & Button at the bottom:

### VKM04T-4K

Switch /Button	Function	↓	↑
1	Group	0	1
2	RS232	Normal	Reserved

### VKM04R-4K

Switch /Button	Function	↓	↑
1	Group	0	1
2	RS232	Normal	Reserve
<b>Button 1</b>	Function Switch	MAC, IP, Baud rate, Updated EDID(Reserve)	
<b>Button 2</b>	Baud rate setting	115200, 57600, 38400, 19200, 14400, 9600, 4800, 2400, 1200	

## Rotary Switch:



VKM04 has built in rotary switch for pairing devices and the rotary switch can be used to switch 0-F channel pairing with group setting of switch

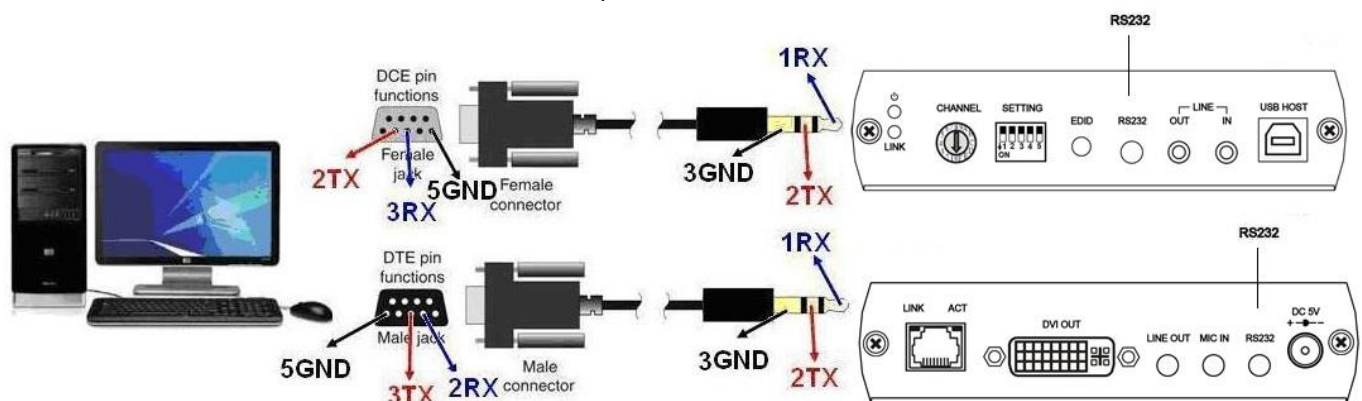
1. The channel number and group setting of the transmitter and receiver must be same to be connected each other, total up to 32 (16 for each group) pairs could be setup at one switch.
2. After setting the pairing and group, it must reset the power to make it work.

## RS232 Baud Rate Setting:

RS232 Default Baud rate is 115200bps. If need to change data rate, press menu button at the receiver unit to select Baud rate menu, then press select button to select the data rate and press menu button again to confirm and completed the Baud rate setting.

## RS232 Define:

DB9 (M)/3.5mm STEREO PHONE JACK Cable (Optional Order)



### DB9 F/3.5mm STEREO PHONE JACK

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	TX	Pin 1	RX
Pin 3	RX	Pin 2	TX
Pin 5	GND	Pin 3	GND

### DB9 (M)/3.5mm STEREO PHONE JACK

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	RX	Pin 1	RX
Pin 3	TX	Pin 2	TX
Pin 5	GND	Pin 3	GND

## Trouble Shooting:

1. Max. transmission data rate of VKM04 is up to 850Mbps.
2. It is not recommend connecting VKM04 to existing LAN structure as the large video data transmission might paralyze existing LAN structure. °
3. Default transmitter EDID is 1080p, you could copy remote/loop out monitor EDID from TX.
4. VKM04R analog audio input (MIC IN) is mono for microphone use only, not stereo audio (Line in)
5. USB port each max power output is 500mA, 4 port USB total output up to 1500mA.

## Package Include:

- VKM04T Transmitter x 1
- VKM04R Receiver x 1
- IR emitter cable x 1
- Audio cable (3.5mm) 80cm x 1
- VGA cable 90 cm x 1
- DC 5V 2Amp power adapter x 2
- USB type B to type A cable (150cm)

## Specification:

ITEM NO.	VKM04T	VKM04R
Support Resolution	Up to 1920 x 1080 @ 60 Hz	
Transmission Distance	CAT5e: 120M, CAT6: 140M (Max)	
VGA Input	D-Sub 15 Pin Female	D-Sub 15 Pin Female x 1
VGA Loop Out port	D-Sub 15 Pin Female	N/A
USB Connector	USB 2.0 Type B x 1	USB 2.0 Type A x 4
RS232 Connector	DB9(Female) x 1	DB9(Male) x 1
Analog Audio Input	Line In, 3.5 mm Stereo Phone Jack	Mic In, 3.5mm Mono Phone Jack
Analog Audio Output	Line Out, 3.5mm Stereo Phone Jack	
Ethernet	RJ45	
Power Supply	DC 5V 2 Amp	
Power Consumption	1000mA (Max)	400mA (Max, No USB Device)
Temperature	Operation: 0 to 55°C, Storage: -20 to 85°C, Humidity: up to 95%	
Dimensions mm	125 x 140 x30 (W x D x H)	
Weight g	390	385

RoHS   

Rev. A