

# VGA Keyboard Mouse CAT5 Extender

ITEM NO.: VKM01

The VGA, Keyboard Mouse CAT5 Extender allows VGA video signals and keyboard mouse to be transmitted up to 100 meters via 2 x CAT5 STP or UTP cable. Used in pairs, the Extender is used in home or commercial applications as a smart, fast and cost-effective, eliminates costly and bulky VGA, keyboard mouse cable. Applications for classroom projector systems, boardroom systems, collaborative PC systems C-training systems, and tradeshow PC demo systems and medical information systems.

## Features:

### VKM01 Keyboard Mouse CAT5 Extender – PS/2 Interface

- Extend VGA and Keyboard mouse over 2 CAT5 UTP cable to instead of VGA cable and keyboard mouse cable.
- Including local and remote units.
- Up to 100 meters via standard 4 pairs CAT5 STP or UTP cable instead of VGA cable.
- **Transmitter built in virtual DDC to avoid improperly setting at resolution and frequency.**
- **Transmitter built in sync mode selection for signal stability.**
- **Receiver built in sync filter level adjustment for signal stability.**
- Supports up to 1280x1024 pixels.
- Passive device, not support VGA DDC protocol.
- Perfect for classrooms, lecture halls, tradeshow, video information displays...etc.

## Recommend Cable:

1. CAT5e UTP/STP or Cat6 UTP cable.
2. There are some certain models or brands of monitors with very high demand at sync-sensitive, recommend use STP (shielding twisted pair) cable to instead of UTP (unshielded twisted pair) cable.

## RJ45 Pin Configuration: TIA/EIA 568B Wiring standard

### Video Link Cable

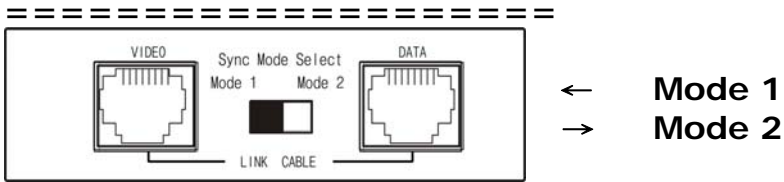
- |                 |               |
|-----------------|---------------|
| 1. Orange-white | Video Red +   |
| 2. Orange       | Video Red -   |
| 3. Green-white  | H-Sync        |
| 4. Blue         | Video Green + |
| 5. Blue-white   | Video Green - |
| 6. Green        | V-Sync        |
| 7. Brown-white  | Video Blue +  |
| 8. Brown        | Video Blue -  |

### Data Link Cable

- |                 |                |
|-----------------|----------------|
| 1. Orange-white | Keyboard Clock |
| 2. Orange       | Keyboard Data  |
| 3. Green-white  | Power 1        |
| 4. Blue         | Ground 1       |
| 5. Blue-white   | Power 2        |
| 6. Green        | Ground 2       |
| 7. Brown-white  | Mouse Clock    |
| 8. Brown        | Mouse Data     |

## Switch Setting:

### VKM01-T Sync Mode Select



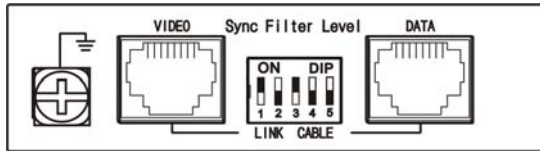
1. For new type monitors, such like over 17" LCD Monitor, recommends setting at mode 1 for the best stability. If the picture not normal, then switch to Mode 2.
2. For old type monitors, such like CRT or under 17" LCD Monitor, recommend setting at mode 2. If the picture still not normal after adjust the dip switch of VKM01-R. Then please use STP (shielding twisted pair) cable.

## DIP Switch Setting:

### VKM01-R Sync Filter Level

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ON



Sync Filter is designed for using UTP CAT5 cabling.

Sync Filter level adjustment is to add the sync stability, but not adjust picture quality or eliminate skew.

Since different brand monitor have different setting, so there is no recommended setting. Please adjust the level based on picture stability. If no picture display or picture not stable, then please use STP cable.

## Caution:

1. The wiring must be away from electro magnetic equipment, i.e. microwave, wireless, hi voltage cable...etc.
2. The maximum distances supported by the VGA Extender are dependent on the type of twisted pair cable and image resolution of the PC's VGA interface. Make sure that the maximum recommended operational distances have not been exceeded.
3. All wiring is "straight-through" twisted pair cable, not being used for other LAN or telephone equipment.
4. Do not connect the VGA Extender to a telecommunication outlet wired to unrelated equipment.
5. If the keyboard mouse work abnormal, please reverse the cable of keyboard mouse.

## Troubleshooting at picture problem:

### 1. No picture display:

- Check Link cable.
- Check DIP switch setting.
- Check VGA cable connect.
- Change the resolution or frequency.
- Change Link cable for STP cable.

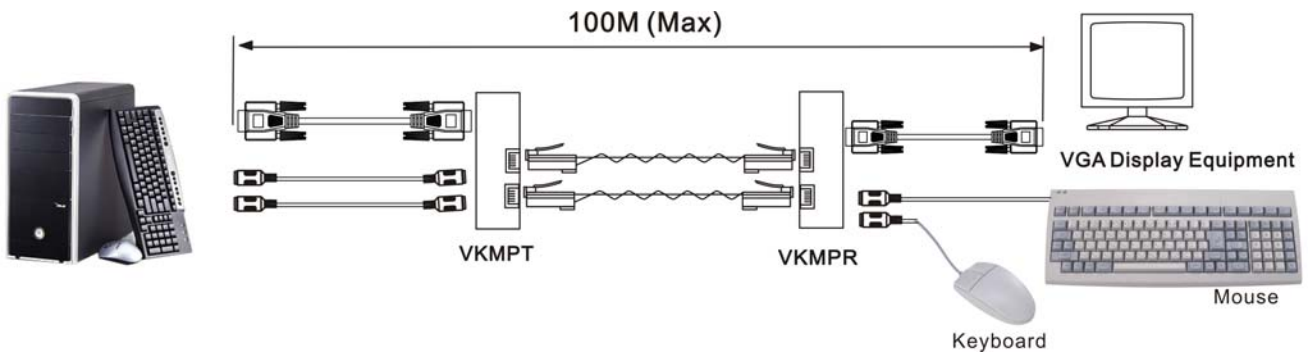
### 2. Picture not stable or disappear intermittence or no picture display:

- Check DIP switch setting.
- Change the resolution or frequency.
- Wiring away from electro magnetic equipments.
- Change Link cable for STP cable.

### 3. Picture tilt:

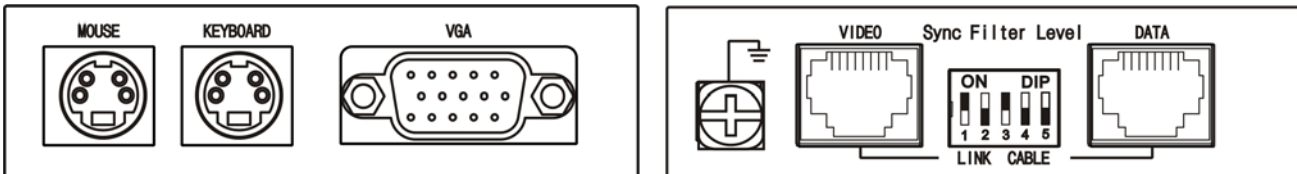
- Check DIP switch setting.
- Change the resolution or frequency.
- Change Link cable for STP cable.

## Installation View:

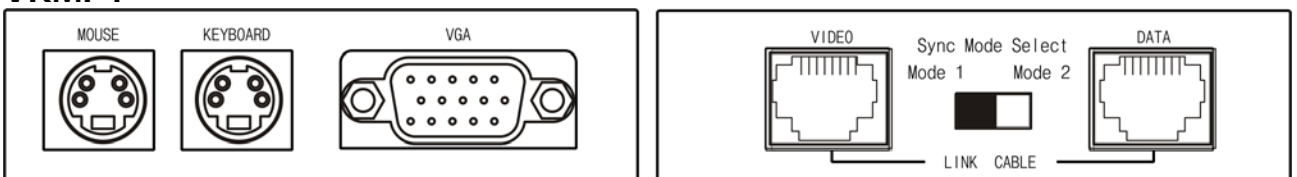


## Panel View:

### VKMPR



### VKMPT



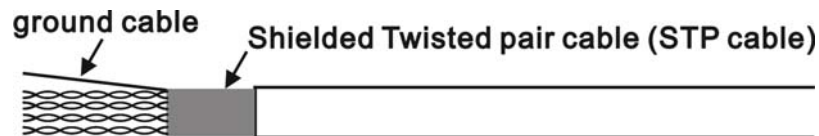
## Specification:

ITEM NO.	VKM01
Environment	VGA. VESA VP&D 1.0, VIP ver 2.0
Devices	VGA monitors, LCD projection screen, Laptops, PCs.
Input Signals	Video : 1.1V P-P
	Horiz & Vert Sync: TTL standard. 300kHz max. bandwidth
Insertion Loss	Less than 3dB per pair over the frequency range
Video Signal Return Loss	-15dB max from DC to 60Mhz
RJ45 Pin Configuration	R video (Red): Pin 1 (+), Pin 2 (-) Balanced Gvideo (Green): Pin 4 (+), Pin 5 (-) Balanced B video (Blue): Pin 7 (+), Pin 8 (-) Balanced Horizontal Sync: Pin 3, Vertical Sync: Pin 6
Impedance	Input : RGB 75 ohms (DB15 HD) Unbalanced
	Output : RGB 100 ohms (RJ45 shielded) Balanced
	Horizontal and vertical sync : TTL standard
Setting Switch	2 Stage Slide Switch- VKMPT   5 Stage Dip Switch -VKMPR
Transmission Distance	Up to 100 meters depend on image resolution
CABLE FOR RJ-45	CAT5 UTP or STP Cable
Temperature	Operation: 0 to 55 C, Storage: -20 TO 85 c, Humidity: up to 95%
DIMENSIONS W x H x D mm	108x74x27

## Application Tips to use CAT5 STP cable:

Following is the correct cable connection when use STP cable:

1. STP (shielding twisted pair) Cable.



2. STP (shielding) RJ45 connector with STP cable connection.

