



VGA/ KVM Extender

User Manual

Model : VKM02

Passive VGA Keyboard Mouse CAT5e Extender – USB Interface



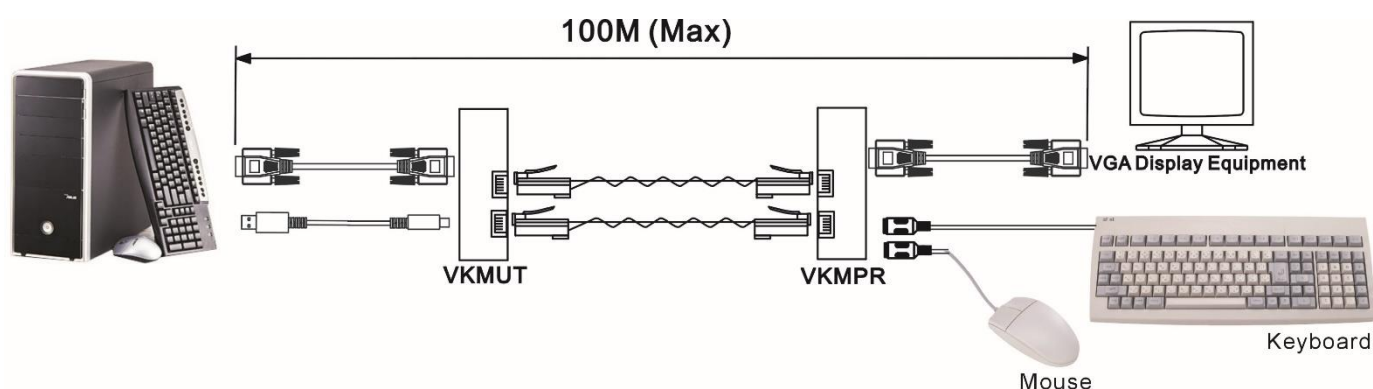
Introduction

VKM02 is a VGA extender that use 2 CAT5 STP or UTP cable to not only carry VGA signal but also USB one, with transmission distance up to 100M. it's a perfect solution used in home, shopping malls, classrooms, and boardrooms... etc.

Features

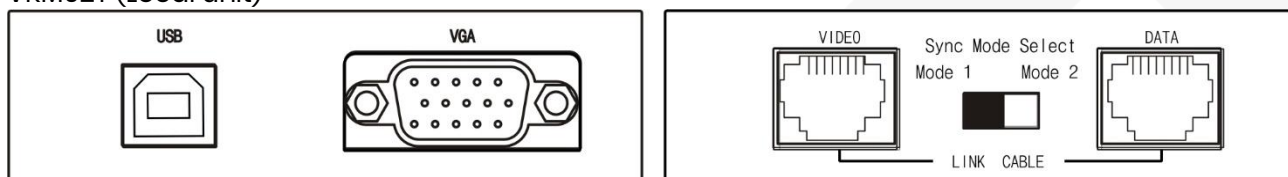
- Resolution up to 1280 x 1024 pixels.
- Signal extension up to 100M over a 4 pairs CAT5e STP or UTP cable.
- Built-in virtual DDC at TX unit to avoid improper setting for resolution and frequency.
- Built-in sync mode selection at TX unit for signal stability.
- Built-in sync filter level adjustment at RX unit for signal stability.

Installation View

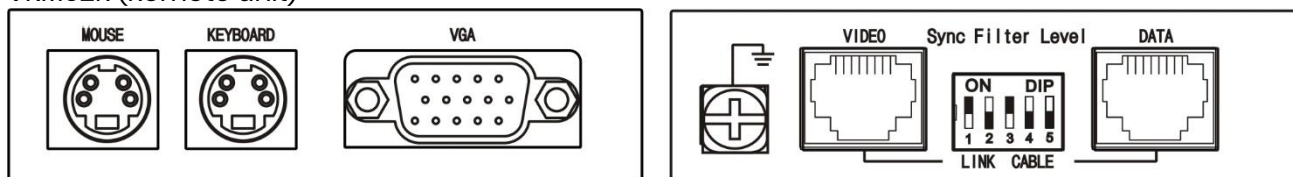


Panel View

VKM02T (Local unit)



VKM02R (Remote unit)



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.

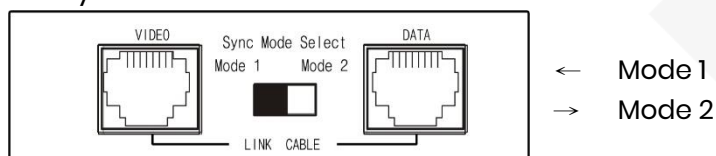
RJ45 Pin Configuration

TIA/EIA 568B Wiring standard

Video Link Cable		Data Link Cable	
1. Orange-white	Video Red +	1. Orange-white	Keyboard Clock
2. Orange	Video Red -	2. Orange	Keyboard Data
3. Green-white	H-Sync	3. Green-white	Power 1
4. Blue	Video Green +	4. Blue	Ground 1
5. Blue-white	Video Green -	5. Blue-white	Power 2
6. Green	V-Sync	6. Green	Ground 2
7. Brown-white	Video Blue +	7. Brown-white	Mouse Clock
8. Brown	Video Blue -	8. Brown	Mouse Data

Switch Setting

VKM02T Sync Mode Select

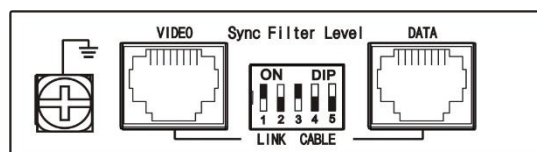


1. For new type monitors, such like over 17" LCD Monitor, recommends setting at mode 1 for the best stability. If the picture not normal, then switch to Mode 2.
2. For old type monitors, such like CRT or under 17" LCD Monitor, recommend setting at mode 2. If the picture still not normal after adjust the dip switch of VKM02R. Then please use STP (shielding twisted pair) cable.

DIP Switch Setting

VKM02R Sync Filter Level

ON					
↓	↓	↓	↓	↓	Level 0 (Min)
↑	↓	↓	↓	↓	Level 1
↓	↑	↓	↓	↓	Level 2
↓	↓	↑	↓	↓	Level 3
↓	↓	↓	↑	↓	Level 4
↓	↓	↓	↓	↑	Level 5
1	2	3	4	5	



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 electromagnetic equipment, i.e., microwave, wireless, high 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

No picture displays

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

Picture not stable or disappear intermittence or no picture display:

Check DIP switch setting.
Change the resolution or frequency.
Wiring away from electromagnetic equipment.
Change Link cable for STP cable.

Picture tilt

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

Specification

ITEM NO.	VKM02T	VKM02R
Support		
Compliance	TTL	
Max. Video Resolution	1280x1024px	
Max. Transmission Distance	100M over CAT5/ CAT5e/ CAT6 /STP or UTP Cable	
Video Bandwidth	300kHz	
Video Insertion Loss	Less than 3dB	
Video Return Loss	-15dB	
Ports & Interfaces		
Video Input	1 x DB15 (75 ohms, 1.1V p-p)	1 x RJ45 (100 ohms)
Video Output	1 x RJ45 (100 ohms)	1 x DB15 (75 ohms, 1.1V p-p)
Data Input	1 x USB Type B	1 x RJ45 (100 ohms)
Data Output	1 x x RJ45 (100 ohms)	2 x PS/2
Setting Switch	1 x 2-position Slide Switch	1 x 5-position DIP Switch
Ambient Temperature		
Operation	0 to 55°C	
Storage	-20 to 85°C	
Humidity	up to 95%	
Physical Characteristics		
Dimensions	108 x 72.2 x 27mm	108 x 72.2 x 27mm
Weight	105g	115g