KVM Extender

KVME-300

Transmitter :
KVME-300T

Receiver :
KVME-300R

User Manual

DataBay

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◉ Introduction

The Smart KVM Extender can extend the KVM control (Keyboard / Video / Mouse) up to 300 meters away over a single Cat5e cable. Build in matured KVM technology and video signal processing, it can extend KVM signal correctly and provide a premium video resolution up to 2048x1536@300m.

KVME-300 is perfect for centralized computer management. By adapting KVM switch or KVM Drawer, you can control multiple computers on a rack locally or in a remote location. This unit is also suitable for office or internet coffee store to secure all PCs in a computer room and extend KVM console to every desktop to ease the maintenance, save desktop space and prevent PC to be accessed through USB or other network.
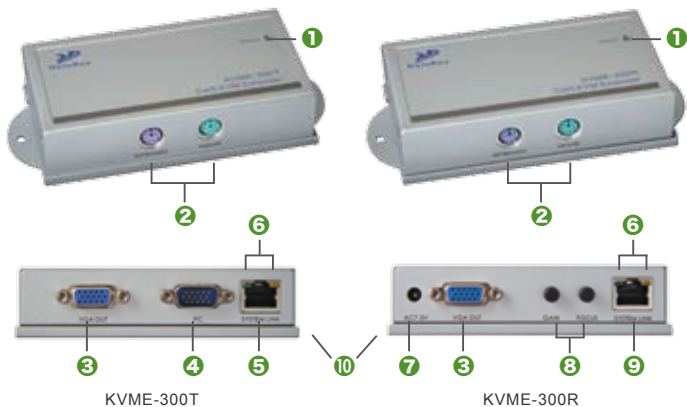
Build in smart keyboard and mouse simulation, it can support advanced function of Logitech or Microsoft mouse and work on any PS/2 PC or by using a USB to PS/2 converter to extend a USB interface computer (Ex: SUN / Mac).

The KVM Extender is designed not only to provide accurate KVM signal, but also easy to install. It provides a magnetic pad and a attachable metal plate, so you can place the KVM Extender very easily on the surface of PC or any preferred place like wood or concrete.

◑ Key Features

1. Extend the Keyboard / Video Monitor / Mouse of PC or KVM Switch by Cat5/5e/6 cable
2. Support VGA resolution and distance up to 2048x1536@300m
3. Use Cat5 Enhanced UTP cable (350MHz bandwidth) for best quality
4. Support PS/2 type PC or KVM Switch application
5. Software free, pure hardware design, support Plug & Play
6. Support VGA, SVGA, XGA, TFT-LCD with DDC2B function
7. Support MS-DOS, Windows, FreeBSD, Linux, Unix, Novell
8. Auto KVM (Keyboard/Video Monitor/Mouse) model detection for optimum setup, support the advanced function of Logitech and Microsoft mice
9. Provide manual signal compensation (Gain and Focus control) for different extended distance and achieving the best quality
10. Use integrated 3-in-1 KVM cable for PC or KVM Switch connection
11. Provides a magnetic pad and attachable metal plate for ease of installation

⚙ Panel Description

KVME-300T   KVME-300R

① Status
② Keyboard & Mouse
③ To Monitor
④ To PC
⑤ RJ-45 System Link
⑥ H & V. Sync Activity
⑦ Power Jack
⑧ Video Control
⑨ RJ-45 System Link
⑩ Magnetic Pad

CBK1512T 3in1 KVM Cable

○ Installation and Operation

1. Transmitter Installation

   (1)(1) Site Selection: In your first time installation, place Transmitter near the PC or KVM Switch console you want to extend; you can use magnetic pad to attach the unit on a metal plane (Ex PC / Server enclosure) or use attachable rack mounting kit to fix the unit on selected area by screw or nail.

Unit attached with Rack Mounting Kit and the Rack Mounting Kit

   (2) Connect KVM Console: Connect keyboard / video monitor / mouse to Transmitter. Unwrap a 15Pin integrated 3-in-1 KVM cable – CBK1512T, and connect the 15Pin end to the Transmitter and the other end of cable to the corresponding keyboard / video / mouse port of PC or KVM Switch.

PC or KVM Switch

CBK1512T

Connection of Transmitter

(3) Function Test: Power on your PC, the Transmitter will take the power from the PC's PS/2 connection; the front PC ON LED of Transmitter will keep blinking on green to indicate the unconnected status of System Link and the LEDs above RJ-45 will turn on to indicate the activation of video signal. Please test the function of monitor display, and make sure the keyboard and mouse are working properly to finish the installation of Transmitter unit.

2. Receiver Installation and UTP Connection:

   (1) Site Selection: Please place Receiver in an appropriate place and have the UTP cable settled for later connection. You can use magnetic pad to attach the unit on a metal plane or use attachable rack mounting kit to fix the unit on selected area by screw or nail.

   (2) UTP Cable Selection: For best VGA performance, you can refer to following type of UTP Cat5 cable - Belden DataTwist 350 UTP - #1700A – Solid, Belden DataTwist 350 patch - #1752A – Stranded, or Belden DataTwist Category 5e – 1583A – Paired cable
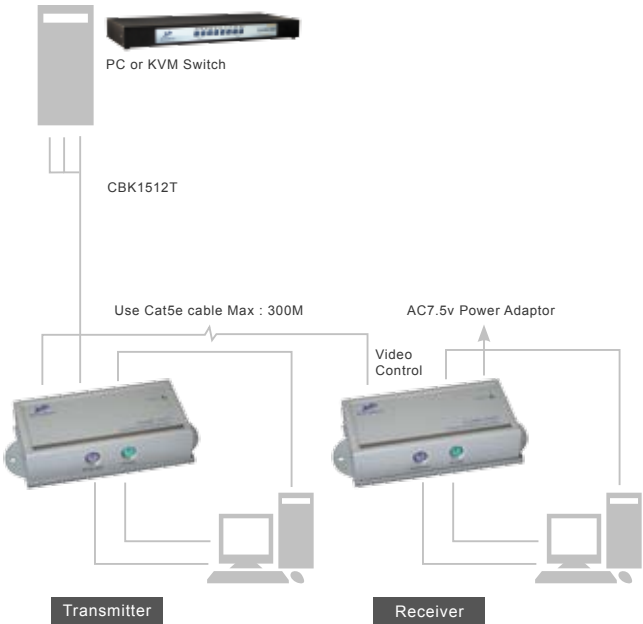
   (3) Power On: Plug power adapter to the Receiver and connect keyboard / video monitor / mouse to Receiver, the LEDs of unit should keep blinking to indicate the unconnected status of UTP cable.

Receiver

AC7.5v Power Adaptor

Video Control

Installation of Receiver

(4) Connect UTP cable: Plug two ends of UTP cable to Transmitter and Receiver's RJ45 SYSTEM LINK ports. (Please make sure that these two ends should be made by 586B/568B type.) Now the LEDs above RJ-45 should turn on indicate the activation of video signal and the correct connection of UTP cable. If the LED keep blinking, please check if there does any error exist.

PC or KVM Switch

CBK1512T

Use Cat5e cable Max : 300M

AC7.5v Power Adaptor

Video Control

Transmitter

Receiver

Connection Diagram of KVM Extender

(5) Function Test: After above installation, you will be able to operate from the Receiver unit – complete control of keyboard / video monitor / mouse. During the operation of Receiver side, the STATUS LED of Transmitter will turn on red to indicate the operation of Receiver's user and can only view and unable to control the connected PC or KVM. In the other way, during the operation of Transmitter unit, the STATUS LED of Receiver will turn on red to indicate the operation of Receiver's user.

(6) Manual VGA Adjustment: The video quality can be manually adjusted by the control of GAIN and FOCUS in the back of Receiver unit.

(7) Video Problem & Solving: If you find unstable image or unable to display after the installation, please confirm following items or contact your direct vendor for further assistance
  A. Check if PC's VGA resolution and frequency over the limit of monitor, if so, please change the VGA configuration to an acceptable level.
  B. Ensure all equipment has correct grounding and AC outlets on the same electronic phase; also don't use 2-wire extension cord to prevent potential power damage or interference.
  C. Check if the Receiver's power adapter is AC7.5V with a capacity over 1 Amp.
  D. Try to connect Monitor directly to PC, and ensure the basic function of VGA output and monitor display.
  E. If using LCD monitor, there might have some image offset or blinking, please adjust the position, clock or phase of monitor status, or simply press "Auto Adjust/Tune" to have a better image solution.

(8) Keyboard / Mouse Problem & Solving: If you have any keyboard or mouse irregularity during installation or operation, please try following items

A. RESET Signal: Please first ensure good connection of system, and then reconnect the HD15 connector of CBK1512T or the UTP cable, and then reboot your PC. After RESET process, your keyboard and mouse should go back to its normal function, or you should check from the original signal resources.

B. Transmitter Unit Check: In the Transmitter side, try to connect keyboard / video monitor / mouse connect directly to your PC or KVM Switch console to verify the regular function. Or try to reboot your system or change keyboard, monitor or mouse, to have your original signal (PC or KVM Switch) working normally.

C. Receiver Unit Check: Try to unplug and plug the power adapter, and verify the LED indicators, and reconnect UTP cable, make sure SYSTEM LINK LED turn on normally, and then check the basic function of keyboard, monitor and mouse. If you find any part not working, try to replace with a normal one.

◈ Specification

Spec. \ Model	KVME-300	
	Transmitter (KVME-300T)	Receiver (KVME-300R)
Keyboard	PS/2 Female	
Mouse	PS/2 Female	
Video Monltor	D-Sub 15 Female	
To KVM1/KVM2	Integrated D-Sub 15pin KVM cable	
System Link	RJ-45	
LED Display	Status, H. Sync, V. Sync	
Max, Resolution and distance	2048 x 1536 x 75Hz@300M	
Power Consumption	PS/2 AC7.5V, 250mA	AC7.5V, 250mA
Dimension(L * W * H)	62 x 113 x 29mm	
Environmental Condition	* Operation Temp.: 0~50 ℃ * Storage Temp.: -20~60 ℃ * Humidity: 10~90%	

⊕ Order Information

Order Details	Part Number	Remark
KVME-300 Transmitter	KVME-300T	CBK1512T x 1, Rack Kit x 1
KVME-300 Receiver	KVME-300R	With AC7.5V Power Adaptor x 1, Rack Kit x 1

◐ Remarks

1. Before operating this KVM Extender, please read operation manual carefully.
2. Please use correct power adapter and use high quality cable for optimum operation.
3. To prevent potential power damage, please don't use 2 –wire extension cord and ensure AC outlets at relative devices on the same electronic phase and have correct grounding.
4. Limited Warranty:
    (1) In no events shall the direct vendor's liability for direct or indirect, special, incidental or consequential damages, loss of profit, loss of business, or financial loss which hay be caused by the use of the product exceeds the price paid for the product.
    (2) The direct vendor makes no warranty or representation, expressed or implied with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.
    (3) The direct vendor also reserves the right to revise or update the product or documentation without obligation to notify any user of such revisions or updates. For further information, please contact your direct vendor.