

TOUCH SCREEN EXTENDER

VGA Data Extender

VDE-300

TRANSMITTER : VDE-300T

RECEIVER : VDE-300R

User Manual



VDE-300

Transmitter : VDE-300T

Receiver : VDE-300R



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INTRODUCTION

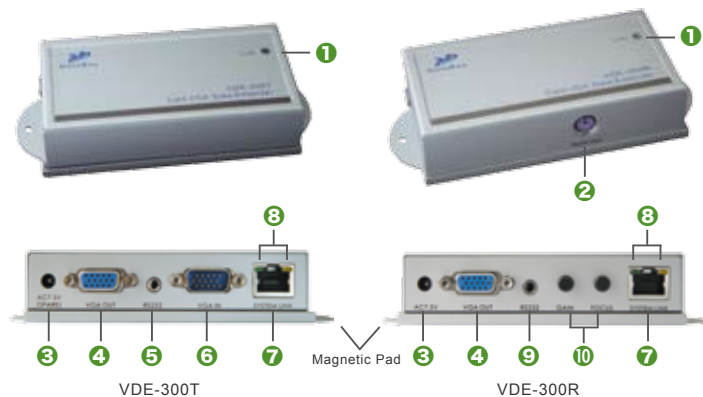
VDE-300 is an extension system to transmit VGA and RS-232 Data (Tx/Rx) over Cat5/5e/6 cable up to 300 meters. VDE-300 consists of a Transmitter and a Receiver unit, the Transmitter is placed near PC and the Receiver near Touch Screen. And then use Cat5/5e/6 cable to link together. It is suitable for the interactive application of Touch Screen Extension and Flat Panel Remote Control. It can simplify the installation, ease to maintain and reach a longer distance. The video quality can be adjusted very easily from the FOCUS and GAIN Control in the Receiver. Now, you can centralize PC and servers in a secured place and extend the VGA and Data signal up to 300 meters to fulfill multi-purpose application.

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

KEY FEATURES

1. Extend VGA and Data signal over Cat5/5e/6 cable and the maximum VGA resolution is up to 2048x1536@300m
2. Bidirectional serial RS-232 (Tx/Rx) control
3. Remote and local monitors can display simultaneously.
4. Use Cat5 Enhance UTP cable (350MHz bandwidth) for best quality (for long distance, the Belden DataTwist 350 UTP - #1700A-Solid is suggested)
5. Software free, pure hardware design, support Plug & Play
6. Support VGA, SVGA, XGA, TFT_LCD with DDC2B function
7. Provides a magnetic pad and attachable metal plate to ease the installation
8. Transmitter VDE-300T:
 - (1) Built in one set of VGA(DB15) and Data(with a DB9 adaptor cable) inputs
 - (2) Built in one set of VGA(DB15) output for monitoring
 - (3) Built in one RJ-45 port for system output which can be connected by UTP cable and send signal to one set of System Receiver
9. Receiver VDE-300R:
 - (1) Build in video and focus control to adjust the video quality, the maximum extended VGA resolution and distance up to 2048x1536@300m.
 - (2) Built in one set of VGA(DB15) and Data(with a DB9 adaptor cable) output for Touch Screen
 - (3) A PS/2 connector to provide DC5V power for Touch Screen's RS-232 control.

PANEL DESCRIPTION



- | | | |
|-------------------------------------|------------------------------|---|
| 1 Tx / Rx Status | 5 To Serial port | 9 To Serial connection of Touch Screen |
| 2 DC 5V out for Touch Screen | 6 To PC VGA | 10 Video Control |
| 3 Power Jack (Optional) | 7 System Link | |
| 4 To Monitor | 8 H & V Sync Activity | |



DB9 Female VDE Cable



VGA Cable 1M



DB9 Male VDE Cable

● INSTALLATION AND OPERATION

1. VGA Data Device Installation

(1) Setup: In the beginning, please follow the instruction of the user manual of VGA Data Device to install and test its basic function. Such VGA Data device can be Touch Screen, Flat Panel or Projector with a RS-232 Tx/Rx control and in this manual we are using Touch Screen to illustrate the installation. Please note that you might need to install certain software to activate the RS-232 Tx/Rx communication.

(2) After testing above device locally, you are ready to use VDE-300 to extend the VGA Data signal over Cat5/5e/6 cable and control remotely.

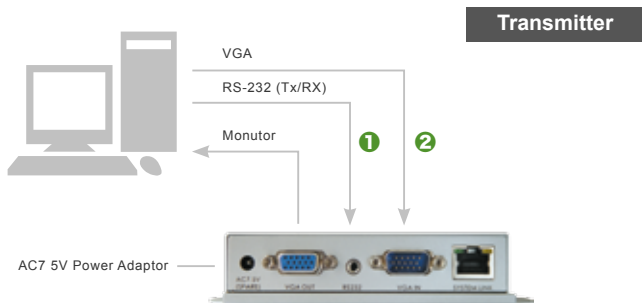
2. VDE-300T Transmitter Installation:

(1) Site Selection: Place Transmitter near the PC; 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) 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.



① DB9 Female VDE Cable



② VGA Cable Male to Female 1m

- (3) Power On: Plug power adapter to the Receiver and connect Touch Screen's VGA and Serial connection to Receiver. For most of the Touch Screen (Serial Connection), it will be required to take the power from PS/2 to activate the Tx/Rx communication, so the Receiver has built in a PS/2 port to provide a DC5V power for Touch Screen. The LEDs of the STATUS will stay on Blue to indicate power on status and the RJ-45 LEDs will blink to indicate the unconnected status of Cat5/5e/6 cable.

3. Receiver Installation and UTP Connection:

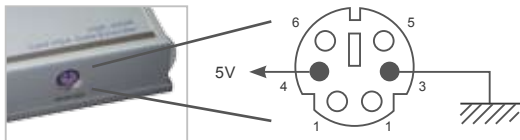
- (1) Site Selection: Please place Receiver in an appropriate place and have the UTP cable (Cat5/5e/6 cable and Cat5e is preferred) settled for later connection. You can use magnetic pad to attach the unit on a metal plane (Ex PC / Server enclosure) or use attachable rack mounting kit to fix the unit on selected area by screw or nail.

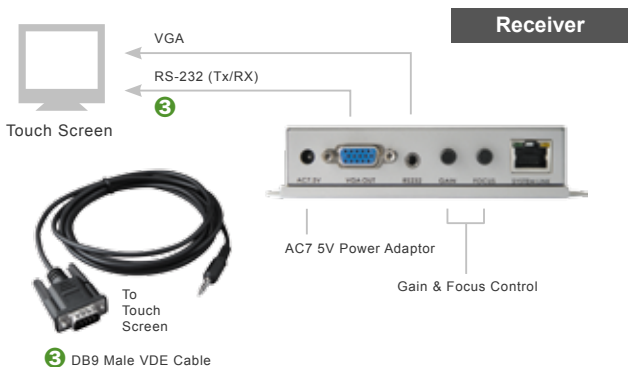


Unit attached with Rack Mounting Kit and the Rack Mounting Kit

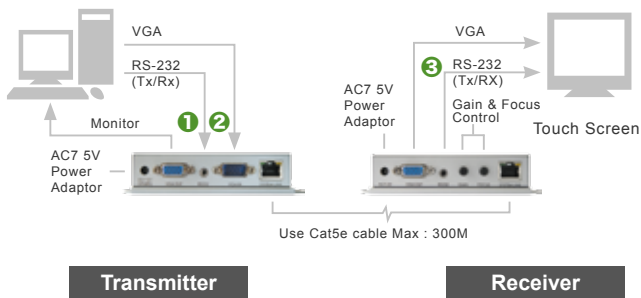
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The PS/2 Connector is Used to Provide a DC5V Power for Touch Screen Mounting Kit





- (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 remain ON to indicate the activation of video signal and the correct connection of UTP cable. If the LED keeps blinking, please check if there is any error to exist.



System Diagram of VGA Data Extender



1 DB9 Female VDE Cable



2 VGA Cable 1M



3 DB9 Male VDE Cable

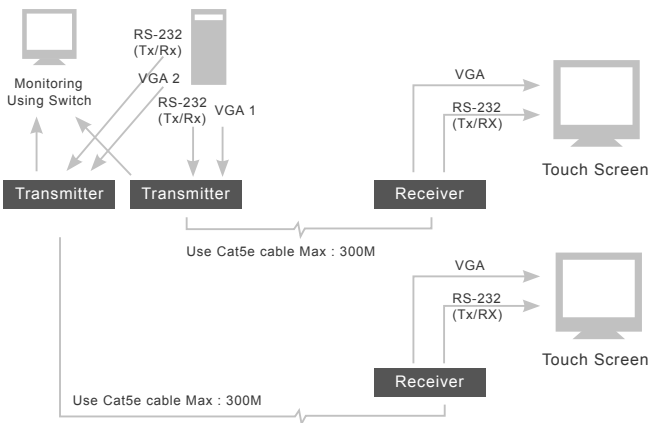
- (5) Function Test: Power on the Touch Screen or other VGA Data Devices and then boot up your PC. You should be able to test the function of Touch Screen remotely, and during the operation, the STATUS LED will keep blinking between blue and red to indicate the Tx/Rx data communication.
- (6) Manual VGA Adjustment: The video quality can be manually adjusted by the control of GAIN and FOCUS in the back of Receiver unit.
- (7) VGA 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 Touch Screen directly to PC, and ensure the basic function of VGA output, monitor display and Touch Screen control.
 - 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) RS-232 Tx/Rx Problem & Solving: If you have any RS-232 Tx/Rx irregularity during installation or operation, please try following items

- A. Transmitter Unit Check: In the Transmitter side, try to connect the Touch Screen directly to your PC to verify the regular function. Or try to reboot your system or change connected devices to have your original PC signal working normally.
- B. 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 Touch Screen.

4. Other System Integration:

(1) Illustration of More Touch Screen installed in a PC: If you have a Multi-Console PC, you may connect more Touch Screens to save the equipment cost and take the advantage of VGA Data Extender to locate PC in a secured place and to provide a simple way to maintain.



System Integration for a Multi-Console PC supporting Two Extended Touch Screens

- (2) KVM Switch and Drawer: If you have more than one PC in a location, you may use a KVM Switch to control many PCs through one KVM console (Keyboard / Video / Mouse), or use integrated KVM Switch – KVM Drawer to use just 1U space to control many computers.
- (3) Remote and IP Solution: In addition to KVM Switch, you may extend the KVM control by KVM Extender up to 300 meters or use IP KVM solution to control PC / Servers from intranet or internet.
- (4) For more detailed information or consultation, please contact your system supplier.

SPECIFICATION

Spec. \ Model	VDE-300T	VDE-300R
Description	One-Port AV Transmitter	One-Port AV Receiver
AV Input	DB15/DB9	RJ45
AV Output	DB15/RJ45	DB15/DB9
Video CTRL	N / A	Gain/Focus
LED	Tx / Rx	
Power Input	AC7.5V	AC7.5V
Power output	-	DC5V
Video Quality	1280×1024×60Hz@300M, 1600×1200×60Hz@200M	
Dimension (U×W×H)	62×113×29	62×113×29

ORDER INFORMATION

Order Details	Part Number	Remark
VDE-300 Transmitter	VDE-300T	With Power Adaptor x 1, DB9 adaptor cable x 1, Rack Kit x 1
VDE-300 Receiver	VDE-300R	With Power Adaptor x 1, DB9 adaptor cable x 1, Rack Kit x 1

REMARKS

1. Before operating this system, please read operation manual carefully.
2. Please use correct power adapter and use high quality cable for optimum broadcasting.
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.
5. 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 may 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.



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