



VGA Monitor, Keyboard, and Mouse Long Range CAT5 Extender Model: VGUSB100C

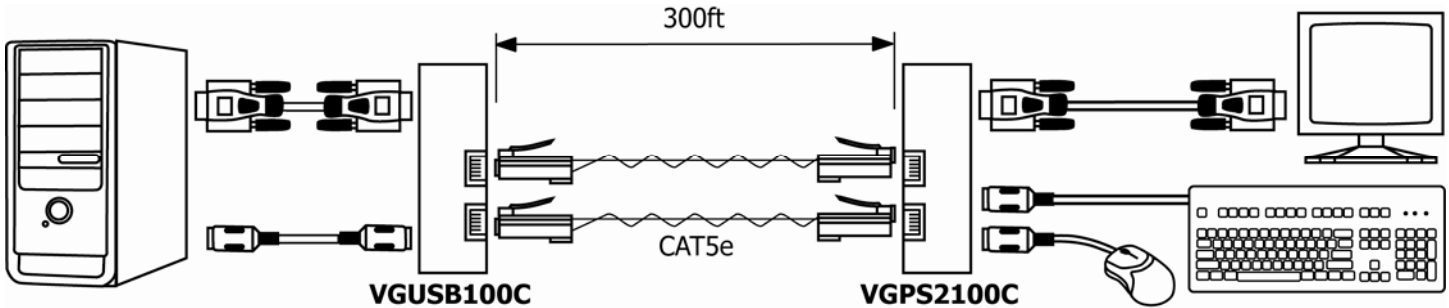


Features:

- Identical to VGPS2100C, but the keyboard and mouse is a **USB Interface** in the local unit.
- Extend VGA and Keyboard mouse over 2 CAT5 UTP cable.
- Includes local and remote units.
- Distance ranges up to 300ft / 100m via standard 4 pairs CAT5 UTP or STP cable instead of VGA cable.
- Built-in DIP switch for compatibility with all monitors when using CAT5 UTP cable.
- Supports up to 1280x1024 pixels at 200Ft / 60M.
- Passive device; Does not support VGA DDC protocol.
- Perfect for classrooms, lecture halls, tradeshow, video information displays...etc.



Wiring Diagram:



Panel View:



| Max. Distance via CAT 5 Cable | |
|-------------------------------|--------------|
| 800x600 pixels (30MHz) | 300ft / 100m |
| 1024x768 pixels (60MHz) | 250ft / 75m |
| 1280x1024 pixels (100MHz) | 200ft / 60m |

Specification:

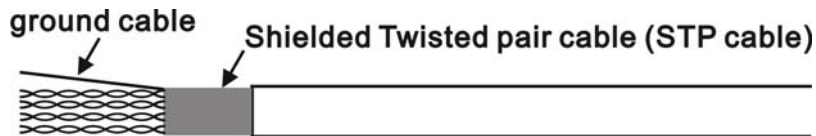
| | |
|----------------------------|--|
| Model | VGPS2100C |
| Environment | VGA. VESA VP&D 1.0, VIP ver 2.0 |
| Devices | VGA monitors, LCD projection screen, Laptops, PCs. |
| Input Signals | Video : 1.1V P-P Horiz & Vert Sync : TTL standard. 300kHz max. bandwidth |
| Insertion Loss | Less than 3dB per pair over the frequency range |
| Video Signal Return Loss | -15dB max from DC to 60Mhz |
| RJ-45 Pin Configuration | R video (Red): Pin 1 (+) Pin 2 (-) Balanced G video (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 |
| Dip Switch | 5 stage, up to 32 combinations |
| Transmission Distance | Up to 300ft / 100m (depend on image resolution) |
| Cable | UTP / STP CAT5 Cable (AWG24) |
| Operation Temperature | 0° ~ 55 °C |
| Storage Temperature | -20° ~ 85 °C |
| Humidity | Up to 95% RH |
| Dimensions W x H x D mm | 108 x 74 x 27mm |

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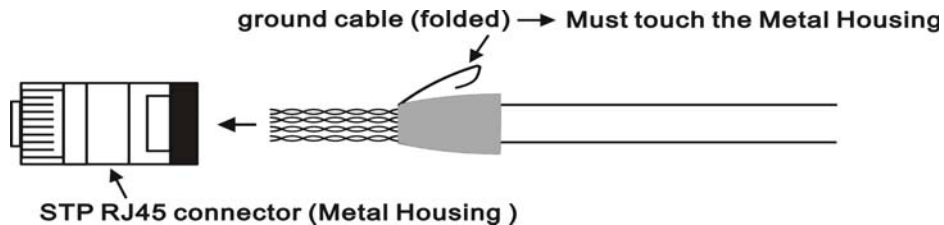
Application Tips:

The correct cabling connection when use STP cable is as follows:

- 1. STP (shielding twisted pair) Cable.

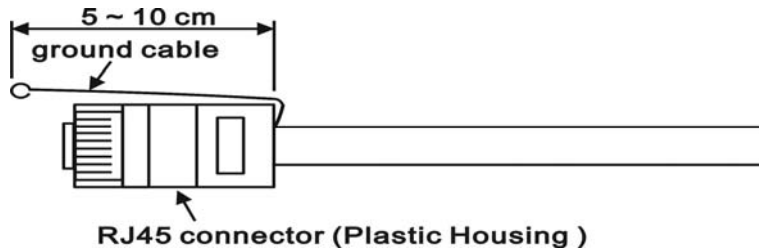


- 2. STP (shielding) RJ45 connector with STP cable connection.

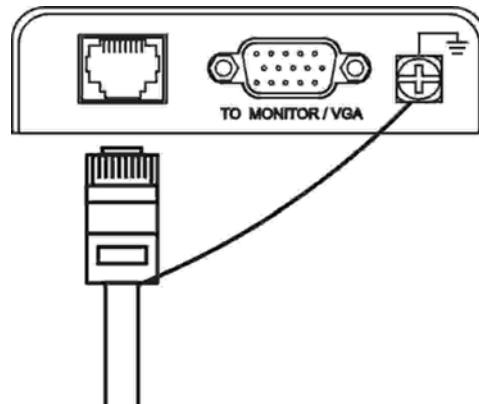


If your RJ45 connector is plastic housing (unshielded), then the cable connection must do the following:

1. The ground cable must pull out around 5-10cm length to connect with VGA Extender's ground screw for grounding.



2. Make the ground cable connect to ground screw, then plug RJ45 connector.



Installation:

CAUTION: Make sure to follow this instruction for DIP switch setting when using **CAT5 UTP cable**. Please disconnect the wiring from the receiver to monitor when the picture is not normal, otherwise it may damage your monitor. To have the best picture and quick installation, please use STP cable. There is no need to adjust Dip switch when using STP (shielding twisted pair) cable.

* There is no need to adjust Dip switch when using STP (shielding twisted pair) cable.

* Follow setup below for Dip Switch setting when using with UTP cable.

1. Set up the Dip switch setting from stage 2 or 3 for both transmitter and receiver and check all wiring and setting, then connect the monitor.
2. Please disconnect the receiver from the monitor if the picture is not normal, or when there is no picture display. Then increase the stage of Dip switch at the receiver and re-connect again.
3. If still no picture display, try to increase the stage of Dip switch at the transmitter and re-connect again.
4. The picture may be distorted at the upper side when using a CRT monitor. If this happens, you could increase the stage of Dip switch at the transmitter to improve picture quality.
5. Dip switch by accumulate setting. For Example:
 $3 + 2 + 1 = 6$
 $3 + 2 = 5$
 $3 + 1 = 4$
 $3 = 3$
6. Improper setting may cause no picture display.
7. After the setup, you could adjust the contrast and brightness of the monitor for the best picture quality.

Troubleshooting at picture problem:

1. Picture disappear intermittence or no picture display:

Please adjust the Dip switch setting or change the vertical SYNC frequency of the VGA display card, DVR.

2. Display not syncing up properly:

There are some certain models or brands of monitors with very high demand at sync-sensitive and the DIP switch setting may not compensate properly. Please use STP (shielding twisted pair) cable instead of UTP (unshielded twisted pair) cable.

3. Blur picture or Loss of image details:

This may occur as the length of twisted pair cable increases, due to the effects of attenuations. Please change the active type of VGA extender to have a built-in amplifier function to improve the picture, or try to adjust the contrast and brightness of the monitor. If the application operates adequately at a lower resolution (i.e. 800x 600 instead of 1024 x768), then setting the monitor to a lower resolution will help improve the image. Please note the higher DIP switch setting for sync compensation may cause more video signal loss or no picture.

4. Flutter:

Flutter occurs when the background fluctuates between light and dark. This status may be caused by the grounding problem between the VGA equipment or the connection may be picking up some external interference from a nearby power transformer. To fix this problem, change the cable to an STP cable.

5. Ghosting:

Ghosting is characterized by a second video image being received after the main image, resulting in a double image. This is usually caused by the UTP cable connection itself, poor crimping, untwisted pairs, some of the twisted pairs may be longer than others, poor quality cable, or the impedance mismatch of the cable. In these cases, the best way is to replace the existing cable with a new one.

6. Wrong colors:

If the wrong colors appear in an image (for example: blue appears where green should appear), the problem may be caused by poor crimp at RJ45 connector or wrong pin connection. Please check all connections and verify the pin configuration of the cable between CPU and the monitor to ensure that the correct pin configuration is respected.

Note:

1. 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.
2. All wiring is "straight-through" twisted pair cable, not being used for other LAN or telephone equipment. Do not connect the VGA Extender to a telecommunication outlet wired to unrelated equipment.