

Cat Code: **VGA-BalUn** extender allows VGA signals to be transmitted up to 135 meters via 4-pair Cat-5/6 SHIELDED or Unshielded *not recommended* twisted pair LAN cable. Used in pairs (TX & RX) VGA-Balun provides a fast and effective solution for many home & commercial applications eliminating the need to use costly and bulky VGA cable. VGA-Balun extender can be used in home or commercial applications as a smart, fast and cost-effective solution that eliminates costly and bulky VGA cable. VGA Displays may be connected at extended distances from PC via standard shielded twisted pair LAN cable. Ideal for classrooms video distribution, lecture halls, retail kiosks, video information displays, overhead projector systems, PC-training systems, tradeshow demonstrations, etc.

Features:

- VGA to RJ45 female connectors on each TX & RX BalUn.
- Up to 135 meters using high quality 4 pair Cat-5/6 **STP** cable.
- 32 level adjustment for use with CAT5 **UTP** (*not recommended*) cable.
- Suitable for resolutions up to 1280 x 1024 @ 50 Hz.
- This is a passive device it does not support VGA DDC protocol.
- Perfect for classrooms, lecture halls, tradeshows, video information displays...etc.

Installation:

CAUTION: Be sure to carefully follow these instructions for DIP switch setting **when using Cat-5/6 UTP cable** (*not recommended*). **Immediately disconnect VGA Cable from receiver to monitor if the picture is not normal otherwise monitor may be damaged.**

*** There is no need to adjust Dip Switch when using STP (Shielded Twisted Pair) cable.**

*** Dip Switch setting when using UTP cable.**

1. Set Dip Switch setting to level 2 or 3 on both TX and RX, check all wiring and connect monitor.
2. **Immediately disconnect VGA Cable from receiver to monitor if the picture is not normal otherwise monitor may be damaged**, increase the DIP Switch level on RX and re-connect.
3. If picture is not normal increase the Dip Switch level on TX and re-connect again.
4. If the picture is distorted at the upper side (CRT monitor) try increasing DIP Switch level on TX to improve picture.
5. The Dip Switches (Binary) provide 32 levels from 0 to 31, Switch 1 has a value of 1, Switch 2 has a value of 2, Switch 3 has a value of 4, Switch 4 has a value of 8 and Switch 5 has a value of 16.

For example with:

All Sw Off, level = 0

Sw 1 On, level = 1

Sw 1 & Sw 2 On, level = 3

Sw 1 & Sw 2 & Sw 3 On, level = 7

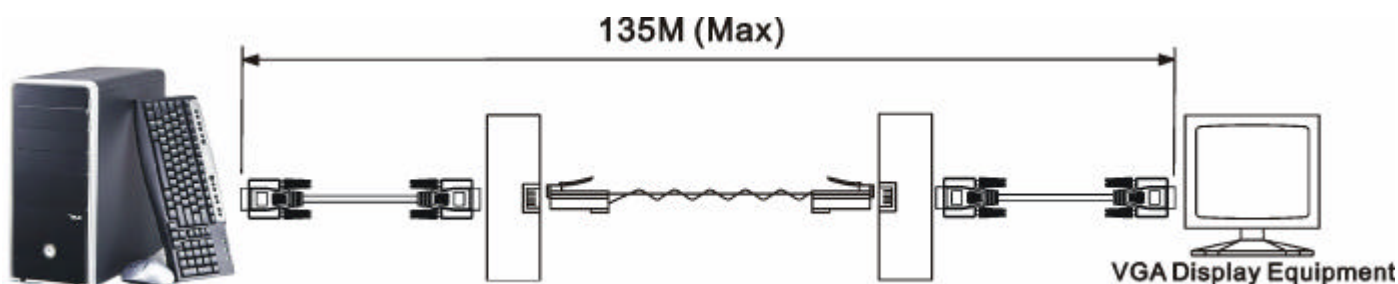
Sw 1 & Sw 2 & Sw 3 & Sw 4 On, level = 15

Sw 1 & Sw 2 & Sw 3 & Sw 4 & Sw 5 On, level = 31

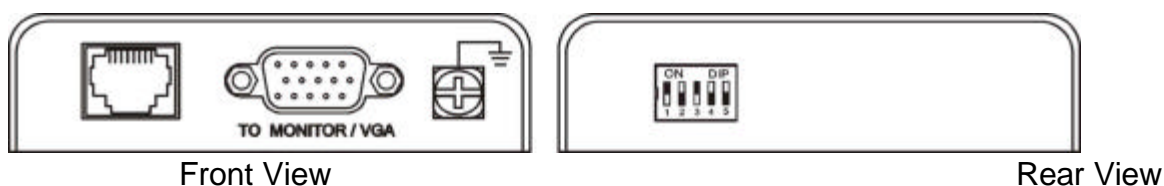
Sw 1 & Sw 5 On, level = 17

6. Improper setting may result in no picture.

Installation View :



Panel View:



Max. Distance via Cat-5/6 Cable	
640 x 480 pixels (15MHz)	135M
800 x 600 pixels (30MHz)	105M
1024 x 768 pixels (60MHz)	75M
1280 x 1024 pixels (100MHz)	60M

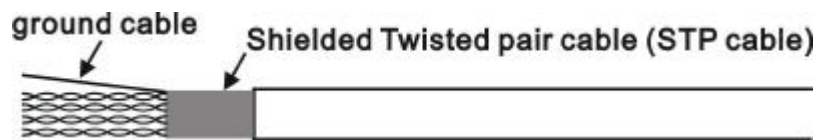
Specification:

Devices	VGA Monitors, LCD Projectors, Laptops, PCs, DVMR, etc.
Input Signals	Video: 0.7 V P-P
	Horiz & Vert Sync: TTL standard. 300kHz max.
Insertion Loss	Approximately 3dB per pair over the frequency range
Video Signal Return Loss	Approximately -15dB max from DC to 60Mhz
RJ45 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/Output RGB 75 ohms (HD-15) Unbalanced
	Interconnections: RGB 100 ohms (RJ45 shielded) Balanced
	Horizontal and Vertical sync : TTL standard
Dip Switch	5 stage, up to 32 combinations
Transmission Distance	60 -135 meters depend on image resolution
CABLE FOR RJ-45	High Quality Cat-5/6 SHIELDED or UTP

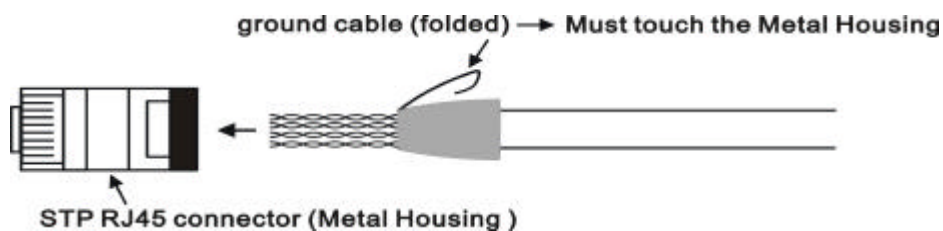
Application Tips:

Following is the correct cable connection when use STP cable:

1. STP (shielding twisted pair) Cable.

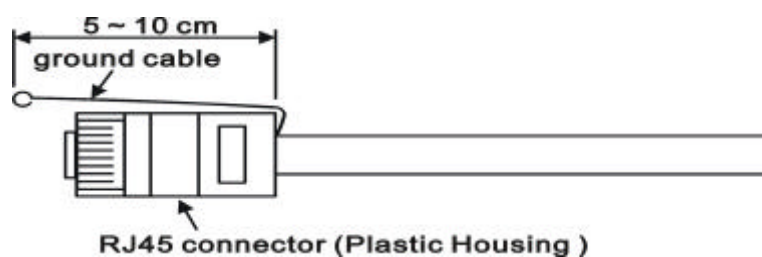


2. STP (shielding) RJ45 connector with STP cable connection.

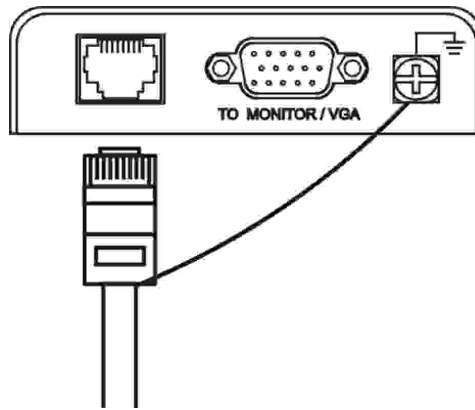


If your RJ45 connector is plastic housing (unshielded), then the cable connection must do the following:

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.



Troubleshooting:

1. Check all the connections and verify the pin-out.
2. The maximum distance depends on the cable type (Cat-5, Cat-6, UTP, STP) cable quality, image resolution, image refresh rate & equipment output levels / input sensitivity.
3. All wiring must be "straight-through" twisted pair cable, ideally without joins or other terminations.
4. Do not connect TP-VGA to a telecommunication outlet wired to unrelated equipment.
5. Replace the TP-VGA with another one that is known to be working.