

## CAT5 VGA Extender

### ITEM NO.: HTA-TTP111VGA

The VGA Extender allows VGA video signals to be transmitted up to 135 meters via 4-pairs CAT5 STP or UTP cable. Used in pairs, the VGA Extender is used in home or commercial applications as a smart, fast and cost-effective, eliminates costly and bulky VGA cable, allowing VGA monitors to be connected extended distances from the PC via standard twisted pair cable. Ideal for classrooms video distribution, lecture halls, retail kiosks, video information displays, overhead projector systems, PC-training systems, and tradeshow PC demo systems.

### Features:

- Passive device, no power required.
- Including 2 units as transmitter and receiver.
- Supports up to 1280x1024 pixels.
- **Up to 135 meters via standard 4 pairs CAT5 STP or UTP cable instead of VGA cable.**
- **Transmitter built in virtual DDC to avoid improperly setting at resolution and frequency.**
- **Transmitter built in sync mode selection for signal stability.**
- **Receiver built in sync filter level adjustment for signal stability.**
- Perfect for classrooms, lecture halls, tradeshow, video information displays...etc.

### Installation:

#### Recommend Cable:

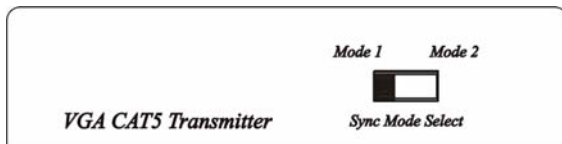
1. CAT5e UTP/STP or Cat6 UTP cable.
2. There are some certain models or brands of monitors with very high demand at sync-sensitive, recommend use STP (shielding twisted pair) cable to instead of UTP (unshielded twisted pair) cable.

#### RJ45 Pin Configuration: TIA/EIA 568B Wiring standard

<b>1. Orange-white</b>	<b>Red +</b>
<b>2. Orange</b>	<b>Red -</b>
<b>3. Green-white</b>	<b>H-Sync</b>
<b>4. Blue</b>	<b>Green +</b>
<b>5. Blue-white</b>	<b>Green -</b>
<b>6. Green</b>	<b>V-Sync</b>
<b>7. Brown-white</b>	<b>Blue +</b>
<b>8. Brown</b>	<b>Blue -</b>

### Switch Setting:

#### TTP111VGA-T Sync Mode Select



← **Mode 1**  
→ **Mode 2**

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 picture still not normal after adjust the dip switch of HTA-TTP111VGA-R. Then please use STP (shielding twisted pair) cable.

## DIP Switch Setting:

### HTA-TTP111VGA-R Sync Filter Level

=====

1 2 3 4 5

↓ ↓ ↓ ↓ ↓ Level 0 (Min)

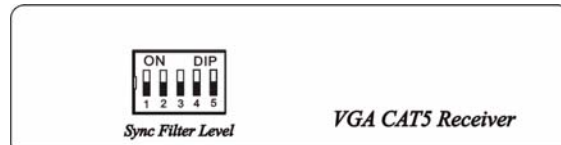
↑ ↓ ↓ ↓ ↓ Level 1

↓ ↑ ↓ ↓ ↓ Level 2

↓ ↓ ↑ ↓ ↓ Level 3

↓ ↓ ↓ ↑ ↓ Level 4

↓ ↓ ↓ ↓ ↑ Level 5 (Max)



**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 electro magnetic equipment, i.e. microwave, wireless, hi 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.

## Troubleshooting at picture problem:

### 1. No picture display:

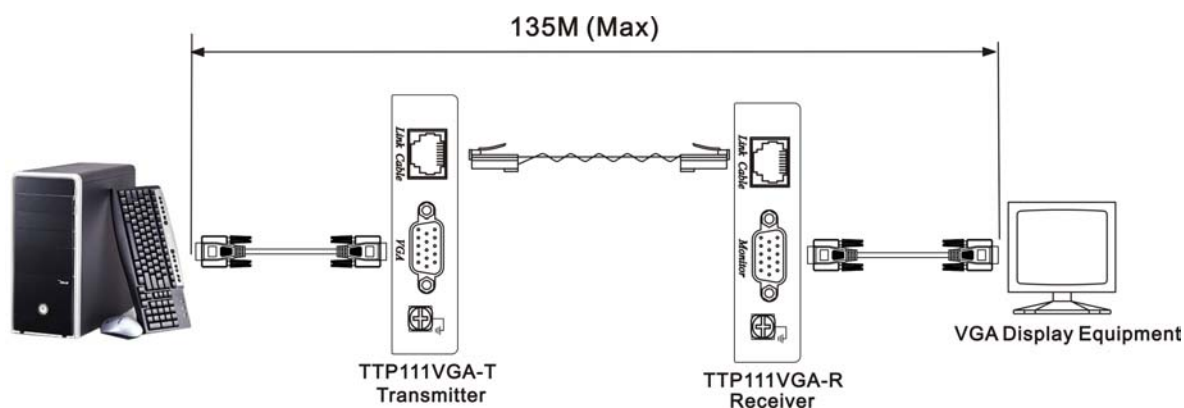
Check Link cable.  
Check DIP switch setting.  
Check VGA cables connect.  
Change the resolution or frequency.  
Change Link cable for STP cable.

### 2. Picture not stable or disappear intermittence or no picture display:

Check DIP switch setting.  
Change the resolution or frequency.  
Try to avoid wire away from electro magnetic equipments.  
Change Link cable for STP cable.

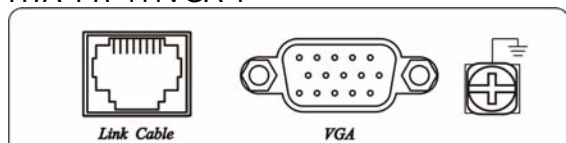
### 3. Picture tilt:

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

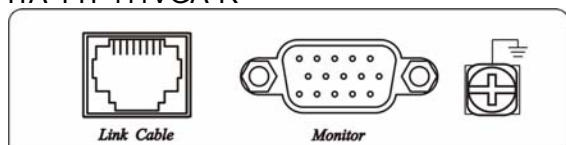


### Panel View:

HTA-TTP111VGA-T



HTA-TTP111VGA-R



Max. Distance via CAT 5 Cable	
640x480 pixels (15MHz)	135M
800x600 pixels (30MHz)	105M
1024x768 pixels (60MHz)	75M
1280x1024 pixels (100MHz)	60M

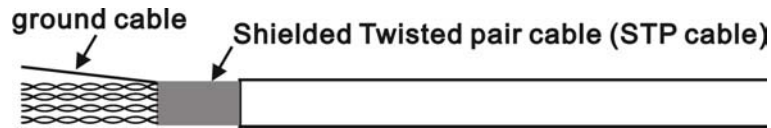
### Specification:

ITEM NO.	HTA-TTP111VGA-T	HTA-TTP111VGA-R
Devices	DVR, VGA Monitors, Projectors, Laptops, PCs.	
Input Signals	Video: 1 Vp-p	
	Horizontal & Vertical 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	
RJ45 Pin Configuration: EIA 568B Wiring standard	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	Input : RGB 100 ohms (RJ45 shielded) Balanced
	Output : RGB 100 ohms (RJ45 shielded) Balanced	Output : RGB 75 ohms (DB15 HD) Unbalanced
	Horizontal and vertical sync : TTL standard	
Setting Switch	2 Stage Slide Switch	5 Stage Dip Switch
Transmission Distance	60 -135 meters depend on image resolution	
Link Cable	Cat5 / Cat5e / Cat6 / STP or UTP Cable	
Temperature	Operation: 0 to 55 C, Storage: -20 TO 85 c, Humidity: up to 95%	
Dimensions W x H x D mm	110x77x26	

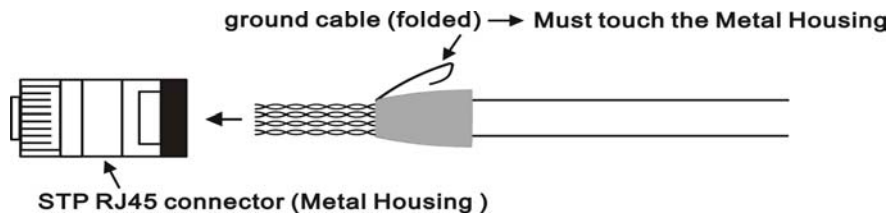
## Application Tips to use CAT5 STP cable:

**Following is the correct cable connection when use STP cable:**

1. STP (shielding twisted pair) Cable.

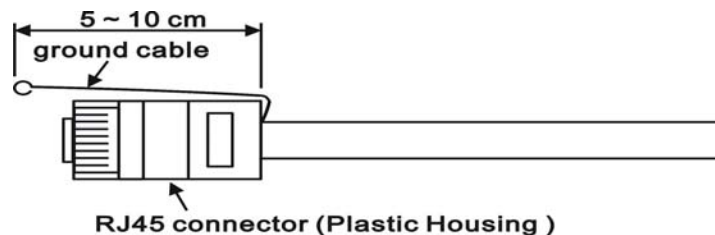


2. STP (shielding) RJ45 connector with STP cable connection.



**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.

