

Active UTP Video Transmitter

Transmitter is to convert the video signal into the balanced signal applicable to be transmitted on common Cat-5 unshielded twisted pair wire with perfect transmission effect, which can be applied in the occasions such as video monitoring and video meeting and can transmit four channels of video image simultaneously on an 8-core Cat-5 twisted pair wire. It can simplify the wiring project and save wire use quantity.

Features:

- Adopt differential signal transmission with excellent anti-jamming ability
- Save project wire expenses, each a pair of twisted pair wire transmits one channel of video signal and one common Cat-5 unshielded twisted pair wire can simultaneously transmit four channels of video signal
- The farthest transmission distance can reach 2400m if it is used with active receiver
- Built-in transient suppression protection

Technical specifications:

- Frequency response DC-8MHZ
- Impedance: BNC terminal: 75Ω, Connection terminal: 100Ω
- Working temperature: -10°C-70°C
- Storage temperature: -30°C-70°C
- Applicable to NTSC, PAL, SECAM and CCIR systems
- External dimension: 105mm*58mm*29mm (excluding BNC)
- Power supply: DC12V

Type of the required wire:

Unshielded Cat-5 or above twisted pair wire (Please use standard Cat-5 or above twisted pair wire. The wire quality will directly affect the transmitted image effect and transmission distance.)

Characteristic impedance: 100Ω±20Ω

DC loop resistance: 18Ω/100m

Differential capacitance: 62pf/m (maximum)

Connection method:

Connect the two-color wires of a pair of Cat-5 unshielded twisted pair wire to the '+' terminal of the green socket and connect the single-color wires to the '-' terminal of the green socket. Connect the BNC interface of the transmitter to the BNC interface of the camera. If there is any joint in the circuit, please adopt welding method or special junction box to ensure perfect contact at the joint.

Please be sure to connect the interface marked with '⏏'

symbol to the ground wire of the lighting-proof system with the copper conductor with sectional area $\geq 1.5 \text{ mm}^2$!

Adjusting method:

Adjust and slide the switch according to the distance. The switch can be slid to the lowest level when the distance is between 1400m and 1700m, the switch can be slid to the middle level when the distance is between 1700m and 2000m and the switch can be slid to the highest level when the distance is more than 2000m (as shown in following figure). This data is the test result of our company with standard unshielded Cat-5 twisted pair wire and it can be applied flexibly according to the actual wire situation in the practical application.



Frequently Asked Questions

Why does my video look like a scrambled Cable TV signal?

This typically indicates reversed polarity.

Can shielded twisted pair be used?

Some customers have successfully used shielded wire up to a few hundred feet. However we does not recommend it. Its high-frequency roll-off will severely degrade the distance performance.

Can Category 6 wire be used?

Yes. Unshielded Twisted Pair wire, Category 5 or better, can be used with UTP video transceiver.

Can I transmit more than one video signal in a multi-pair wire bundle?

Yes. One of the benefits of using UTP video transceivers is interference rejection. UTP video signals can reside in the same wire bundle as multiple video signals, ringing telephones, Ethernet, low voltage power, RS-422, RS-485, etc.

Application Diagram

Active-Active UTP Video Transmission

