

**SINGLE CHANNEL ACTIVE CAT5 VIDEO TRANSCIVER**  
1500m/5000ft distance, fine image ADJ setting

# OPERATION MANUAL



Mini Video Transmitter



Mini Video Receiver

## Introduction

Single Channel UTP Video Transmitter and Video Receiver is an active (amplified) pair device that allows the extension of real-time monochrome or color video on up to 4000ft (with Image figure enhanced), using Category-5 Unshielded Twisted-Pair (UTP) CAT5 networking wire. Composite Video Broadcasting Base band (composite-CVBS/AV, PAL/NTSC/SECAM) signals of any video type are supported.

The unparalleled interference rejection and low emissions of the transceiver allows long run video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of shared or existing cable plant. Ground-lifting circuit design ensures no annoying "hum-bars" when ground potential differences exist. With built-in lightning protection, transient protection, ESD protection, Power line (12-24V AC/DC) contact protection, damaging voltage spike problems are eliminated.

## Equipment Specifications

Cable Distance Up to 1500m (5000ft) Transmitter-Receiver, Unshielded Twisted Pair (UTP) Cat 5/5e or better.

The transmission of real-time PAL, NTSC or SECAM video sign. Image figure enhanced (1 to 2 splitting outputs optional).

Lightning protection, Transient protection, ESD protection, Power line contact protection, damaging voltage spike problems are eliminated.

## CAT5 Video Transceiver System Configuration Diagram

Active CAT5 Video Transceiver over 3000ft CAT5 Cable Video Transmission in CCTV system



## Technical Specifications

Video Frequency Response: DC to 6 MHz  
AC Coupled Amplifier Mode, 100V/us transient responding  
Differential Gain: 0.5%, Differential Phase: 0.3°  
Distance Slide Switch 3-Step Adjustable for each transceiver.  
Potentiometer ADJ fine setting for image  
Common-mode/Differential-mode Rejection: 15KHz to 5 MHz, 65 dB typical.  
Channels Cross Talk: -68dB.  
Loop Return Loss: over 15dB  
Figure Enhanced Output: 4.43MHz extra emphasis  
Category Type Cat 5 or better. Impedance 100±20 ohms.  
DC Loop Resistance 52ohms per 1,000 ft (18 ohms per 100m).  
Differential Capacitance 19pF/ft max (62pF/m max).

### Line Impedance

Coax, female BNC 75 ohms.  
CAT5 line, terminal Block 100 ohms.

### Wire Type

Network Wiring One Unshielded Twisted Pair 24-16 AWG (0.5-1.31mm).Category Type Cat 5 or better.

Impedance 100±20 ohms.

DC Loop Resistance 52ohms per 1,000 ft (18 ohms per 100m).

Differential Capacitance 19pF/ft max (62pF/m max).

### LED Indicators

Power On Red Indicator LED Light.

Video Signal Present Yellow Indicator LED Light.

### Power Supply Range

Transmitter/Receiver: 12VDC (MAX 24V AC/DC).

Recommend Power Supply: 12V DC

### Environmental

Temperature -20°C to +65° C.

Humidity (non-condensing) 0 to 95%.

### Transient Immunity

6,000 V 1.2µS x 50 µS per ANSI/IEEE 587 C62.41 B3.

3,000 V 8µS x 20 µS when ground screw terminal is bonded to earth-ground.

## Installment

1: Put the video signal you need in the VIDEO IN/OUT of Transceiver.

2: Put a twisted-pair in the VIDEO+, - of CAT5 Video Transmitter and Receiver respectively.

3: Connect with the instructions shown in the system configuration diagram or sketch map, make sure that the power should be between DC12V or 24VAC. Recommend work in DC12V/200mA. Recommend to share 12VDC or 24VAC power supply with Camera in transmitter termination.

4: Set the position of slide switch (ADJ 1.2.3 step) for both Tx and Rx correctly according to the distance in Transceiver sub-surface.

5: After the 3 steps slide switch for Tx and Rx, and Potentiometer adjustment in Rx, the VIDEO output of CAT5 Video Receiver is ready to work.

### Check after Connection

1. Power On Red Indicator LED Light.

2. Video Signal Present Yellow Indicator LED Light.

3. Make sure that every wire is correctly and firmly connected.

### Mechanical

Dimensions excluding BNC 62X36X24mm. Material Metal

### Maintenance & Quality Guarantee

3 Year Warranty