

# CCT644



## Features

### 4-Channel Active Video Receiver Hub

- Full-motion color video signal up to 3900ft(1200m) via UTP cat5e/6
- NTSC, PAL & SECAM video format compatible
- Real-time transmission
- 12V/24V DC/AC power supply
- Adjustable for various distance
- Integrated 2 channel video distribution amplifier allows dual output
- Female BNC connector
- RJ45 and detachable terminal blocks for UTP cat5e/6
- Compatible with all cameras with built-in UTP transmitter
- Exceptional interference rejection
- 70 dB crosstalk and noise immunity
- Full ground-loop immunity
- Built in TVS(Transient Voltage Suppressors) for surge protection
- Lightning protection design Grade: V
- Compact size and easy installation
- Rack, wall mountable and desk application with 4 rubber feet
- Black galvanized housing



## Overview

The FS-4504R video balun hub is a active (amplified) device that allows the transmission of real-time CCTV video signal via cost-effective Unshielded Twisted Paired(UTP) cable. Baseband (composite) signals of any type are supported.

The FS-4504R is a compact unit. The power requirement is 12V/24V DC/AC. The pluggable screw terminal block of FS-4504R allows easy connection of UTP cable input. It receives 4 channel video signal from camera end via one UTP cable at distance up to 3900ft(1200m)when used with active video transmitter. The transmission distance reaches up to 2200ft(700m) when used with passive video transceiver. Its integrated 2 channel video distribution amplifier allows dual output to display video at both monitor and DVR.

The FS-4504R has a single distance adjustment as well as built-in surge suppression to protect video equipment against damaging voltage spikes. Its Integrated

---

Ground Loop isolation prevents annoying "hum-bars" common with long distance installations and its excellent crosstalk and noise immunity provides quality video up to the maximum distance. The superior interference rejection and low emissions of the FS-4504R allow video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of a shared or existing cable plant.

## Applications

- Security Monitoring System
- Multimedia Network Teaching System
- Medical Monitoring Display System
- Industrial Automation Control System
- Banking, securities, financial information display system
- Remote Network Server Monitoring
- Department Store Security
- Casino Security
- Hospitals, Airports and banks
- School Campuses

## Wire and Cable Recommendations

FS-4401R is recommended to use with Unshielded Twisted Paired (UTP) wiring from 24AWG through 22AWG. Individually shielded pairs should be avoided, as they reduce the operating range of the systems drastically. Multi-pair cable (25-pair or more) with an overall shield are acceptable. Video signals can coexist in the same wire bundle as telephone, datacom, or low-voltage power circuits. While video may be routed through telephone punch-down block terminals, any bridge-taps, also called T-taps and any resistive, capacitive or inductive devices MUST BE removed from the pair.

For more specific information regarding wire types, gauges and proper installation techniques, please contact us for technical assistance.

## Technical Specifications

|                 |                                         |                                                                               |
|-----------------|-----------------------------------------|-------------------------------------------------------------------------------|
| Model           |                                         | FS-4504R                                                                      |
| Product Name    |                                         | 4-Channel Active Video Receiver                                               |
| Applied Devices |                                         | CCTV cameras, monitors, DVR, switchers, IP encoders, and other CCTV equipment |
| Video           | Video Format                            | PAL, NTSC, SECAM                                                              |
|                 | Operating Frequency                     | DC to 6MHz                                                                    |
|                 | Max Distance                            | UTP Category 5e (24AWG) Color: 3900ft(1200m) B&W: 6500ft(2000m)               |
|                 | Common-mode/Differential-mode rejection | 70 dB typ                                                                     |
|                 | Impedance                               | Coax, female BNC 75 ohms                                                      |
|                 |                                         | UTP, Screw terminal block or RJ45 100 ohms                                    |
|                 | Video Distance Adjustment               | 4-position dip switches                                                       |
| LED Indicators  | Red                                     | Power-On                                                                      |
|                 | Yellow                                  | "Active" signal present                                                       |
| Wire Type       | Network Wiring                          | One Unshielded Twisted Pair (for each video signal) 24-16 AWG (0.5-1.31mm)    |
|                 | Category Type                           | 2 or better                                                                   |
|                 | Impedance                               | 100 ± 20 ohms                                                                 |
|                 | DC Loop Resistance                      | 52 ohms per 1,000ft (18 ohms per 100m)                                        |
|                 | Differential Capacitance                | 19 pF/ft max (62 pF/m max)                                                    |
| Power           | Adaptive Voltage Arrange                | 12V-40V DC or 9V-24V AC                                                       |
|                 | Power consumption                       | <100mW                                                                        |
| Connector       | Video Input                             | pluggable screw terminal block and RJ45 for UTP ( select one connection)      |
|                 | Video Output                            | Female BNC Connector                                                          |
| Protection      | Surge Protection                        | Built-in Transient Voltage Suppressor(TVS)                                    |
|                 | Ground Isolation                        | YES                                                                           |
|                 | Antistatic                              | YES                                                                           |
| Mechanical      | Dimensions(L*W*H)                       | 190*84*45 mm (BNC connector & mounting bracket excluded)                      |
|                 | Housing                                 | Galvanized                                                                    |
|                 | Body Color                              | black                                                                         |
|                 | Net Weight                              | 660g                                                                          |
| Environmental   | Operating Temperature                   | -10° ~ 70° C                                                                  |
|                 | Relative Humidity                       | 0~95% (non-condensing)                                                        |
|                 | Storage Temperature                     | -20° ~ 85° C                                                                  |

## Application Diagram

Diagram 1 FS-4201SR + FS-4504R

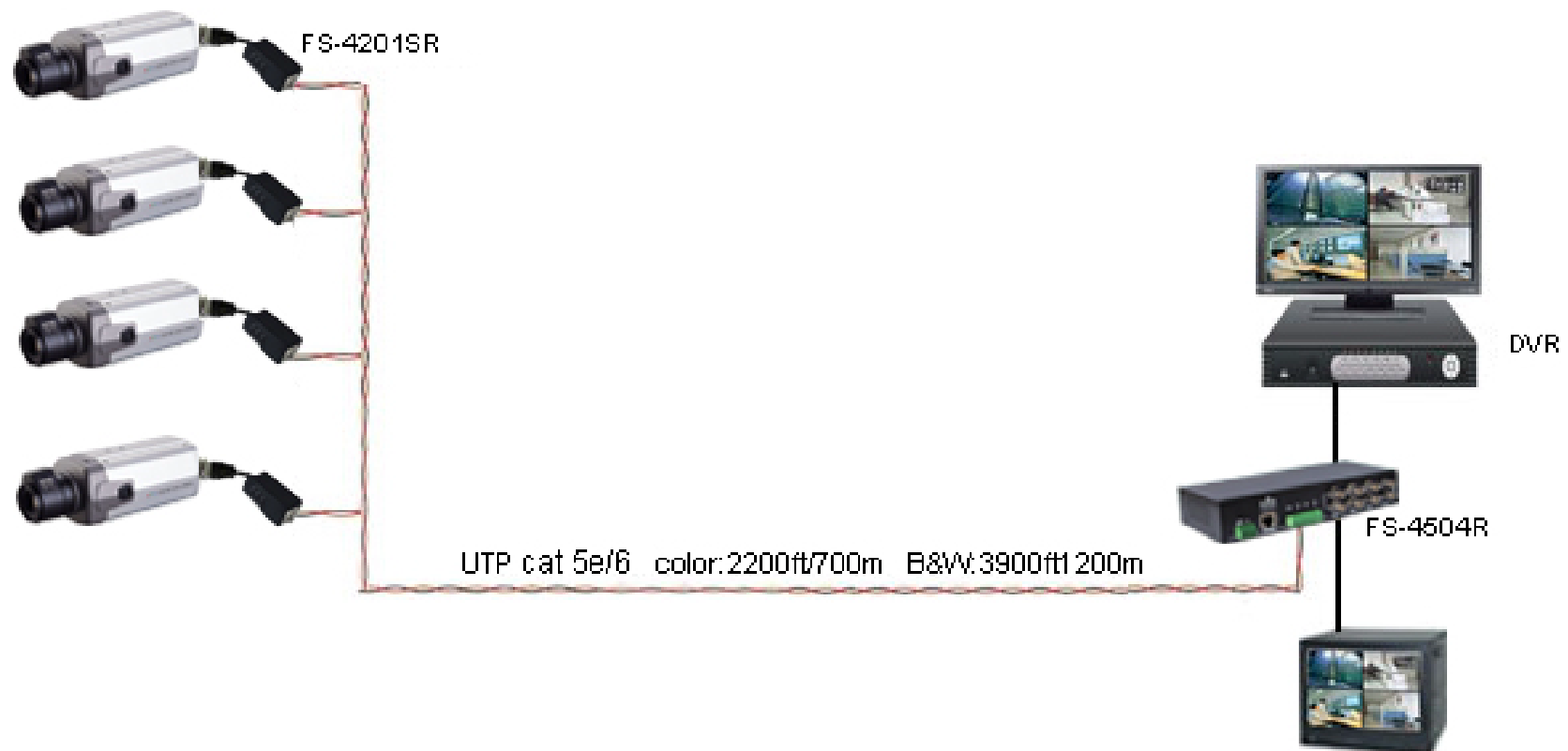


Diagram 2 FS-4401S + FS-4504R

