

CCT641

Features

Single Channel Active Video Receiver

- 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 video distance
- Integrated 2 channel video distribution amplifier allows dual output
- Female BNC connector
- Pluggable screw terminal block or UTP
- 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
- Silver galvanized housing

Overview

The FS-4401R video balun 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-4401R is a compact unit. The power requirement is 12V/24V DC/AC. The pluggable screw terminal block of FS-4401R allows easy connection of UTP cable input. It receives one single 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 transmitter. Its integrated 2 channel video distribution amplifier allows dual output to display video at both monitor and DVR.

The FS-4401R 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-4401R 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-voltages 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-4401R	
Product Name		Single 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 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	Female BNC Connector	
	Video Output	Pluggable screw terminal block for UTP	
Protection	Surge Protection	Built-in Transient Voltage Suppressor(TVS)	
	Ground Isolation	YES	
	Antistatic	YES	
Mechanical	Dimensions (L*W*H)	94.5*64*22 mm (BNC connector & mounting bracket excluded)	
	Housing	Galvanized	
	Body Color	Silver	
	Net Weight	220g	
Environmental	Operating Temperature	-10° ~ 70° C	
	Relative Humidity	0~95% (non-condensing)	
	Storage Temperature	-20° ~ 85° C	

Application Diagram

Diagram 1 FS-4201SR + FS-4401R



Diagram 2 FS-4401S + FS-4401R



Note:

Ground connection for active balun is necessary to avoid device damage