



Connect with Confidence

# ***MultiView*** ***STx*** **Transmitter** Quick Reference & Setup Guide



## **Magenta Research**

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## FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

*This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.*



### EUROPEAN UNION DECLARATION OF CONFORMITY

The manufacturer declares that this product meets the requirements of EU Directive 89/336/EEC.

# 1. Specifications

**Cable Required:** Category 5, 5e, 6 shielded or unshielded twisted pair

**Compliance:** CE; FCC Class A, IC Class/class A

**Video Support:** RGBHV, RGB, Composite, S-Video, Component Video modes

**Maximum Resolution and**

**Refresh Rate:** to 2048x1536 @ 70Hz (receiver dependent)

**Required Source**

**Impedance:** Video OUT: 75 ohms;  
Audio OUT: 600 ohms maximum

**Required Destination**

**Impedance:** Video IN: 75 ohms;  
Audio IN: 600 ohms minimum

**Audio**

**Characteristics:** Channels: Right/Left summed;  
Line Level 600 Ohm Unbalanced

**Connectors:** (1) 3.5-mm, (1) RJ-45, (1) HD15 F

**Temperature**

**Tolerance:** Operating: 32 to 104°F (0 to 40°C);  
Storage: -4 to +140°F (-20 to +60°C)

**Humidity**

**Tolerance:** Up to 80% noncondensing

**Enclosure:** Steel

**Power:** +5 VDC @ 260 mA max  
Consumption: 1.3 watts maximum

**Size:** 1.38 "H x 3.62"W x 4.38"D (3.5 x 9.2 x 11.1 cm)

**Weight:** 0..62 lb. (0.28 kg)

# 2. Introduction

## 2.1 Overview

Magenta's MultiView™ CAT5 Video System MultiView series extends VGA and audio signals over ordinary Category 5 cable.

This manual covers the Magenta MultiView™ STx CAT5 Video System Series Transmitter with Audio.

For information on the respective receiver units, please refer to the appropriate manual included with the receiver.

## WARNING

**This equipment is not intended for, nor does it support, distribution through an Ethernet network. Do not connect these devices to any sort of networking or telecommunications equipment!**

## 2.2 Equipment You May Also Need

- 1/8" (3.5mm) Audio cable.
- Video cable with HD15 connectors.
- CAT5 cable.

## 2.3 Compatible Cabling

Magenta Research products are compatible with Cat5/5e/6 data cabling as well as skew free CAT5/5e cabling manufactured for video applications. Note that some skew free Cat5 is specific to a particular vendor and is not compatible with our products. Please ensure any skew free CAT5 cable is non-proprietary prior to purchase/installation.

CAT6 cable, due to the manufacture method, can exhibit much greater skew than standard CAT5/5e and may require skew compensation beyond what the standard product offers. Please contact Magenta Research for assistance.

CAT5/5e/6 cabling for the Magenta MultiView™ Series must be pinned to the TIA-EIA T568B wiring specification (see appendix A) We also highly recommend that all CAT5 cables be pre-terminated and tested. Cables terminated on-site or in an existing infrastructure should be tested before use to ensure compliance with the TIA-EIA T568B specification. Using incorrectly terminated CAT5 cables can damage the Magenta MultiView™ Series.

## 3. Setup and Installation

### 3.1 Cabling Considerations

- We recommend mounting and connecting all cabling to the MultiView™ Series components before applying power.
- Make sure that the CAT5 cable you intend to use has been tested to comply with the T568B wiring specification (See **Appendix A**).

### 3.2 Making the Connections

#### 3.2.1 CONNECTIONS AND SETUP IN GENERAL

This section contains figures showing connections with the specific MultiView™ Series models. In general, however, the connection and setup procedure at both transmitter and receiver ends is as follows:

*At the transmitter end:*

1. Connect the source video to the MultiView™ Series transmitter video input port, which is an HD15 connector labeled VIDEO INPUT.
2. Make your audio connections via the 1/8" (3.5mm) audio connector.
3. Connect the CAT5 cable to the transmitter.
4. Apply power on the transmitter. The LED should light.

*At the receiver end (refer to the receiver user guide) :*

1. Connect the VIDEO OUTPUT HD15 connector to the display unit.
2. Connect a 1/8" (3.5mm) audio cable to the AUDIO OUTPUT connection.
3. Connect the CAT5 cable to the UTP connection.
4. Apply power. The LED should light and video should appear on the display (make sure display is powered ON).
5. To adjust video levels see appropriate section in receiver user manual.

#### 3.2.2 CONNECTIONS ON THE STx VGA/AUDIO TRANSMITTER

The MultiView STx transmitter supports video and audio signals over CAT5 cable. The audio signal is line-level audio, and powered speakers are required. Figure 3-1 shows the MultiView™ Series STx transmitter connections, and Figure 3-2 shows a typical MultiView™ receiver connections.

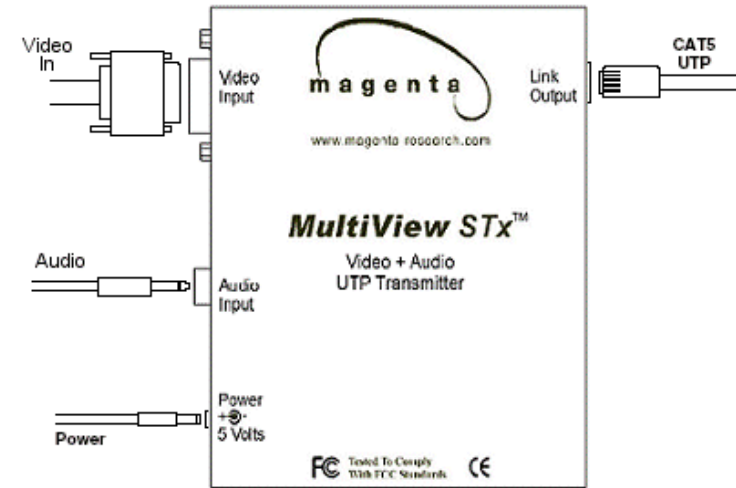


Figure 3-1. Transmitter connections on the STx Transmitter.

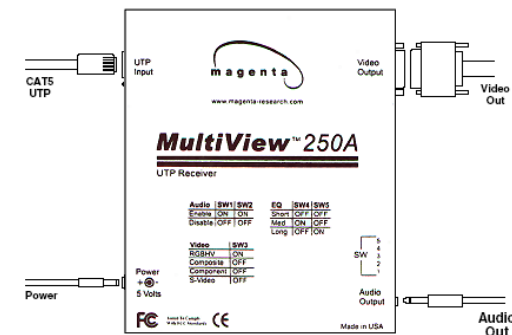


Figure 3-2. Typical Receiver connections.

### 3.2.3 A TYPICAL SINGLE-PORT TRANSMITTER–RECEIVER APPLICATION

Figure 3-3 shows a typical application in which the STx transmitter is connected over CAT5 to a receiver.

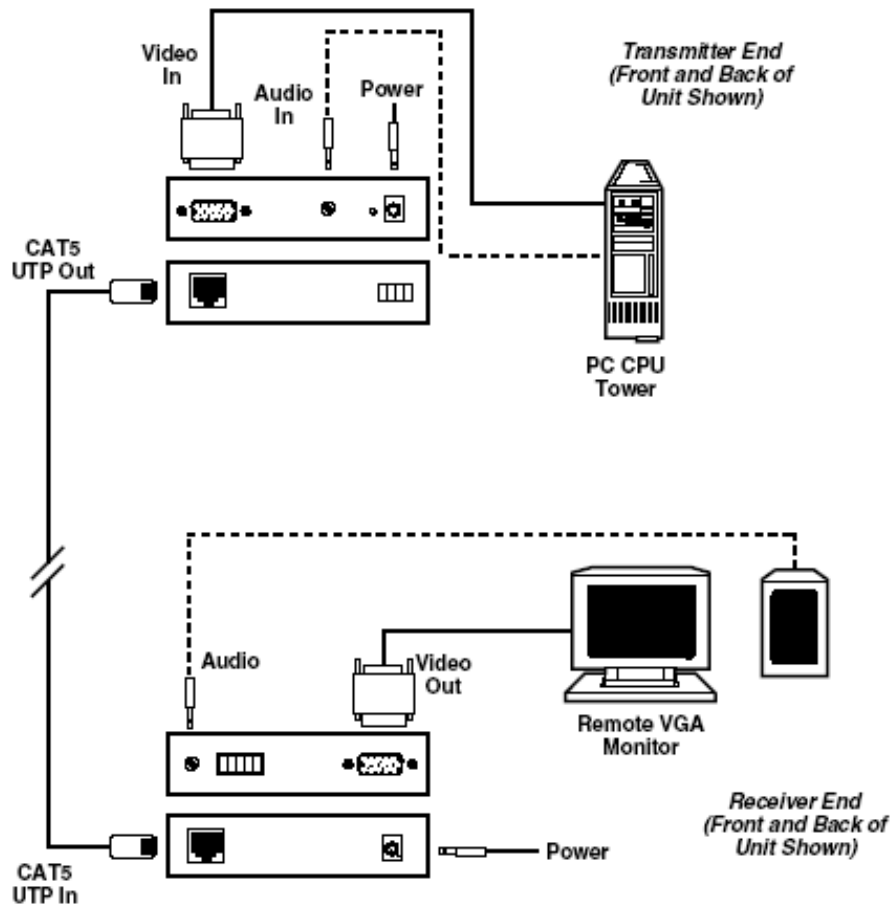


Figure 3-3. Transmitter to Receiver connections.

## 4. Troubleshooting

### 4.1 Common Problems

#### *THERE ARE NO USER CONFIGURABLE SETTINGS ON THE STx TRANSMITTER*

In most cases, nearly every issue with the MultiView™ Series can be resolved by checking the CAT5 termination and making sure that it's pinned to the 568B wiring specification. However, there may be other problems that cause the system to not perform as it's designed. Below are solutions to the most common installation errors.

**Problem:** No video signal at the receiver.

**Solution:**

- Check that both units are powered.
- **Ensure Cable Length Compensation adjustments are set correctly on the receiver.**
- Make sure the CAT5 cable is terminated correctly per the 568B wiring specification.
- Is the display device powered on and functioning?

**Problem:** Poor video quality.

**Solution:**

- Have all receiver adjustments been finished ?
- Check all cable connections.
- **Ensure Cable Length Compensation adjustments are set correctly on the receiver.**
- The video signal's refresh rate may be set too high for the display. Reset to a lower refresh rate in your monitor-configuration menu.

**Problem:** Poor audio quality.

**Solution:**

- Powered speakers are required. Make sure speaker power is ON.
- Check input source levels from the source device. Make sure the audio source is not overdriven or underdriven.

**Problem:** "Green shift" or "green washout" on multimedia signals.

**Solution:** The standard video model is designed to function with DC coupled signals in which the black level is referenced to 0 volts. Nearly all VGA cards function this way. Some media servers and inexpensive VGA DA's, however, provide AC coupled signals and can cause a green color shift in the video. This is a result of the sync clamping on the red and blue channels of the transmitter/receiver units. For five-component (RGB/H&V) AC coupled video, the MultiView™ Series **UTx Universal Transmitter** unit has been designed with full DC restoration capability. The STx may need to be replaced with a MultiView UTx Universal transmitter to resolve this.

# Appendix A. Cabling Pinouts

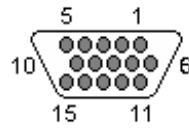


Table A-1. HD15 video connector.

Pin	RGBHV (VGA)	RGBS	RGsB	Com- posite	SVHS (Y/C)	YUV	Composite Video & Stereo Audio
1	Red +	Red +	Red +		C+	V+	Audio Left
2	Green+	Green+	Green+	C+	Y+	Y+	C+
3	Blue+	Blue+	Blue+			U+	Audio Left
4	—	—	—				
5	Gnd	Gnd	Gnd				
6	Red-	Red-	Red-		C-	V-	Shield
7	Green-	Green-	Green-	C-	Y-	Y-	C-
8	Blue-	Blue-	Blue-			U-	Shield
9	—	—	—				
10	Gnd	Gnd	—				
11	Gnd	Gnd	—				
12	—	—	—				
13	H Sync	C Sync	—				
14	V Sync	—	—				
15	Gnd	Gnd	—				

# Appendix A. Cabling Pinouts

Table A-2. T568B CAT5 pinout

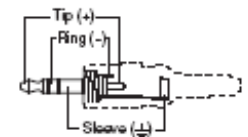
## T568B CAT5 Specification

Pin	Color	Pair
1	Orange/White	2
2	Orange	2
3	Green/White	3
4	Blue	1
5	Blue/White	1
6	Green	3
7	Brown/White	4
8	Brown	4

Cabling must be the same on both ends  
Use for Cat5/5e/6

Table A-3. 1/8" (3.5 mm) Audio Connection

Pin	Channel 1	Channel 2
Tip	+	
Ring		+
Sleeve	-	-



**Note:** The stereo audio input at the transmitter is summed and output as mono audio on both channels at the receiver.