



# YUV Video Extender

## Quick Reference & Setup Guide



# Contents

Chapter	Page
1. Specifications.....	2
2. Introduction .....	3
2.1 Overview.....	3
2.2 Equipment You May Also Need.....	3
2.3 Compatible Cabling .....	3
3. Setup and Installation.....	4
3.1 Making the Connections.....	5
3.1.1 Connections and Setup in General .....	5
3.1.2 Connections on the Extender.....	5
4. Troubleshooting.....	6
4.1 Common Problems .....	6
Appendix A. Cabling Pinouts.....	6

© 2009 by Magenta Research. All rights reserved.

Magenta Research  
128 Litchfield Rd  
New Milford, CT. 06776 USA

This document and the Magenta Research products to which it relates, and the copyright in each, is the property of Magenta Research. Neither the document nor the products may be reproduced by any means, in whole or in part, without the prior written permission of Magenta Research. Magenta Research makes no warranty or representation, either expressed or implied, with respect to this software or documentation, including the quality, performance, merchantability, or fitness for a particular purpose. As a result, this software or documentation are licensed "as is" and you, the licensee, are assuming the entire risk as to the quality and performance.

In no event will Magenta Research be liable for direct, indirect, special, incidental, or consequential damages arising out of the use of or inability to use the software or documentation.

*Cyan and the Cyan logo are trademarks of Magenta Research.  
All other brands, product names, and trademarks are the property of their respective owners*

# 1. Specifications

<b>Cable Required:</b>	Category 5, 5e, 6 twisted pair (UTP)
<b>Maximum Distance:</b>	328 ft (100m)
<b>Video Support:</b>	YPbPr, YUV, HDTV
<b>Video Resolution:</b>	Up to 1080P
<b>Connectors:</b>	Tx: (3) RCA , (1) RJ-45, (1) power Rx: (3) RCA , (1) RJ-45
<b>Temperature Tolerance:</b>	Operating: 32 to 104°F (0 to 40°C); Storage: -4 to +140°F (-20 to +60°C)
<b>Humidity Tolerance:</b>	Up to 80% noncondensing
<b>Enclosure:</b>	Metal
<b>Size:</b>	0.94"H x 2.6"W x 2.9"D (2.4 x 6.6 x 7.4 cm) each unit (mounting tab not included in above dimensions)
<b>Weight:</b>	0.4 lb. (0.18 kg) - each unit
<b>Power:</b>	9 VDC/ 300mA (transmitter) Receiver powered by transmitter
<b>Compliance:</b>	RoHS, CE; FCC Class A

## 2. Introduction

### 2.1 Overview

The Cyan YUV Video extenders extend component video signals over Category 5/5e/6 cable.

### **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

- RCA video cables

### 2.3 Compatible Cabling

Cyan extender products are compatible with Cat5/5e/6 data cabling.

CAT5/5e/6 cabling for the Cyan extender must be pinned to the TIA-EIA T568B wiring specification (see appendix A). We also highly recommend that all CAT5/5e/6 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 CAT5/5e/6 cables can damage the units.

## 3. Setup and Installation

### 3.1 Making the Connections

#### 3.1.1 CONNECTIONS AND SETUP IN GENERAL

This section contains figures showing connections with the specific Cyan Extenders. In general the connection and setup procedure at both transmitter and receiver ends is as follows:

*At the sender end:*

1. Connect the source video to the Cyan Extender Y, Pb, Pr video input ports.
2. Connect the CAT5/5e/6 cables to the sender.
3. Connect power supply

*At the receiver end :*

1. Connect the display to the Cyan Extender Y, Pb, Pr video output ports.
2. Connect the CAT5/5e/6 cables to the UTP connection.

#### 3.1.2 CONNECTIONS ON THE CYAN VIDEO EXTENDER:

Figure 3-1 shows the Cyan transmitter connections and Figure 3-2 shows the receiver connections.

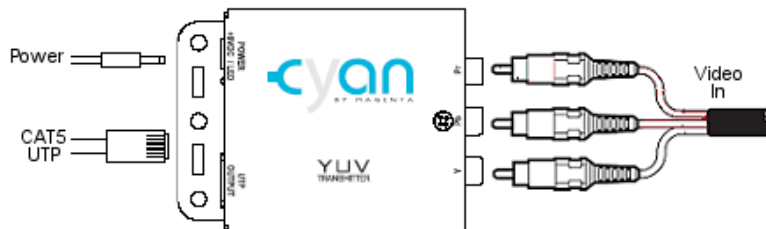


Figure 3-1. Connections on the Cyan YUV Video Extender Transmitter

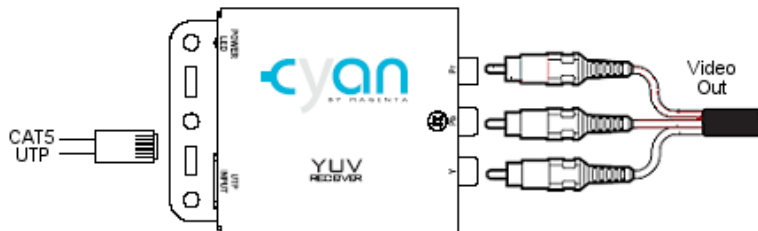


Figure 3-2. Connections on the Cyan YUV Video Extender Receiver

## 4. Troubleshooting

### 4.1 Common Problems

In most cases, nearly every issue with the Cyan Extenders can be resolved by checking the CAT5/5e/6 termination and making sure that it's pinned to the T568B 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. Note that the receiver is powered via the transmitter over the cat5 cable. The power is on pair 4, pins 7,8. Ensure this pair is terminated correctly (see Appendix A).
- 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:**

- Check all cable connections.

Appendix A. Cabling Pinouts

T568B CAT5 Specification

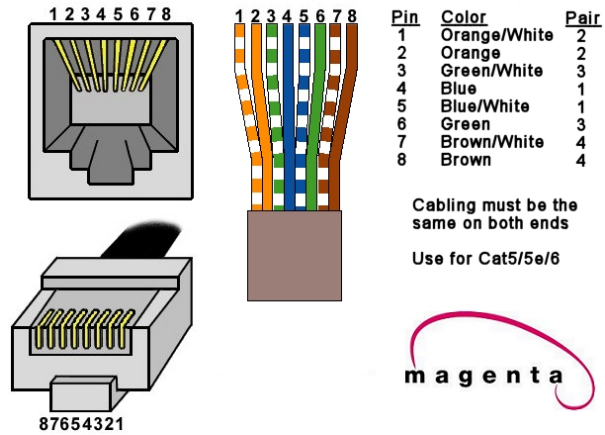


Table A-1. T568B CAT5 pinout



**Magenta Research**

128 Litchfield Road, New Milford, CT 06776 USA  
(860) 210-0546 FAX (860) 210-1758  
[www.magenta-research.com](http://www.magenta-research.com)

PN: 5310226-01, Rev 01, 2/09

