

Specifications

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| Environment | Component Video (YPbPr), RGB Video (sync on green). 480i/p, 720p, 1080i/p. |
| Devices | DVD players, satellite receivers, plasma displays, projectors, monitors, up-converters, amplifiers, switchers, home theatre and other equipment supporting HDTV component video and/or digital audio (Dolby Digital™, dts™). |
| Transmission | Transparent to the user. |
| Bandwidth | Video: 60 MHz, 3 dB roll off. Digital audio: 25 MHz, 1dB roll off |
| Maximum Input | 1.1Vp-p |
| Insertion Loss per pair (video) | .1 dB for 0.1 MHz. Gradually increasing to 3 dB over the frequency range |
| Insertion Loss per pair (audio) | Less than 1 dB over the frequency range |
| Return Loss (video) | Greater than 15 dB over the frequency range |
| Return Loss (audio) | Greater than 15 dB over the frequency range |
| Common Mode Rejection (video) | -55 dB max. |
| Common Mode Rejection (audio) | -55 dB max. |
| Max. Distance Colour – Cat 5 UTP & STP | 480i/p: 1,000 ft (305m). 720p and 1080i: 500 ft (152m). Digital Audio: 600 ft (182m). Compatible with 500020. |
| Cable – Cat5 UTP/STP | 24 gauge or lower solid copper twisted pair wire impedance: 100 ohms at 1 MHz. Maximum capacitance: 20 pf/foot. Attenuation: 6.6 dB/1000 ft at 1 MHz |
| Cable – Coax | Impedance: 75 ohms at 1 MHz |
| Connectors | Three (3) RCA-M connectors: Green (Y), Blue (Pb), Red (Pr) One (1) RCA-F connector for digital audio RJ45S for twisted pair |
| Pin Configuration <i>Reverse polarity sensitive</i> | Red (Pr): Pins 7 [R] & 8 [T] Green (Y): Pins 3 [R] & 6 [T] Blue (Pb): Pins 1 [R] & 2 [T] Digital Audio: Pins 4 [R] & 5 [T] |
| Temperature | Operating: 0° to 55°C. Storage: -20° to 85°C. Humidity: up to 95% |
| Enclosure | ABS fire retardant plastic |
| Dimensions | 2.40" x 2.25" x 1.0" (6.1 x 5.7 x 2.54 cm) plus 6" (15.24cm) cable lead for video. |
| Weight | 2.9 oz (81gms) |
| Regulatory | FCC, CE. |
| Warranty | Lifetime |
| Order Information | 500050 VideoEase Component Video/Digital Audio Balun |

MuxLab

5450 Cote de Liesse, Montreal
Quebec, Canada, H4P 1A5

Tel.: (514) 905-0588 Fax: (514) 905-0589
Toll Free (North America): (877) 689-5228
E-mail: videoease@muxlab.com
URL: www.muxlab.com

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Component Video/Digital Audio Balun (500050) Installation Guide

Introduction

The VideoEase Component Video/Digital Audio Balun (500050) allows one component video (YPbPr or RGB) signal and one Digital Audio signal to be transmitted via cost-effective unshielded twisted pair (UTP) cable.

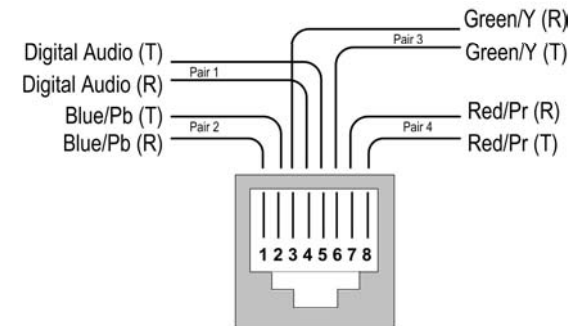
Used in pairs, the Component-Digital Balun supports 480i/p, 720p and 1080i/p resolution for hi-definition (HDTV) video applications.

The product allows four coaxial cables to be replaced by one Category 5 twisted pair cable allowing standard structured cabling techniques to be used for more efficient cabling.

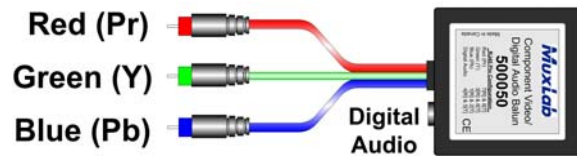
Installation

One (1) pair of baluns are needed to complete one component (YPbPr/RGB) connection via Cat5 twisted pair. To install the baluns, perform the following steps:

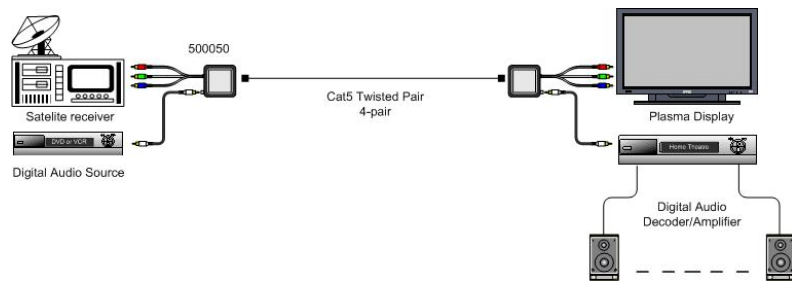
1. Identify the pin configuration of the baluns. Three (3) twisted pairs are required for video and one (1) twisted pair is required for optional digital audio. The pin configuration follows the EIA/TIA 568A/B standard. The Component Video/Digital Audio Balun is reverse polarity sensitive. Please ensure that wiring is straight-through (Ring to Ring, Tip to Tip).



- Plug one (1) balun into the component video coaxial cable output of the video source according to the color code of the RCA cable leads.



- Plug the second balun into the component video coaxial cable input of the video screen or receiver at the remote end.
- Complete the connection between the two baluns, using standard Cat5 twisted pair cable and connecting hardware, terminated on RJ45 plugs at both ends. Ensure that there are no split pairs or taps.
- If Digital Audio is to be connected (optional), connect an RCA lead between the balun and the digital audio equipment at both ends.
- Power-on the component video equipment. Check the image quality and refer to the troubleshooting table below if the image quality is unsatisfactory. The following diagram shows a typical installation.



Troubleshooting

The following tables describe some of the symptoms, probable causes and possible solutions in respect to the installation of the Component-Digital Balun. If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).

| Video | | |
|-------------------------------|--|--|
| Symptom | Probable Causes | Possible Solutions |
| No video | No continuity in video link | Verify cable continuity between pairs of baluns. |
| No video | Power off | Check power supplies of video equipment. |
| No video | Improper connection Swapped pairs | Check that baluns are connected to correct video inputs and outputs. |
| Unusual colors | Reversed polarity | Check wiring and ensure straight-through polarity |
| Background pattern | EMI interference | Identify possible radiating frequency sources (ie; wireless LANs, switching power supplies) Try to isolate them from the video connection. Use shielded twisted pair grounded at both ends. |
| Smearing | Exceeded distance | Verify cable grade. Use higher grade cable if necessary. |
| Weak contrast | Exceeded distance | Verify cable grade. Use higher grade cable if necessary. Increase contrast on monitor. |
| Weak contrast | Unusual link attenuation | Verify cable distance using ohmmeter or cable tester. |
| Image not stable | Defective link or equipment | Verify video equipment interface integrity. |
| Horizontal bars moving slowly | Substantial crosstalk between multiple video sources | Consecutively turn off other video sources to determine which video source is the cause of interference. |
| Snowy picture | Distance is near limit | Verify cable grade. Use higher grade cable if necessary. Reduce color intensity at monitor. |

| Digital Audio | | |
|------------------|---|---|
| Symptom | Probable Causes | Possible Solutions |
| No audio | Distance exceeded | Verify cable length between the two baluns. |
| No audio | Split pair | Check if the UTP pairs are split and correct. Each signal pair must be twisted. |
| No audio | Power-off. | Check power supplies of digital audio equipment. |
| Missing channels | Cabling problem between the decoder/amp and the audio speakers. | Check audio speaker cabling. |
| Noise, static | EMI interference. | Check that wiring is not too close to transformers and ballasts. |
| Noise, static | Distance exceeded or unusual cable attenuation | Check cable distance and cable grade. |