

Specifications

Environment	Component (YPbPr) video. Composite video.
Devices	DVD, VCR, TV, satellite receivers, monitors, switchers, home theatre and other equipment supporting component video.
Transmission	Transparent to the user.
Bandwidth	Video: DC to 8 MHz.
Maximum Input	1.1Vp-p
Insertion Loss	Less than 2 dB per pair over the frequency range from DC to 8 MHz
Return Loss	Greater than 15 dB over the frequency range from DC to 8 MHz
Common Mode Rejection	Greater than 40 dB @ 8 MHz
Max. Distance Color – Cat 5 UTP	Component (YPbPr): 1,000 ft (305m). Composite: 2200 ft (670m)
Cable – UTP	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 – BNC	Impedance: 75 ohms at 1 MHz
Connectors	One (1) gold-plated RCA connector
Reverse polarity sensitive	Two (2) screw terminals for twisted pair
Impedance	Input: 75 ohms unbalanced (RCA connector) Output: 100 ohms balanced UTP (screw terminals)
Temperature	Operating: 0° to 55°C. Storage: -20° to 85°C. Humidity: up to 95%
Enclosure	ABS fire retardant plastic
Dimensions	1.25" x 0.5" x 0.5" (3.2 x 1.3 x 1.3 cm)
Weight	1.5 oz (42.5gm)
Warranty	Lifetime
Order Information	500021 VideoEase Component Video Balun

MuxLab

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

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

94-000334-A

SE-000311-A



VideoEase Component Video Balun (500021) Installation Guide

Introduction

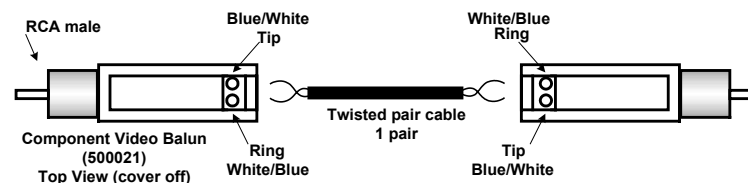
The VideoEase Component Video Balun allows a single component video signal (Y, Pb, or Pr) to be transmitted via cost-effective unshielded twisted pair (UTP) cable. Three (3) balun pairs are required for one point-to-point component (YPbPr) video connection. The product allows three coaxial cables to be replaced by one Category 5 twisted pair cable allowing standard structured cabling techniques to be used for neater and more streamlined cabling. The Component Video Balun is compact enough to allow three (3) units to be connected side by side on the back of the component video equipment.

Installation

Component Video (YPbPr) Connection:

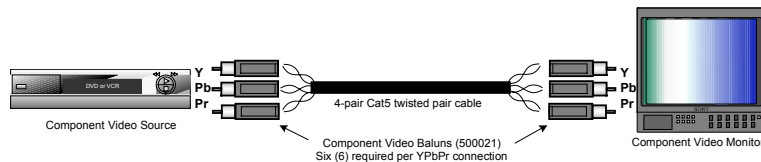
Three (3) pairs of Component Video Baluns (six baluns) are needed to complete one component (YPbPr) connection via Cat5 twisted pair. To install the VideoEase Component Video Baluns, perform the following steps:

1. Identify the pin configuration of the baluns. One twisted pair is required. The Component Video Balun is reverse polarity sensitive. Please ensure that wiring is straight-through (Ring to Ring, Tip to Tip)



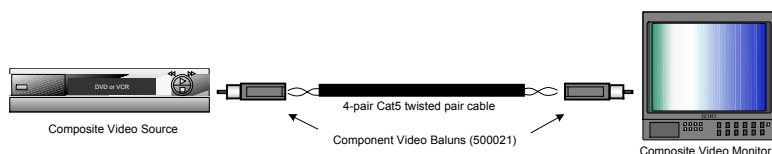
2. The Component Video Balun works in pairs. For each component signal (Y or Pb or Pr), plug one balun into the component video output (coaxial) of the video source.

- Plug a second balun into the each of the component video inputs (coaxial) of the video monitor or receiver at the remote end.
- Complete the connection between the two baluns, using standard twisted pair cabling techniques as shown below. Each balun must be connected to its corresponding component video balun at the other end. For example, the component video balun for the “Y” component at the output must be connected to the component video balun for the “Y” component at the other end.
- 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.



Composite Video (NTSC,PAL,SECAM) Connection:

One (1) pair of Component Video Baluns (two baluns) are needed to complete one composite video connection via Cat5 twisted pair. To install the VideoEase Component Video Baluns, perform the same steps as listed above by connecting the Component Video Baluns to the composite video input/output connectors of the equipment. The following diagram shows a typical installation.



Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in respect to the installation of the Component Video Balun. If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in N.Am) or 514-905-0588 (Intl).

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 least on one end.
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.