

Specifications

Environment	S-Video equipment
Devices	DVD players, VCR, satellite receivers, MPEG players, laptops, notebooks, monitors, LCD projectors, CCD cameras, video switchers, sequencers, digital video servers, video multiplexers, S-Video splitters, S-Video converters and other S-Video equipment.
Transmission	Transparent to the user
Bandwidth	DC to 6 MHz
Impedance	75 ohms
Maximum Input	1.1 Vp-p
Insertion Loss	Less than 2 dB per pair over the frequency range from DC to 6 MHz
Return Loss	Better than 15 dB over the frequency range
Common Mode Rejection Ratio (CMRR)	Greater than 40 dB over the frequency range
Max. Distance via Cat 5E/6 UTP/STP Cable	1,000 ft (305 m)
Pin Configuration (RJ45) <i>EIA 568 A or B</i>	S-Video Luma1: Pins 1(R) & 2(T) S-Video Chroma1: Pins 3(R) & 6(T) S-Video Luma2: Pins 7(R) & 8(T) S-Video Chroma2: Pins 4(R) & 5(T) <i>Reverse Polarity Sensitive</i>
Cable: Cat 5E/6 UTP/STP	24 AWG or lower solid copper twisted pair wire Impedance: 100 ohms at 1 MHz Maximum capacitance: 20 pf/ft Attenuation: 6.6 dB/1,000 ft at 1 MHz
Connectors	Two (2) 4-pin Mini DIN jacks for S-Video One (1) RJ45 for Cat 5E/6 UTP cable
Temperature	Operating: 0° to 55°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing
Enclosure	Fire retardant plastic, UL94-V0
Dimensions	2.40" x 2.25" x 1.00" (6.10 x 5.72 x 2.54 cm)
Weight	1.8 oz (51 g)
Warranty	Lifetime
Order Information	500013 Dual S-Video Balun



Dual S-Video Balun 500013

Quick Installation Guide

Overview

The Dual S-Video Balun allows up to two (2) S-Video signals to be transmitted via an unshielded twisted pair (UTP) cable up to 1,000 ft (305 m) in a point-to-point connection. The Dual S-Video Balun fully utilizes the Cat 5E/6 cable and works in conjunction with MuxLab rack, wall and surface mounting accessories for more cost efficient cabling.



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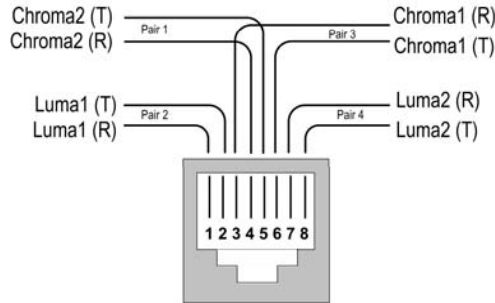
Toll Free (North America): (877) 689-5228

E-mail: videoease@muxlab.com URL: www.muxlab.com

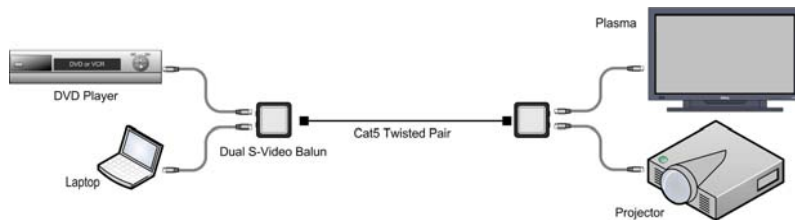
Installation

One (1) pair of baluns is needed to complete one dual S-Video connection via Cat 5E/6 twisted pair. To install the baluns, perform the following steps:

1. Identify the pin configuration of the baluns. Four (4) twisted pairs are required; one (1) pair for each S-Video channel. The pin configuration follows the EIA/TIA 568A/B standard. The Dual S-Video Balun is reverse polarity sensitive. Please ensure that wiring is straight-through (Ring to Ring, Tip to Tip).



2. Connect one (1) balun to the S-Video outputs of the video source using S-Video jumper cables (not included).
3. Connect a second Dual S-Video Balun to the S-Video inputs at video screen or receiver at the remote end using S-Video jumper cables (not included).
4. Complete the connection between the two baluns, using standard Cat 5E/6 twisted pair cable and connecting hardware, terminated on RJ45 plugs at both ends. Ensure that there are no split pairs or taps.
5. Power-on the audio-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 table describes some of the symptoms, probable causes and possible solutions in respect to the installation of the Dual S-Video Balun:

Video Symptom	Probable Cause	Possible Solutions
No video	No continuity in video link	Verify cable continuity between pairs of baluns.
	Power off	Check power supplies of video equipment.
	Improper connection and/or swapped pair	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 (<i>i.e.</i> , 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.
	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.

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).