Specifications

Environment	Line level unbalanced analogue audio
Devices	DVD, VCR, camcorders, audio mixers, audio matrix switchers, audio splitters, audio distribution amplifiers, boosters, satellite receivers, MPEG players, laptops, stereo audio amplifiers, audio switchers, integrated TV monitors and other line level audio equipment
Transmission	Transparent to the user.
Bandwidth (3dB point) (400 O source & 50 kO receiver)	Up to 1,000 ft (305m): 60Hz - 20 kHz 1,000 ft (305m) to 5,000 ft (1.5 km): 100Hz - 20 kHz
Maximum Input Level	1.1Vp-p
Insertion Loss per Balun Pair	Less than 1 dB per pair over the frequency range
Common Mode Rejection (CMMR)	Greater than 60 dB @ 1 kHz
Audio Source Impedance	Less than 600 ohms
Audio Receiver Impedance	10 k ohms or greater
Impedance Transformation Ratio	Single unit: 4:1 (source: line)
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
Max. Distance – Cat 5 UTP	5,000 ft (1,525m)
Connectors	Two (2) RCA-M 6” cable leads One (1) RJ45
Pin Configuration (RJ45)	Audio 1 (White): pins 1[R] & 2 [T] Audio 2 (Red): pins 3 [R] & 6 [T]
Temperature	Operating: 0º to 55º C. Storage:-20º to 85º C. Humidity: up to 95%
Enclosure	ABS. Fire retardant plastic
Dimensions	1.875” x 1.0” diameter plus 6” audio lead
Weight	1.0 oz (28 gms).
Warranty	Lifetime
Order Information	500027 Stereo Audio Balun

MuxLab

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94-000555-A SE-000583-A

Stereo Audio Balun (500027)

Quick Installation Guide

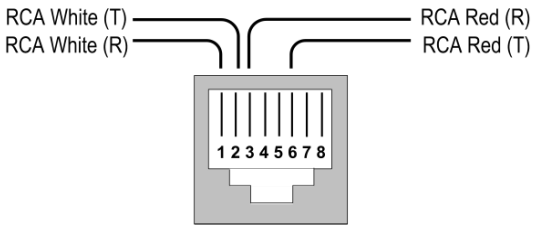
Introduction

The VideoEase Stereo Audio Balun (500027) allows unbalanced line level stereo audio to be transmitted up to 5,000 ft (1.5km) via unshielded copper twisted pair (UTP) in a point-to-point connection. The product is designed for mid-range audio applications. Used in pairs, the Stereo Audio Balun eliminates costly and bulky audio cable, allowing audio equipment to be connected or moved within a structured cabling environment. The 500027 also works in conjunction with other MuxLab audio-video products including the 500200, 500012, 500001 and 500019 for a more complete cabling solution. Applications include; audio distribution, custom residential systems and intercom systems.

Installation

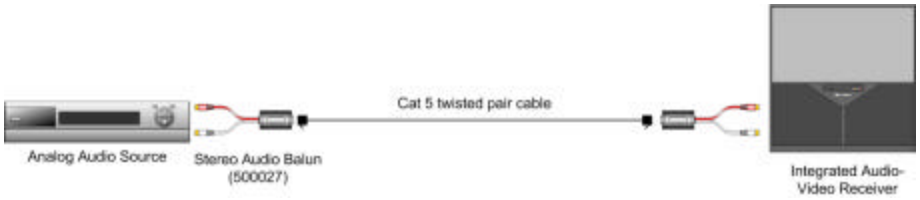
To install the Stereo Audio Baluns, perform the following steps:

1. One pair of Stereo Audio Baluns is required for each stereo channel.
2. Identify the pin configuration of the baluns. Two (2) twisted pairs are required as shown in the following diagram.



Note: The Stereo Audio Balun is phase polarity sensitive. Therefore, in order to achieve full stereo audio quality, please ensure that the wiring is straight-through and according to EIA568 (A or B) standard.

3. Verify the colors of the RCA plugs and connect one (1) Stereo Audio Balun to the left-audio and right-audio RCA connectors of the audio source.
4. Verify the colors of the RCA plugs and connect a second Stereo Audio Balun to the left-audio and right-audio RCA connectors of the audio receiver at the remote end.
5. Complete the connection between the two (2) baluns, using standard UTP cable, connector blocks and appropriate modular RJ45 outlets.
6. Power-on the audio equipment and check the audio quality. The audio should be clear within the maximum specified distances. The following diagram shows a typical configuration.



Troubleshooting

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

Symptom	Probable Causes	Possible Solutions
Poor audio quality	EMI interference.	Check that wiring is not too close to transformers and ballasts.
	Split pair	Ensure that the UTP pairs are not split and that each pair of wires is twisted.
No audio	No power	Check your audio system for power.
	Open circuit	Check wiring to ensure continuity
	Defective balun	Change Stereo Audio Baluns for another pair.
Audio phase cancellation	Reversed wires	Check for straight-through wiring.
Audio weak	Distance specifications exceeded	Check DC loop resistance and verify if distance spec is exceeded. Reduce cable length or eliminate high-loss components.