

### Overview

The Quad Audio Balun allows up to four (4) analog line audio signals to be transmitted via unshielded twisted pair (UTP) cable in a point-to-point connection.

Used in pairs, the Quad Audio Balun allows up to four (4) coax audio cables to be replaced by one (1) Cat5e/6 cable. The Quad Audio Balun also works in conjunction with other MuxLab analog audio baluns such as the 500019.

### Applications

Custom commercial and home audio systems, intercom systems, rental and staging systems, audio-video conferencing systems.



### Features & Benefits

Cost-efficient cabling – save up to four (4) cables  
20 Hz to 20 KHz bandwidth for high fidelity  
Analog audio up to 3,250 ft (1.0 km) via Cat5e/6  
Compact design for neater wiring

| Specifications                     |                                                                                                                                                          |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment                        | Unbalanced line-level analog audio.                                                                                                                      |
| Devices                            | DVD players, audio receivers, audio amplifiers and audio mixers, audio matrix switchers and other unbalanced line-level audio equipment.                 |
| Transmission                       | Transparent to the user                                                                                                                                  |
| Bandwidth                          | 20 Hz to 20 kHz                                                                                                                                          |
| Peripherals' Impedance             | Source 100 $\Omega$ Mx, Receiver 10 k $\Omega$ min.                                                                                                      |
| Insertion Loss                     | Less than 2 dB per pair over the frequency range                                                                                                         |
| Common Mode Rejection Ratio        | Greater than 60 dB at 1 kHz                                                                                                                              |
| THD                                | Less than 0.007% @ 1 kHz                                                                                                                                 |
| Maximum Input Level                | 1.1 Vp-p                                                                                                                                                 |
| Impedance Transformation Ratio     | Single unit: 4:1 (source: line)                                                                                                                          |
| Cable: Cat 5E UTP/STP              | 24 AWG or lower solid copper twisted pair wire<br>Impedance: 100 ohms at 1 MHz<br>Maximum capacitance: 20 pf/ft<br>Attenuation: 6.6 dB/1,000 ft at 1 MHz |
| Unbalanced In/ Out Cable           | Shielded, coaxial                                                                                                                                        |
| Ground Loop Isolation              | Range of +/-50VDC                                                                                                                                        |
| Connectors                         | Four (4) RCA receptacles for audio, one (1) RJ45 jack                                                                                                    |
| Pin Configuration                  | Audio 1: Pins 7(R) & 8(T)<br>Audio 2: Pins 3(R) & 6(T)<br>Audio 3: Pins 4(R) & 5(T)<br>Audio 4: Pins 1(R) & 2(T)                                         |
| Max. Distance:<br>Cat 5E/6 UTP/STP | 3250 ft (1 km)                                                                                                                                           |
| Temperature                        | Operating: 0° to 55°C<br>Storage: -20° to 85°C<br>Humidity: Up to 95% non-condensing                                                                     |
| Enclosure                          | Fire retardant plastic                                                                                                                                   |
| Weight                             | 3.6 oz (103 g)                                                                                                                                           |
| Dimensions                         | 2.40" x 2.25" x 1.00" (6.10 x 5.72 x 2.54 cm)                                                                                                            |
| Warranty                           | Lifetime                                                                                                                                                 |
| Order Information                  | 500033 Quad Audio Balun (Rev B)                                                                                                                          |

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**Typical Application**

