MCM CUSTOM AUDIO

A/V to Cat5 Balun System

Overview

This balun system allows installers to take advantage of Cat5 (or higher) cable for interconnecting A/V components over long distances. Common signal formats such as composite video, RGB component video and line level audio can easily be sent over UTP cable for considerable distances. This is useful in retrofit applications as it takes advantage of unused pairs of Cat5 data cable already in place. In new construction, take advantage of the smaller size and lower cost of Cat5 cable when distributing signals throughout the structure. Each balun features a specially designed tooless IDC connector, for easy

connection of unterminated Cat5/5e and Cat6 cable. Because these will install in standard Keystone type wall plates, easy configuration may be made to each specific application. Completely passive design, these baluns require no power.
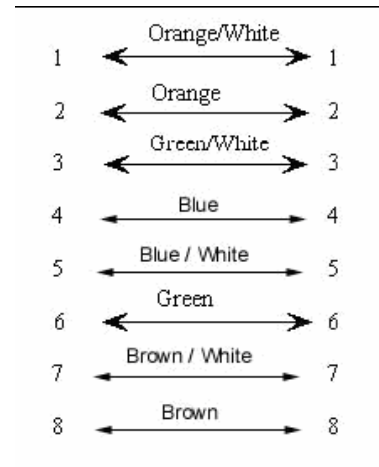
Important Note:
Sold individually, these baluns must be used in pairs. Keystone mount baluns are compatible with other MCM Custom Audio baluns. See www.mcminone.com for a complete listing of available models.

The following information applies to MCM balun models:

50-7715
50-7716
50-7755
50-7760
50-7761
50-7765
50-7766
50-7767

Wiring

The diagram to the right illustrates the wiring layout of standard RJ45 connectors in Network applications. Note that pairs exist between pin #4/5, #3/6, #1/2 and #7/8. When looking at an RJ45 connector from the bottom, with the spring tab facing down, pin #1 will appear on the left.

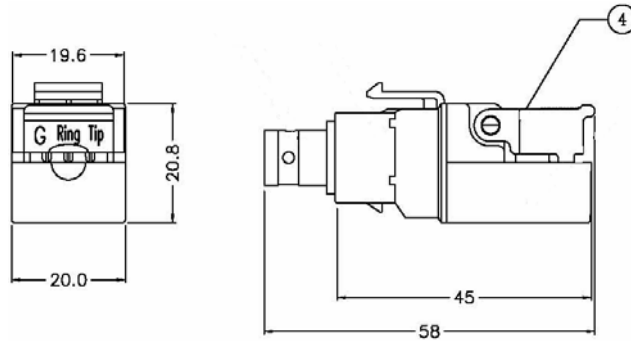|		
1	← Orange/White →	1
2	← Orange →	2
3	← Green/White →	3
4	← Blue →	4
5	← Blue / White →	5
6	← Green →	6
7	← Brown / White →	7
8	← Brown →	8

Distance

Actual usable maximum distance between these baluns will vary on a number of factors including strength of signal, quality of terminations and local sources of interference. In most cases, distances up to 400′ can easily be obtained. In optimum situations, distances of over 1000′ are attainable. Also, 400′ rating is based on use of Cat5 cable. Distances will increase with Cat5e, Cat6 or higher rated cable.

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Connections

Connections are made by simply lifting the plastic tab (4) and exposing the insulation displacement connector. Individual Cat5 conductors should be placed in the ring and tip slots of this connector. After lying the conductors in the slots, simply snap the plastic tab (4) back into place. This IDC connector is designed to pierce the insulation, **DO NOT** remove insulation from the end of the conductors.

Conductors should be installed prior to installing baluns into Keystone wall plates. Once baluns are installed into the plates, the plastic tab may not be accessible.

Important Note

When installing a balun at each end of a cable run, it is important to be consistent on each end, with respect to which conductor is tip and which is ring.

It is strongly recommended to follow the wiring arrangement listed below. This will ensure consistency throughout all installations, and allow compatibility with other MCM baluns that use terminated RJ-45 cables.

Using With Other MCM Custom Audio Baluns

These baluns may be used with the following MCM baluns. Specific information on these baluns may be found at www.mcminone.com by searching under the model number. These units have multiple baluns in a single housing, and utilize an RJ45 female connection. Following is information on Cat5 cable pair assignment for each connection.

MCM Model #	Description
50-7720	**Y/Pb/Pr Component Video**
Pin 1 (orange/white)	Green conductor RING
Pin 2 (orange)	Green conductor TIP
Pin 3 (green/white)	Blue conductor RING
Pin 6 (green)	Blue conductor TIP
Pin 7 (brown/white)	Red conductor TIP
Pin 8 (brown)	Red conductor RING

MCM Model #	Description
50-7725	**Left/Right Line Level Audio**
50-7730	**Left/Right Line Level Audio, plus Composite Video**
50-7745	**Composite Video Only**
50-7710	**Composite Video Only**
Pin 1 (orange/white)	Red audio conductor RING
Pin 2 (orange)	Red audio conductor TIP
Pin 3 (green/white)	White audio conductor RING
Pin 6 (green)	White audio conductor TIP
Pin 7 (brown/white)	Yellow composite video conductor TIP
Pin 8 (brown)	Yellow composite video conductor RING

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