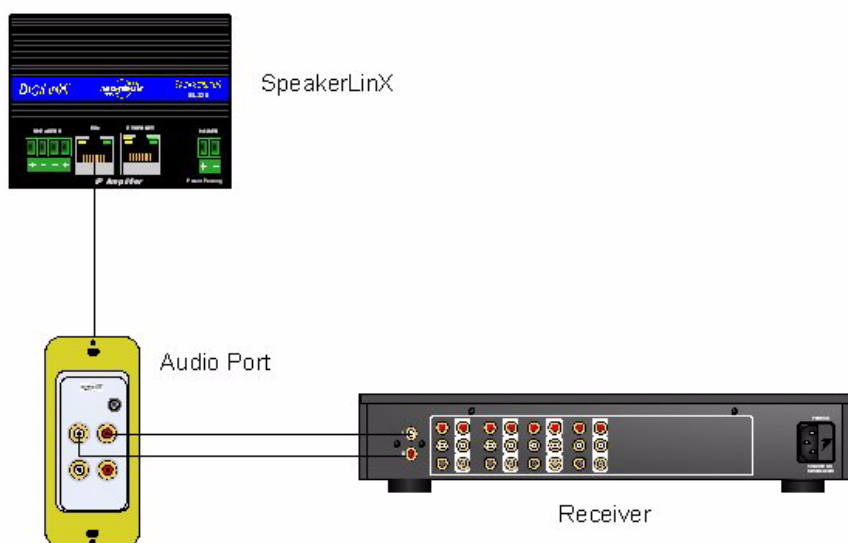


# DIGILINX™ Application Note

## How to Build an EIM to RCA Cable

### Why use an EIM to RCA Cable?

When connecting to a home theater an Audio Port is often used to connect a *DigiLinX* using the EIM port on a *SpeakerLinX™* to a receiver on a home theater (see Figure 1).



**Figure 1** Connecting a source to a *SpeakerLinX* with Audio Port

However, if you are installing the *SpeakerLinX* in a rack and want to run the audio out to an A/V Receiver and/or audio in from an A/V Receiver, an Audio Port may not be the most convenient way to accommodate the installation. In that case, by following these instructions you can make your own EIM to RCA cable and run it directly from the *SpeakerLinX* to the audio input & output connections on the A/V Receiver.

**NOTE:** The maximum length of this cable can be no longer than 60 feet, including the terminations!

The EIM-to-RCA cable has an RJ45 connector on one end and four male RCA connectors on the other. The RJ45 connector plugs directly into the EIM port and the four RCA plugs function as the Local Audio In (left and right) connections and the Audio Out (left and right).



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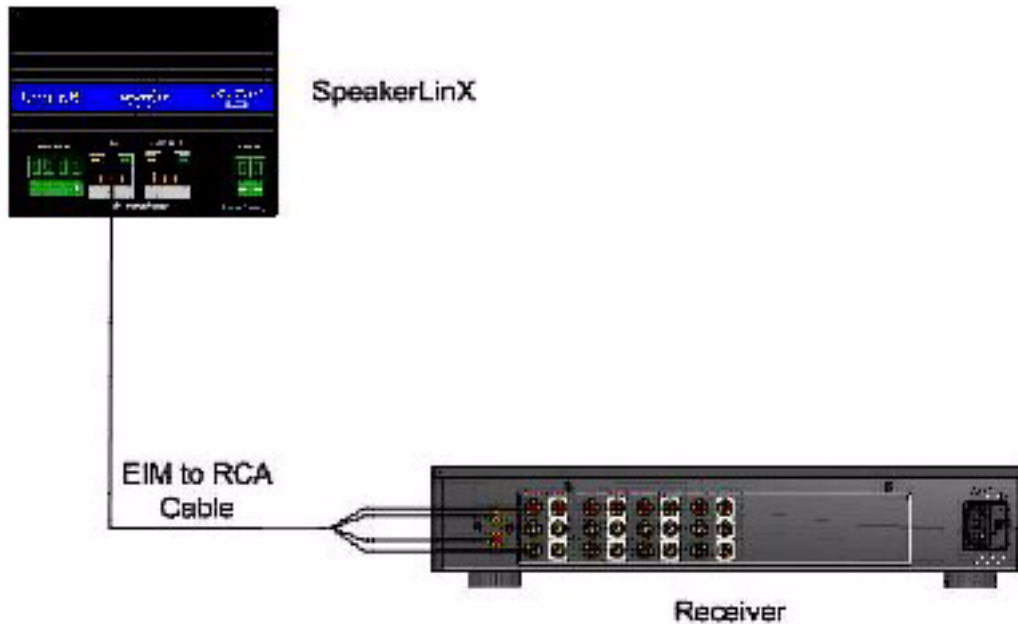
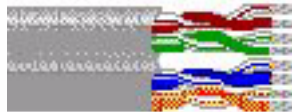


Figure 2

## Required Materials to make the EIM to RCA Cable:

- CAT5e cable OR Paired Enhanced Category 6 bonded Cable (8 Conductor, 24 AWG 7x32 Stranding)
  - Recommended part number: Belden 1875GB Paired Cable



- 1 RJ45 connector
- Soldering Iron
- Heat Shrink tubing

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**CAUTION!** THIS WILL NOT WORK IF THERE ARE BREAKS IN THE CAT5 CABLE! For Best Results, Use an 8 conductor, 24 AWG Stranded Cable! (Belden 1875GB Paired Cable)

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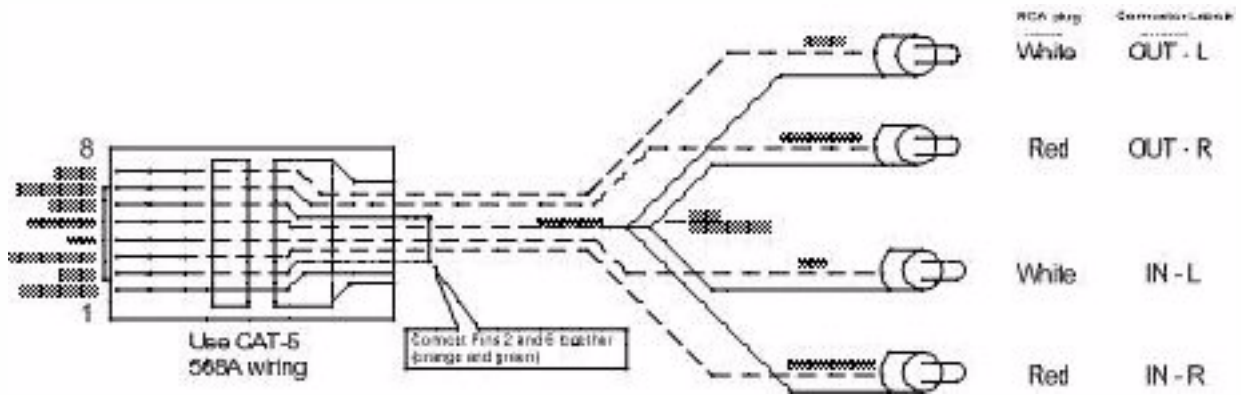
## Creating the Cable

To create the cable:

1. Connect pins 2 and 6 (orange and green) together.
2. Wire the ground shield of the RCA plug to pin 5 (blue/white).
3. Label the RCA plugs In and Out.

**NOTE:** Make sure wires are properly color coded (red is right and white is left).

Figure 3 displays the proper pin out.



**Figure 3**

4. Test the cable.
5. Heat shrink the connectors to give the wire more support.