
Subject: Re: 2pi tower crossover: mono or biwiring?
Posted by [Wayne Parham](#) on Fri, 17 May 2013 17:06:39 GMT
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No problem, that's what we're here for. Let me give you some visual aids so you can understand what is gained by reducing amplifier bandwidth.

First, let's look at two signals. One is bass:

The other is treble:

When you put them together, as all music content does, the resulting signal looks like this:

That's fine, and it is what we want. As long as the amplifier has enough voltage swing capacity, it can do everything we need. But you'll notice the treble sort of rides on top of the bass. So if the amplifier doesn't have quite enough voltage capacity, it may clip, like this:

If you separate the bass from the treble ahead of the amps, then each amp will have less peak voltage requirement.

File Attachments

- 1) [low_frequency.gif](#), downloaded 4875 times
 - 2) [high_frequency.gif](#), downloaded 4834 times
 - 3) [combined_without_clipping.gif](#), downloaded 4854 times
 - 4) [combined_with_clipping.gif](#), downloaded 4885 times
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