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Subject: MLTL Single Driver Full Range Bipoles  
Posted by [FredT](#) on Thu, 13 Nov 2008 14:38:02 GMT

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This was a very low cost experiment based on an enclosure design first suggested by Greg Monfort on the DIY Audio forum, and later adapted by Jim Griffin for use with the Creative Sound Solutions FR-125S drivers. This might be considered a frugalophile version of Jim's design, because it uses two \$27 Tang Band W4-1052SD drivers per enclosure instead of the pricier CSS drivers. Of course there's no free lunch, and the CSS drivers are better built and better sounding than the Tang Bands in several ways, but the TB's still sound very compelling in this enclosure. The drivers are four ohm impedance and are wired in series for an eight ohm nominal load. Unfortunately their sensitivity is relatively low, and they have a rising response curve much like the Fostex Fe-167E that requires a network for any semblance of balanced sound. Consequently the sensitivity is about the same as I recall from a pair of Magnepans I used to own. Low power SET tube amps are not recommended. My 200w/ch Krell drives them just fine. For the network I used a 2mH air core inductor with a five ohm resistor because that's what I had in the parts bin, but I believe a 1.5mH with a four ohm resistor might be adequate. I auditioned these speakers for the most critical listener I know, my wife, and she said "they sound good". No audiogeek-speak from this chick, either they do it for her or they don't. These do. My impression is that the bass is very good for such small drivers and the treble is clear and extended enough that you don't sense any absence of air. The big plus feature of these speakers is the open airy soundstage - not as precise as with a monopole speaker, but more like live music actually sounds in a music venue. The enclosures are built of 3/4" birch plywood. This is a fun project that can be built for less than \$150.

MLTL Bipoles

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