

The “Blues”

As far back as I can remember, I’ve been surrounded by stereo systems. If it wasn’t something in my parent’s house, it was definitely something in one of the vehicles my dad owned. Based on that and coupled w/ the fact that I can’t seem to get enough SQ in my now adult life, I think it’s safe to say this disease is genetic; but that’s not to exclude the strong possibility that it’s also very contagious (you’ve been warned)!!

I think anyone that also suffers from this plight can relate to being left in the cold when the local stereo stores all started disappearing, leaving us w/ big box stores as our only option in the endless search for that truly amazing, and natural sounding system. Or, so it seemed...

My journey building speakers started about 5 years ago when, in a roundabout way, I heard about some of the speaker kits that were offered. Being very skeptical about DIY home audio speakers, but also being someone that loved woodworking, I decided to start w/ something cheap and use it for my garage system (if nothing else, I would have fun building something!). I chose the Tritrix MTM TL speakers, a speaker designed by Curt Campbell at Speaker Design Works. To be honest I wasn’t expecting much and I already had a pair of Infinity RS-4 tower speakers that I used in my garage, if these came close to the sound quality of the Infinities I would be satisfied. Once I finished building these speakers, I was blown away at how good \$150 worth of speaker and crossover parts could sound. Not only did they sound good, they had much better mids and highs than those Infinities and they also seemed to beg for abuse. Once I realized this actually worked, I wanted more so I began asking questions, reading about speaker design and learning as much as time allowed. I couldn’t help but think, “If this is how good \$150 home made speakers sound, how much better will...” (I sense my wife rolling her eyes right now!)

Since then I’ve built numerous other kits in various price ranges from cheap to fairly expensive, and also visited a few DIY speaker shows. Going to these events gave opportunities to hear all the fantastic designs other guys were building and the opportunities to learn from them, and I was looking for something to replace the JBL Northridge series speakers in my home theater system. After a lot of searching, I decided this time I didn’t want to do another kit, this time I wanted to do the leg work on my own design. Choosing to do my own design wasn’t due to being unsatisfied w/ anything else I heard, I simply wanted to take my addiction to the next level.

For my new design I chose the HiVi L6-4R mid-woofer. In all honesty, I chose this driver simply based on how sexy it looked, and also because no one that I was aware of had used this in a design yet. I know this is not the best approach to speaker design, but in this situation I think I may have been fortunate. After Meniscus measured the speaker, I knew it would play well in the cabinet dimensions I had to use so I could incorporate this into my home’s setting (roughly a 0.5cf cabinet, mainly based on WAF). I also needed a tweeter, and decided the SB Acoustics SB26STAC tweeter was a promising, cost effective option. Now that I had my drivers, I needed a cabinet.

The preliminary cabinet I built measured 9" wide x 16" tall x 11" deep (exterior dimensions) and I used ¾" MDF w/ an H style brace behind the mid-woofer, which yielded a 0.6cf cabinet; this is the cabinet we measured the speakers in to build the crossover. This is also where I got the inspiration for what I decided to name this build; I cut circles the same diameter as the drivers out of an empty 12 pack case to initially figure out driver location in the cabinet. I would never have been able to pull this off without the boys at Meniscus; they were beyond helpful in this endeavor. Chad's wisdom and ear for crossover design was incredibly helpful, and Mark's design help and input in this project was invaluable.

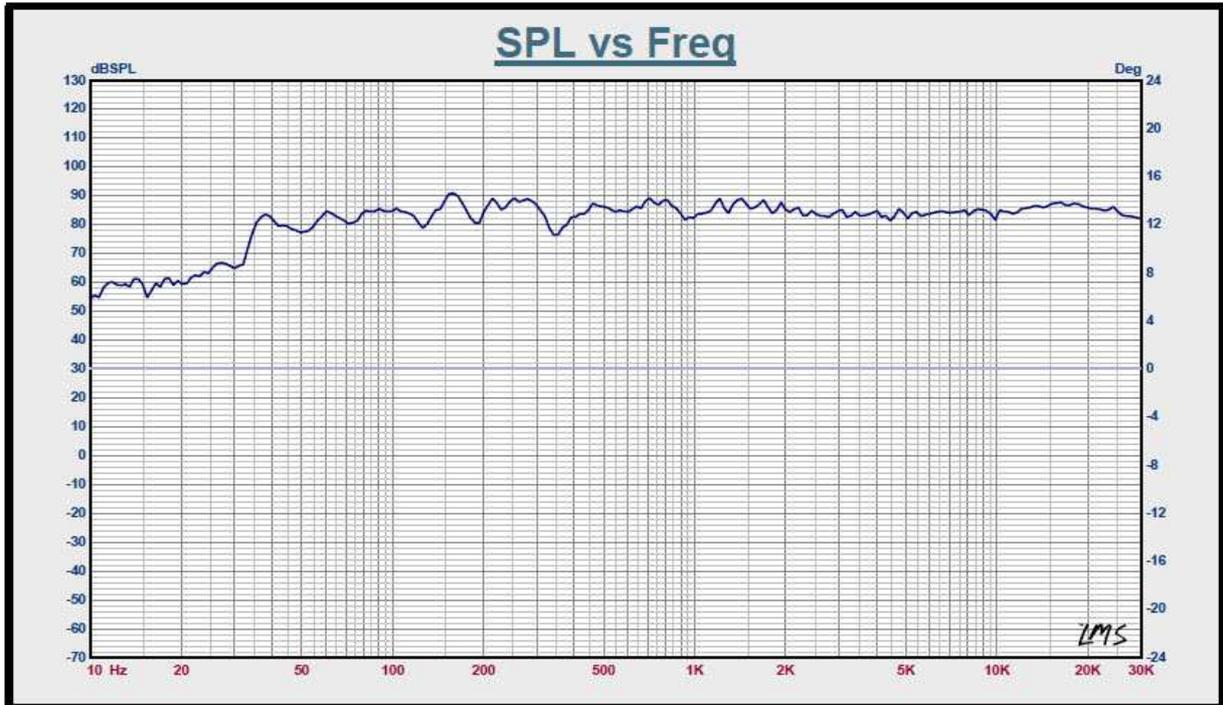
Once I had the crossover completed and wired in, I finally had the opportunity to listen and all I can say is... WOW! These little TM bookshelf speakers definitely pack a punch! I've never been a fan of bright speakers, and the first thing I noticed is how amazingly warm, refreshing and natural the mids and highs are. The next feature that stands out is the amount of bass such a small package produces; not overly dark sounding at all, but still an incredible amount of punch for their small package. I also need to include their ability to manage extreme sound levels beyond what I would expect from something so small, these shine here as well.

My cousin Andy and I have been good friends since we were old enough to know we were cousins, and we both seem to suffer from the disease of audiophilia. Once he heard these, he wanted some for his home to replace the Paradigm speakers he was using in his HT system. He didn't want to go through the process of building his own cabinets, so he chose to use some 0.5cf pre-built cherry cabinets. The cabinets he used had a 14" tall x 8.5" wide front baffle, and the variation in dimensions (as well as being .01cf smaller) didn't have any noticeable effect on SQ. The nice thing about this is that if you don't want to go through the process of building cabinets, this makes it a fairly quick and easy project. Andy also wanted something that managed to dig a little deeper for his front speakers, so we also did a MTM version for his system's front and center channel speakers, while he used the TM version for his rears. If you're looking for a full range version, the MTM version is a good candidate. If I were to compare the TM version to the MTM version, I would say they both sound very similar. Both have refreshing mids and highs, and the mid-bass is spectacular; but if you're looking for a bit more on the bottom end the MTM is the way to go. He also used prebuilt cabinets for the MTM, the cabinet dimensions were 22" tall x 9" wide x 13.5" deep and were constructed with ¾" MDF (which yielded a 1cf cabinet).

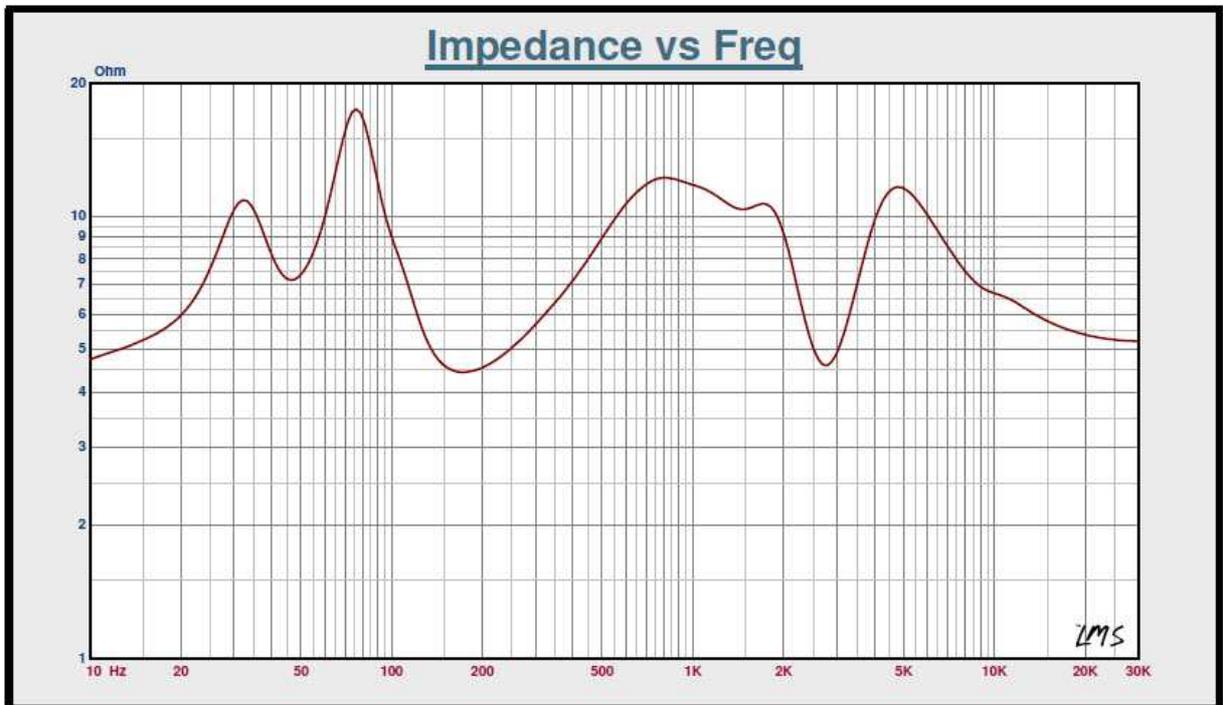
Satisfied isn't the word, I'm thrilled with how this project turned out. I can't wait to take them to some future DIY speaker demos to get listening impressions from fellow speaker builders. In my opinion, for the money it will be tough to compete with the punch these little monsters pack!!

Matt

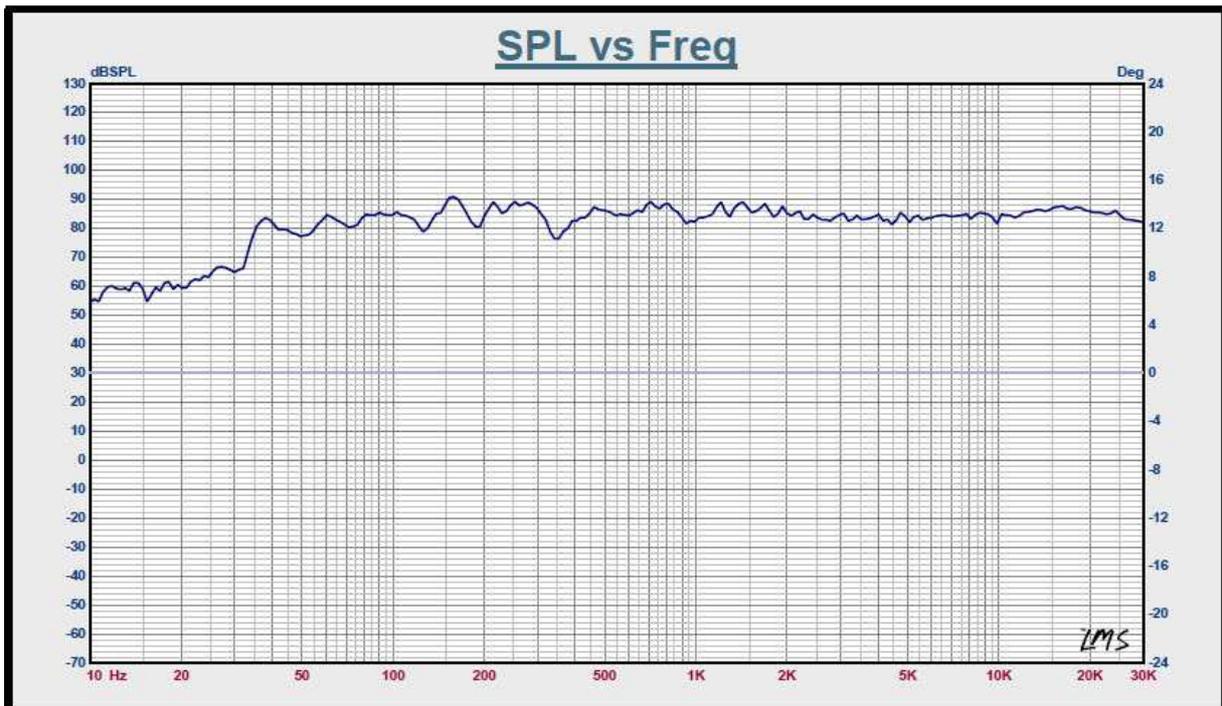
TM SPL



TM Imp



MTM SPL



MTM Imp

