



the Stereo Times

The Complete Audiophile Magazine



- HOME
- ARCHIVES
- MostWanted
- RECORD REVIEWS
- AD INDEX
- CONTACT
- SHOW REPORTS

Associated Equipment:

Digital Front End

Quad 99 CDP
 CD player
 Toshiba 2105
 DVD player

Amplification

Marsh A400S
 amplifier
 Marsh P2000B
 preamplifier

Loudspeakers

Quad ESL-989
 Paradigm
 PS1000
 subwoofer

Cabling

Acoustic Zen
 Silver
 Reference and
 Matrix
 interconnects
 Acoustic Zen
 Hologram
 speaker cable
 Analysis Plus
 Solo Crystal
 interconnect
 Analysis Plus
 Gold Fiber

TBI Magellan VIII su Subwoofer

The Race for Bass 2: Will You Know the Finish Line When You Cross It?

Dan Dzuban



November 2004

The Key to Life is Figuring Out What Really Matters

I previously wrote a "The Race For Bass" piece on the Hsu Research HO 1220 (sneak peak:speak041403a.shtm) in



Oval Eight
speaker cables
Analysis Plus
Power Oval
power cables
Custom House
Barracuda
power cables

Power Conditioning

Monster Cable
HTS 5000
power
conditioner

Accessories

DH Labs small
cones
Vantage Point
Euro
Audio/Video
Racks
Home-brew
roller bearing
system
Home-brew
lead shot bricks

which I concluded that Hsu's subs truly provide quite the performance for mass-fi prices. For ultra deep, tight, powerful bass at real-world prices, it really is tough to beat Dr. Poh Ser Hsu's Hsu Research designs. But I also qualified that although probably the perfect solution for 99% of the world's speakers, the HO 1220 was not the perfect solution for adding sub bass to my Quad ESL-989s. Me, and other members of that 1% club still need a subwoofer that won't just provide deep, tight, and powerful bass, we also need a sub that perfectly integrates with our speakers. Somewhere along the way, my audio antennae began picking up buzz about a new design that could keep up with the world's fastest speakers. This sub, the TBI Magellan VIII su certainly piqued my interest.

It really has been amusing to watch all of the audio marketers throughout the years as they try to come up with hooks, gimmicks, and parlor tricks to sell their wares. There are some especially good ones used to pitch subwoofers. I have seen more than one try to amaze with the excursion of their woofers, the ability to make small objects around the room vibrate, the ability to vibrate your butt, or the ability to make you nauseous. I remember one particularly stupid one from our friends at Bose. They had a demo where you could watch an acrylic-walled Acoustimass Sub chuff foam pellets through its bass reflex ports as music played. The problem with that and all of the other demos is WHAT THE HELL DO THEY HAVE TO DO WITH REPRODUCING A LIVE PERFORMANCE?! Absolutely nothing. In some ways I can't blame these marketers because such pitches exist when you don't have a focused marketing message. In this case

Audio Consulting
"Emotion in Sound"

R-evolution
Minima



HighEndNovum



you don't have a focused marketing message. In this case, very few have been able to specifically identify the purpose of a subwoofer, let alone craft a cohesive message to support that purpose. Sure, everyone has a general idea of what a subwoofer is supposed to do, but very few companies have built designs and marketed them cohesively with the goal of supporting the illusion of a live performance.

To me, the most ubiquitous yet ultimately detrimental demonstration of subwoofer performance is whether a subwoofer disappears within the listening room. Granted, the inability to locate a subwoofer is a prerequisite to a quality subwoofer, but it is a mere beginning to determining the ultimate success of a subwoofer within an audio system. What really matters is not what tricks the sub can perform. If the goal for an audio system is to create the illusion of a live performance, then the audio system must perform as a cohesive system; it must speak with one voice. Indeed, this is an audio truism. A multiple driver speaker must sound as though there is only a single material, a single technology, a single voice. Thus, the ultimate goal for a subwoofer is for it to add missing sub bass without revealing its existence, rather than simply revealing its location. Too much emphasis has been placed on whether a subwoofer can disappear within an audio room, whereas the standard should be whether it can disappear within an audio system.

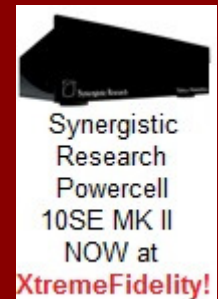
As audiophiles, you have undoubtedly heard about the benefits of deep bass many times. But to summarize, you can experience an increase in soundstage "volume" and



can experience an increase in soundstage "volume" and spaciousness, more apparent accuracy in tonal balance, as well as the realization that there is often musical information that you were just plain missing. But it isn't these benefits that have dictated subwoofer purchasing decisions it is the downsides. Nothing is worse than slow, ill-defined, one-note bass. But even after successfully avoiding an objectively inferior subwoofer, it is still rare to find a subwoofer that subjectively blends perfectly with your main speakers. Yet without this match, the illusion of a live performance comes crashing down. The threat of such has been enough to keep many listeners away from subwoofers altogether.

What the Magellan Is

As for explaining the technology behind TBI, I will quickly concede defeat. You'll have to check out the official TBI website for a complete explanation of their technology. But to repeat the 30,000 ft. marketing overview, the Magellan uses a quasi transmission line loaded enclosure that allows the woofer to "see" the same load regardless of where the enclosure is placed. Hmm. All I know for sure is that the enclosure is rather compact and light for a subwoofer. It is about the same weight and dimensions as a mini-tower PC turned flat on its side. The manual even says that the sub can be mounted on its side, in which case it could pass for a new black Dell PC. Another strange thing is that underneath the enclosure there is some sort of inch-wide, grout-like composite that seals the seam between the underside and sidewalls. And I do mean grout-like, not putty-like. The



enclosure's compact size made it easy to place behind my speakers.

But PC dimensions and grout seals aside, overall the Magellan's fit and finish was excellent. The finish was a flawless black satin with the perfect flat-to-sheen ratio to fit into most any décor. It included a set of first-rate threaded 2" tall brass spikes reminiscent of the Michael Green designs of yore. It even came with matching brass disc floor protectors. Alternatively, it came with threaded metal footers with affixed rubber bumpers, but I really don't see why they would be needed with such high quality spikes and protectors. So, I used the spikes with protectors.

The Magellan is passive, so it came with an outboard power amplifier/crossover (although TBI has an inboard powered version



for those who want to minimize clutter). The amp was an unassuming approximately 6" cube. The front TBI logo glowed green when the amp auto-sensed a signal. The finish was a pebble grained black, but the metal work was surprisingly thick and solid — more so even than my Marsh pre and power amps (but lacking the thick faceplates of the Marshes). Overall, the amp conveyed a utilitarian, but high-

**ACOUSTIC
REVIVE**



**ALMARRO
PRODUCTS**
www.almarro.com

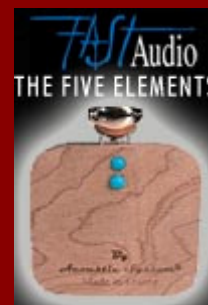


quality feel — in contrast to the DIY feel of the Hsu HO 1220's outboard amps. My only gripe is that seriously cheap-assed binding posts were used, which did not allow for spade connectors. I would have liked to see the same quality gold-plated, knurled metal posts used on the subs themselves—which did allow for spades.

I ran the subs with a low-level output from my preamp. Left and right outputs were fed into the inputs of a pair of TBI amps. The amps controlled the output level and the sub's low-pass frequency — which I kept at around 50 Hz. I did not run a high-pass into my Marsh amp, as I run it in XLR differential mode. Thus, the Quads were running full-range, with a boost from the subs. I would have liked to have a dedicated electronic crossover to see if the Quads would get some additional dynamic range after being relieved of low frequency duty; some other day and time.

Like the Hsus, I used a pair of Magellans for my audition. But unlike the massive Hsus (which I have to admit were cool in a macho sort of way—there's something about 2 big black Quad obelisks and 2 matching big black columns to prove that you are out to kick some audio ass!), the Magellans were easily hidden on the floor behind the Quads. There was some dramatic symbolism and foreshadowing going on with the Magellans hiding in the room so unobtrusively.

[What the Magellan Does](#)



The fine fellows at Quad claim a -3 db lower limit of 30Hz, with additional usable low frequency output below that. Hmm. I think they're a bit optimistic; maybe about 40-45 Hz, with a brick wall drop off after that. I'm even more certain of this after adding the Magellans. Now I can hear what I have been previously missing, and that turns out to be a LOT of musical information. But what shocked me more than hearing that much information was that it didn't sound as though it didn't emanate from the Quads. With the Hsus, I was never quite confident that I had the subs' volume at the right level; I could always hear the additional bass no matter what the volume setting. Whereas, virtually no matter what volume level the Magellans were set to, it always seemed as though the bass was due to the Quads. Granted there was a point where there was clearly too much bass, but it sounded like the Quads had too much bass, not that a subwoofer was turned up to high. So what the Magellans did was pull off a disappearing act equivalent to what a pair of Quads do. There was no trace of them in my listening room. I was left with just the music. My work as a reviewer gets easier in this situation. There was little sonic signature to give away the subs' presence so there was little to describe its sound. What I heard was as much pitch definition, individual note definition, beat definition, leading edge definition, and trailing edge definition as I had ever heard from a speaker reproducing bass, let alone from a subwoofer. The Magellans didn't just keep up with the speed of the Quads: for all intent and purposes, they had become part of the Quads. Yet, the Magellans provided the bass impact and tactile sensation that Quads had been

unable to provide on their own. The additional low bass support also gave the Quads more apparent dynamics. As a result, I felt as though I had come closer to reproducing a live performance than ever before.



Specifically, I threw the usual bass suspects at the Magellans, in addition to my usual standards. The subs never once meddled with Sade's voice throughout Love Deluxe [Epic EK53178], but they sure added to the

emotional context of "*Cherish the Day*". The song conveys the writer's tortured feelings of both passion and contempt for a lover partially by juxtaposing a strong propulsive beat with measured restraint. The ability of the Magellans to produce this beat with gut-wrenching impact while its complete lack of overhang stoically kept the time was extraordinary. With the Quads alone, the lack of deep bass impact, well, resulted in less impact. And with other subs such as my Paradigms or the HSUs, the bass overhang completely diluted the starkness of the beat and diffused the emotion behind it.



They had agility in spades, but the Magellans could also kick ass when called for. In Enya's "Longships" from *Watermark* [Reprise 9 26774-2], and on "Temple Caves" and

"Mysterious Island" from Mickey Hart's Planet Drum [RYCODISC RCD 10206], the air literally shook with sub bass. I could feel the energy in my chest and in my pant legs. Needless to say the Quads did not do that on their own. Planet Drum is a standard for bass performance. It is almost entirely African and South American-inspired, and gives you every kind of bass, with numerous instruments making all kinds of sounds that are otherwise alien to me. As with Sade, you could definitely here how quickly the Magellan started and stopped on bass notes, as well as the differentiation of pitches of previously identical notes.

What The Magellan Doesn't Do

The Magellans clearly were ideal for my system and my electrostatic speakers. But would they be ideal for everyone? I can give you an answer that is both unequivocal and equivocal (which would make it equivocal by default now, wouldn't it?). With music reproduction, it is understood that music itself is the standard—I keep referring to the question of whether a recording sounds like live music. But when you throw movies into the mix, it is a different story. Who is to say what is right for a particular explosion, dinosaur footstep, or sound effect? A tyrannosaurus rex's footstep might have a bit more edge definition and less overhang in real life than how it has traditionally sounded at the movies, but perhaps it sounds just like the director and his recording engineers intended. In other words, a little boom may be good for the emotional impact and overall experience of a movie. (How else can

those seat-vibrating subwoofers be explained?) Many listeners have likely even come to expect a degree of boom to add excitement into their music — even if they are not willing to come clean and admit it. But the Magellans produced less of this than any other sub I have heard. So for cinema realism, the Magellans probably aren't the end of the line. I can see many listeners not appreciating the Magellans for that reason; they don't do what is traditionally expected from a subwoofer.

So I can unequivocally recommend the Magellans for electrostats, ribbons, planars, monitors, and other agile or high-speed speakers that are fed a diet primarily of music. However, I also must equivocate and say that if home theater is a big portion of your entertainment, you may be missing out on some performance with the Magellans. You may also not appreciate them if you are into speakers voiced more boisterously, more big and bold, or more full-bottomed. You are simply likely to be better off with the HSUs at half the price, and no one should try to convince you otherwise. One final consideration is their maximum volume capability. In my mid-sized room, the two Magellans needed to be turned to about 3/4 of maximum output for ideal integration. That does not leave much headroom for larger rooms whereas I barely reached 1/3 of max for the HSUs.

What Matters

My final analysis of the Magellan VIII su is a simple one; this

is a sub that leaves zero trace of its existence in the fastest of speaker systems. You will simply be left with first-rate sub bass extension and all the privileges and benefits that come with such. All of the audio niceties were present, but most of all, the bass was completely consumed by the illusion of a live performance, rather than artificially originating from a pair of subwoofers. First rate performance and first rate integration; I have found my finish line in the race for bass. My only concern is whether audiophiles will recognize the finish line when they cross it. Will they appreciate ultimate bass transparency or are they conditioned to want something different altogether? The TBI Magellan VIII sub legitimately gives audiophiles this choice.

Clement Perry adds second thoughts:



I have had some extended listening time with the Megellans and must admit that they are EVERYTHING Dan stated. Dan was quite adamant about these mini-monster's exquisite disappearing act long ago and pleaded with me to give them an audition. I did and came away super impressed especially when you consider their asking price. Going up against stiff competition like the (two-times more expensive) Talon ROC AK12's didn't seem to intimidate the Magellans one bit. As a matter of fact, they seemed to enjoy the comparisons; going as far as outdistancing my mighty ROC's in blending into the very fabric of whatever music I chose to play. Dan was right.

These subs don't have a sound at all!

I attribute much of this low-to-no noise or resonances to the Magellan's very small cabinet and ingenious internal design. The port is also quiet as a church mouse. There was no chuffing noises detected even inches away. Smartly designed through and through.

I did not use its optional bass amp but chose to use the same amps I run the Talon ROCs through their paces with: the Acoustic Reality eAR One Plus monoblocks. Rated at over 350-watts per side with a mind-bogglingly high damping factor rated at over 3000! I wasn't sure what the outcome would be for these subwoofers; second-guessing if it was safe due to their un-subwoofer-like dimensions. So I made a call to designer Jan Plummer and he insisted I go right ahead and use these most unusual monoblocks with his subs.

I will state here for the record that the sound of these subs via the eAR amplifiers demonstrated a remarkably clean, deep and authoritative performance that was virtually impossible to detect as coming or emitting from their locations (which was right behind each loudspeaker). Their ability to play at high levels is also quite a surprise considering their smaller-than-average size and weight (I literally carried both under each arm upstairs to my listening room).

Ultimately, at the end of some very tough and exhaustive A/B comparisons, I narrowly chose the Talon ROCs over

the Magellans for the simple fact they went deeper, played louder and own a more familiar sound (like most other excellent subs while the Magellan sound almost *too clean* by comparison). I will not say the ROCs are better because I doubt they play as cleanly or disappear as easily. And I'm sure that many potential sub owners will absolutely love what the Magellans do in those regards. But, for me, I want a little extra oomph in the lower registers while sustained notes hang a little longer. One thing is certain: the Magellan subwoofers are, at half the price, a far better bargain and set a new standard in the all-important price/performance category. Be sure you place the Magellan subwoofer on your short list of auditions this holiday season.

Specifications:

Magellan VIIIIsu Passive Bass Module

Frequency Response: 12 Hz – 160 Hz (-6db)

Power Capacity: 120 W RMS (200 W IHF)

Sensitivity: 90 db 1w/1m @ 25Hz

Driver Complement: 8" Low Mass Single Piece Convex Aluminum Cone

Connection: 5-way binding post

Impedance: 8 ohms nominal

Accessories: Custom Brass Isolators - Standard Large Rubber Feet

Dimensions:

Width: 17.5 inches (444.5 mm)

Depth: 17.5 inches (444.5 mm)

Height: 6.8 inches (172.72 mm) no feet [8.5" (215.9 mm)
w/spikes]

Weight: 26 lbs (12kg)

Warranty: 5 years

Price: \$1200

TBI 200su Subwoofer Power Amplifier

Frequency Response: 10 Hz –150 Hz (-3db x-over @ 150
Hz)

Power Output: 200W 4Ω (150W 8Ω)

Controls: Level—Phase--Crossover 50 Hz-150 Hz
(18db/oct)

Connection: 5-way Binding Posts

Accessories: IEC Power Cord

Dimensions:

Width: 6.25 inches (158.75 mm)

Depth: 8 inches (203.2)

Height: 6.75 inches (171.45 mm)

Weight: 6 lbs (2.72 kg)

Ac Input Requirement: 120V- 240V 50-60-Hz (Internal
Jumper Selectable)

355 VA max

Warranty: 3 years

Price: \$450

Address:

Thorough Bass International

341 England Pl., NE

Marietta, GA 30066

USA

Email: sales@thoroughbass.com

Telephone: 877-828-7829

Website: www.musicalsubwoofers.com



TBI Magellan VIII su Subwoofer

HOME

ARCHIVES

MostWanted

RECORD REVIEWS

AD INDEX

CONTACT

SHOW REPORTS