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Reviewed by  
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## Hsu Research HB-1 Mk.2 / HC-1 Mk.2 / VTF-3 Mk.3 Home-Theater Speaker System



### FEATURES SNAPSHOTS

#### Description

**Model:** HB-1 Mk.2 bookshelf speaker

**Prices:** \$149 USD each (satin black), \$179 (wood veneer), \$199 (piano black)

**Dimensions:** 15"H x 8"W x 8"D

**Weight:** 14.5 pounds each

**Model:** HC-1 Mk.2 center-channel speaker

**Prices:** \$239 USD each (satin black), \$279 (wood veneer), \$299 (piano black)

**Dimensions:** 23"W x 8"H x 10"D

**Weight:** 22 pounds

#### Features

##### Speakers:

- 6.5" treated-paper cone woofer with treated-cloth surround
- High-efficiency, controlled-directivity horn tweeter with neodymium magnet and ferrofluid-cooled voice coil
- Metal binding posts

## Subwoofer:

**Model:** VTF-3 Mk.3 subwoofer

**Prices:** \$699 USD each (satin black), \$799 (wood veneer)

**Dimensions:** 21.5"H x 17"W x 25"D

Weight: 90 pounds

**System price:** \$1534 USD (all satin black)

**Warranty:** Seven years on speakers; two years on electronics

- 350W (manufacturer rated) amplifier
- 12" woofer
- Two 4" rear ports
- Variable low-pass crossover
- 0/180-degree phase switch
- Max Extension and Max Output modes

Hsu Research is one of the true pioneers in the area of direct sales. Its products date all the way back to 1991, with the HRSW10 and 12 subwoofers. These were, famously, the first commercial "water heater" subs built using large paper-cylinder forms. Many think the Hsu story is only about direct sales, but you don't survive long in this industry via direct sales unless your products are something special. After all, people are taking a huge chance buying an audio product without having heard it. To be successful at this, your reputation for quality, value, and customer service must be beyond reproach. Audio companies come and go all the time, but for a direct-sales company to thrive for 17 years, they must be doing something right. So when a company like Hsu Research extends its business model from subwoofers to conventional loudspeakers, it had better be good.

### The system

The system Hsu Research sent me consisted of four HB-1 Mk.2 bookshelf speakers (\$149 USD each), an HC-1 Mk.2 center channel (\$239 each), and a VTF-3 Mk.3 subwoofer (\$699 each). The HB-1 and HC-1 were finished in a nearly flawless satin black that made them look much nicer than their low prices might suggest. Finishes of three real-wood veneers and piano black are also available at additional cost. The grilles are held in place magnetically, a trend I applaud. None of these speakers is magnetically shielded, but that matters much less in this day of plasma and LCD TVs than it did just a few years ago, when CRTs reigned.

The VTF-3 Mk.3 sub's maple finish is a big step up from the industrial finish of the original VTF-3 I reviewed a few years back. This is good news -- this big sub will be difficult to hide no matter where you put it. "VTF" stands for Variable Tuning Frequency, which means that you can alter the sub's low-frequency output by opening or plugging up the rear ports. Remove a plug and flip a switch and you gain 4dB of output, at the cost of some low-frequency extension. The VTF-3 is rated at 18Hz, -2dB, in Max Extension mode, and 25Hz in Max Output mode. There's a Turbo option for those who need even more output, but I can't imagine anybody with a room of average size needing it.

Setup was pretty conventional. The HB-1s all went on stands, to place their tweeters as close to ear height as possible. I liked the sound ever so slightly better with the tweeter lower, but as always, different rooms may produce different results -- your mileage may vary. I placed the HC-1 center atop my equipment rack and below my display. The HC-1 comes with its own stand with which you can aim the speaker up or down across a pretty good range. It's an incredibly simple design that's very effective, and beats the heck out of the old rubber-doorstop trick.

The VTF-3 Mk.3 subwoofer ended up near the front corner of the room, though its size meant I had to place it closer to the corner than I would have liked. I tried the Max Extension and Max Output modes, and quickly settled on Max Extension, which put out enough power to rattle pictures, doors, and the dog in my modestly sized room.

### Listening

The first thing I want to know about any small speaker is if it can rock. If it can't, that's a serious mark against it. So I cued up *Led Zeppelin II* (CD, Atlantic 82633) and gave it a whirl. In short, yeah -- the Hsus *rocked*. Wanting to know how they'd sound without a sub, I took the VTF-3 out of the loop and cranked up the volume. They played very loud without any sense of strain. I played drums for a few years in my increasingly distant youth, so I tend to be picky about the reproduction of percussion. Few budget speakers even come close to getting it right, so I was shocked when John Bonham's bass and toms on "Moby Dick" came out solid and tight, with just the right amount of

impact. I've heard many speakers costing several times the price of the HB-1 that don't do nearly this well with drums. Very impressive.

A friend of mine once characterized Nanci Griffith as having a "voice that could cut steel." I suppose many will think that supremely unflattering, but when I listen to her voice I hear strength and distinctiveness. You could do worse as a performer. However, that sharp, clear voice trips up more budget speakers than I care to think about. I was concerned about coloration on female voices because of the horn loading of the tweeter, but, as it turned out, those concerns were completely unfounded. On *Winter Marquee* (CD, Rounder 613220), it's apparent that Griffith's voice has matured and deepened over the years; the steel is somewhat softened, but its edge is still there. The HB-1s reproduced her voice in all its glory, with just the right tempering: not too sharp but never dull. Few speakers in this price range could do nearly as well.

I then tried Mendelssohn's Violin Concerto in E Minor, Op.64, performed by Mariko Honda (CD, Naxos 550111). As usual, Naxos has done a superb job of recording a fine performance without spending huge money on the biggest names in the business. Honda, conductor Keith Clark, and the Slovak Philharmonic actually give more than a merely fine performance, though -- I find this recording very moving -- and the Naxos engineers have done their usual good job of capturing the music. Through the Hsus, Honda's violin sounded very natural, with no obvious coloration, and the soundstage was incredibly large and lifelike. Instrument placement within the soundstage was not as pinpoint precise as I've heard with some more expensive speakers, but it was still very good, and even portrayed a little depth. Overall, I thought the Hsus performed marvelously with classical recordings, especially when considering their more than reasonable price.

The Blu-ray version of *Pearl Harbor* offers the home-theater enthusiast an above-average picture and a fairly spectacular PCM soundtrack. If you can sit through the dumb parts, you'll be nicely rewarded by the battle scenes. The Hsu system acquitted itself well, never once failing to keep pace with the most thunderous explosions. Budget systems aren't supposed to be able to attain this kind of dynamic range and still maintain their composure? They do now.

Even better was the frequently frenzied soundtrack of *Harry Potter and the Order of the Phoenix*. There's nothing about the PCM audio or VC-1-encoded video that isn't 100% reference quality. The quality of the surround track is astonishingly good, and the matched Hsu fronts and surrounds took good advantage of this, providing the most detailed, complete surround presentation I've heard for anywhere close to the system price of \$1449. The sounds of the mirrors breaking when the students are caught practicing magic bursts forth naturally from all around, but through the HB-1s and HC-1 the crashing of glass was presented with nearly perfect accuracy.

For a romantic comedy, the feature film *Sex and the City* has a surprisingly nice Dolby TrueHD soundtrack. While it's not the most active surround track I've heard, there's a fair amount of subtle and sometimes not so subtle background city sounds. I've always felt that a system's ability to do justice to subtle sonic ambience is just as important as its ability to portray cars blowing up at +100dB, and the Hsu system did the former very, very well. Dialogue intelligibility isn't the problem with center-channel speakers that it once was, but it's worth noting when a system priced as low as this delivers dialogue that's always very clear and easy to understand. The HC-1 center channel did have some noticeable frequency-response anomalies when listened to far off axis, but from anywhere within normal viewing-listening boundaries it was impressively clear.

## Comparison

I had no budget speakers in-house to compare the Hsu system to other than a couple pairs of previous-generation Infinity Primus bookshelf speakers I sometimes use as surrounds, but the Hsu speakers were so much better that the comparison would have been laughable. It's not that the Infinities are bad (and they were a steal at the \$30 each I paid on clearance), they're just not up to the standard set by the Hsu system, which begs to be compared to speakers costing many times its price. While this will point out flaws that most owners of speakers in this price range would never notice, it also points out just how far budget speakers have come, and how steep has grown the curve of diminishing returns.

So to size things up, I used the Paradigm Reference Studio 100 v.2s. This version of the Studio 100 cost \$2200/pair before its most recent update -- not only is it not what most people would consider a budget speaker, it's more than seven times the price of the HB-1. Enough of a disparity? I think so.

The Studio 100 v.2 is highly detailed and revealing, and the HB-1 couldn't come close to it in that respect. I could hear that in film soundtracks or music recordings that contained a lot of low-level detail, some of which went missing with the Hsus. The Paradigms were also more forgiving of placement than the Hsus, though I didn't find the HB-1s too finicky in this regard. It's just that the Paradigms did well enough with just about any placement. Dialogue was also slightly more intelligible through the Paradigm CC-470 v.2 center speaker than through the HC-1. Voices in general were somewhat cleaner through the Paradigms, but again, by a fairly narrow margin. All in all, this was very respectable performance from a speaker that costs a mere fraction of the Studio 100's price, so I have no complaints.

The shocker: With careful tweaking of placement, the HB-1s and HC-1 produced imaging that was every bit as stable as from the Studio 100s, and with a soundstage nearly as deep. Not only that, the soundstage the Hsus produced was even more open and natural than that of the Paradigms. While I still preferred the sound of the Studio 100s with classical music and most jazz, the Hsu system projected images that were a little more forward and lively. I found I preferred the sound of the less-detailed HB-1s with most rock music, where the more revealing Paradigms could at times irritate with recordings of poorer quality.

## Conclusion

The Hsu Research surround system of HB-1 Mk.2, HC-1 Mk.2, and VTF-3 Mk.3 is outstanding by any measure. When you take into account the price, it becomes an astonishing value. The speakers look and sound like nothing I've previously encountered in this price bracket. More important, they breathed life into whatever I played through them, which is what it's all about. Budget-conscious shoppers owe it to themselves to give this system a very close listen.

### Review System

**Receiver** - Onkyo TX-SR805

**Sources** - Panasonic DMP-BD30 Blu-ray player, DirecTV HR20-700 HD DVR, Slim Devices Squeezebox Classic

**Cables** - Analysis Plus, Monster Cable

**Display device** - Panasonic TH-50PZ77U plasma HDTV

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