

# The Essential Home Theatre Resource™ **WIDESCREEN** REVIEW®

**HD DVD &  
Blu-ray Disc**  
*A CES Progress  
Report*



Over 45  
**DVD**  
REVIEWS

**Unified  
HD  
Format?**

**What Makes A  
Display HDTV?**

**Products In Review**

**Samsung  
HLP-P5063W  
HD Monitor/NTSC TV**



**PSB Platinum Series  
Loudspeaker  
System**



# THE INCREDIBLES



\$5.99 US \$7.99 Canada  
Volume 14, Number 3, Issue 94  
March 2005

[www.WidescreenReview.com](http://www.WidescreenReview.com)



## Hsu Research Ventriloquist System

*VT-12 Loudspeaker System  
With STF-2 Subwoofer*

Jeffrey Kern

### Not Just Subwoofers Anymore

Not too long ago, in 1991 to be exact, Dr. Poh Ser Hsu founded Hsu Research (Hsu is pronounced like "sue") on the premise of bringing quality subwoofer designs to the masses without costing those masses large sums of money. The company's reputation of delivering subwoofers with the most "bang for the buck" is legendary in the world of Consumer Electronics. Year after year, Hsu Research is consistently on the forefront of subwoofer technology and innovation. Dr. Hsu's designs of matching tubular cabinetry with extra long ports were one of the first subwoofer designs on the market to play notes deeper than humans can actually hear; all the way down to  $16 \text{ Hz} \pm 3 \text{ dB}$ . Dr. Hsu's original subwoofers were initially purchased by high-end audio enthusiasts looking to save thousands of dollars on subwoofers. It didn't take long for this "best kept secret in subwoofers" to leak out into the home theatre world. As the 1990s and the company's reputation for quality products progressed,

*"...the Hsu Research Ventriloquist VT-12 Loudspeaker System, with STF-2 Subwoofer, blows the concept of poor performance from an HTiB Loudspeaker System clean out of the water."*

Dr. Hsu's designs moved from tubular cabinetry subwoofers to the usual boxed subwoofers, which are usually in use in the majority of home theatres today. In the late 1990s, the VTF-2 Subwoofer was born and became an instant success. "VTF" stands for "Variable Tuning Frequency" port technology. Each port uses the air generated from the long throw woofer to boost the deepest frequencies to deliver tight, controlled, and penetrating bass response. The VTF-2 certainly was a stellar performer—and as it always seems to be the case with Dr. Hsu's subwoofer designs—a great bargain, but the depth of the VTF-2's performance only went down to 25 Hz. Since the range of human hearing dips down to 20 Hz, there was definitely room for improvement. In 2002, Dr. Hsu created the VTF-3 Subwoofer. The VTF-3 was larger and much more powerful than the



#### Ventriloquist VT-12 Six-Channel Loudspeaker System:

System Frequency Response: 80 Hz - 20 kHz  
Characteristic Sensitivity: 90 dB @ 1 watt, 1 meter  
Nominal Impedance: 8 ohms  
Recommended Amplifier Power: 10 - 125 watts  
Warranty: 7 years, parts and labor included

#### Satellites (VT251, VT254)

Video-shielded, 2 1/2-inch full range driver  
Enclosure: Molded ABS, Black and Silver  
Dimensions (HWD In Inches): 6 1/8 x 4 1/16 x 3 1/8  
Mounting Options: keyhole to screw head, Omnimount 10, Sound Gear SATP (the threaded holes are 1/4 x 20, 1.25-inch spacing between the three holes)  
Note: special rear center can matrix 5-channel sound to create 6-channel sound or be used for discreet 6 channel sound

#### Center Channel (VT641)

Video-shielded  
Two 4-inch x 6-inch woofers, one 2 1/2-inch mid-high driver  
Enclosure: Black painted MDF and Silver laminated MDF  
Dimensions (HWD In Inches): 5 (6 1/4 w/ removable base) x 16 7/8 x 8 5/8 (+3/4 of an inch for the rear switch)

#### STF-2 Subwoofer:

Woofer size: 10 inches  
Bass extension  $\pm 2 \text{ dB}$ : 25 Hz  
Crossover: Continuously variable 30-90 Hz, defeatable, 24 dB/Oct  
Phase switch: 0/180°  
Finish: Matte black  
Dimensions (HWD In Inches): 19 x 14 x 18  
Ship-weight: 44 lbs  
120/240 V Capable: Switchable at the factory with internal jumper  
Amplifier Power: 200 Watts  
Warranty: 7 years on the woofer, 2 years on the electronics, parts and labor included

#### Total System Price: \$698

Ventriloquist VT-12 Six-Channel Loudspeaker System: \$299  
STF-2 Subwoofer: \$399

#### Manufactured In The U.S.A. By:

Hsu Research Inc.  
3160 E. La Palma Ave, Unit D  
Anaheim, California 92806  
Tel: 800 554 0150 / Fax: 714 666 9261  
www.hsuresearch.com

S  
P  
E  
C  
I  
F  
I  
C  
A  
T  
I  
O  
N  
S

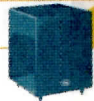
original  
all the v  
took his  
further  
with a s  
age, th  
Loudsp

Con  
Hsu  
Ven  
Lou

For n  
vided u  
system  
and an  
portion  
consist  
ers, ea  
ers, a c  
voice c  
each si  
center  
form w  
and po  
position  
10-inch  
No loud  
with the  
enclosu  
or silver

Set

The  
Ventric  
pretty s  
twist. T  
channe  
5.1-cha  
but mo  
plated  
loudsp  
puts, in  
of hook  
the rec  
nel-for  
you co  
speake  
nel. Th  
ers are  
or integ  
surroun  
loudsp  
nection  
ods, as  
to the s  
channe  
Amplifi  
surroun  
First, th  
directly



original VTF-2, and more importantly, went all the way down to 18 Hz. In 2003, Dr. Hsu took his subwoofer concept another step further and matched his subwoofer designs with a surround sound loudspeaker package, thus the Ventriloquist VT-12 Loudspeaker System was born.

## Components Of The Hsu Research Ventriloquist VT-12 Loudspeaker System

For review purposes, Hsu Research provided us with a six channel loudspeaker system (for the VT-12 portion of the system) and an STF-2 subwoofer (for the subwoofer portion of the system). The VT-12 system consists of five identical satellite loudspeakers, each with two half-inch full-range drivers, a center channel loudspeaker with dual voice coil and 4-inch x 6-inch woofers on each side of a 2.5-inch mid-high driver. The center channel loudspeaker rests on a platform where the loudspeaker can be tilted and pointed directly at the user's listening position. The STF-2 Subwoofer employs a 10-inch woofer and is rated at 200 Watts. No loudspeaker wire or stands are included with the system. The loudspeaker system's enclosures can be ordered in either black or silver. Our review sample was black.

### Setup

The setup of the Hsu Research Ventriloquist VT-12 Loudspeaker system is pretty straightforward, albeit with a slight twist. The system can be set up as a 5.1-channel or 6.1-channel system from just a 5.1-channel receiver or integrated amplifier, but more on that in a moment. The gold-plated binding posts on the back of each loudspeaker act as both inputs and outputs, instead of being inputs only (as normal loudspeaker systems employ). Instead of hooking up each loudspeaker directly to the receiver or integrated amplifier, channel-for-channel, the company prefers that you connect the front left and right loudspeaker channels through the center channel. The surround left and right loudspeakers are connected directly to the receiver or integrated amplifier with the center back surround channel feeding off the surround loudspeaker outputs. The subwoofer connection follows traditional "hook-up" methods, as the STF-2 was connected directly to the subwoofer output on my trusty 5.1-channel Yamaha DSP-A1 Integrated Amplifier. So, how can one get 6.1-channel surround sound from a 5.1-channel source? First, the surround loudspeaker cables directly connect to their appropriate outputs

on the back of your receiver or integrated amplifier, and secondly, the center surround loudspeaker's wire connections share the same binding posts as the individual left and right surround loudspeakers on one end, with the other end feeding the center surround loudspeaker (see Figure 1). The sixth channel of this 6.1-channel array is, of course, shared between the left and right surround output and not discrete or matrixed, but the effect is a much wider and encompassing soundstage.

The front three channel loudspeakers were placed equidistant from the center listening position at a distance of 10 feet with the back left and right surround loudspeakers being about seven feet from the center listening position. The center surround loudspeaker was a bit closer to the center listening position at a distance of about five feet. The STF-2 subwoofer was placed in the front right corner of the room.

### The Ventriloquist Effect

The most effective feature built into this surround loudspeaker system is something called "The Ventriloquist Effect." There is a toggle switch on the back of the front center channel loudspeaker, which activates this effect. When the switch is in the down or off position, the front satellites of the Ventriloquist VT-12 loudspeaker system acts as any 2.5-inch loudspeaker might. With the switch in the up position and turned on—thus activating "The Ventriloquist Effect"—things get a whole lot more interesting. The Hsu's VT-12 loudspeakers now act more like a bookshelf loudspeaker and perform larger than their small size may indicate. "The Ventriloquist Effect" really helps the performance of the system by making the front soundstage sound fuller, more expansive, and performs with more body and substance when the "Ventriloquist Effect" is on than when it is in the "Off" position. With this great feature, the whole loudspeaker system helps to transform your listening space into a home theatre that performs with much more effectiveness.

### The STF-2 Subwoofer

As previously discussed in my opening remarks, Hsu Research has a long history of producing quality subwoofers, which give consumers tremendous value for money spent. Since the company has a storied history in subwoofer design, I expected nothing but excellence from the STF-2 subwoofer. The STF-2 delivered in every area, as even the most minor sonic low bass detail performed beautifully. Bass was tight,

controlled, and extremely detailed. The DVD soundtracks I used to critique the entire system contained their fair share of bass, and then some. The STF-2 kept dishing out impactful and thunderous bass with ease, and it was easy to understand why Dr. Hsu's subwoofer designs throughout the years have been critically acclaimed. The STF-2 is a great match for the Ventriloquist VT-12 Loudspeaker System but would definitely work when matched with other, more expensive systems.

## 6.1-Channel Surround Sound From A 5.1-Channel Source

The Ventriloquist VT-12 System produces 6.1-channel surround sound from a 5.1-channel source. When you compare this feature to more expensive systems, it could be considered some sort of gimmick, as you really aren't getting a discrete sixth channel. But at the price point of this system and the market in which this system is geared to, this feature works really well. Okay, so on paper it seems as though this is a bit of a gimmick, as this is a shared channel not a discrete one, but in reality the resulting effect was very impressive. The extra derived sixth channel definitely added to the emotional involvement I had when listening to all of the subject matter in my listening tests and performance.

## Listening Tests And Performance

I had heard this loudspeaker system at a couple of industry and consumer trade shows within the last year, and they sounded very impressive. As everyone knows, the listening environments at these shows aren't the best venues to critically listen to loudspeaker systems. I had thought if they sounded very good there, then when they are in a controlled, calibrated environment, they have to sound truly phenomenal. The first thought that came to mind was that these small loudspeakers sounded really large. Right out of the box, without much time to warm up and burn in, the Hsu system had a very large theatrical sound to it. After about three days of burn-in, the Ventriloquist VT-12 system took on a much warmer sound and really started to sound even larger than at first listen. Overall imaging and soundstaging was excellent, as the entire system worked in concert to fill the listening space with truly immersive sound. The Ventriloquist VT-12 System worked much better on DVD movie soundtracks than with music; which is great for me as I am much more into movies than I am into

music. I decided to test out three very powerful and well-done DVD soundtracks and one music CD. *Kill Bill, Vol. 1* (in DTS® Digital Surround™) played beautifully on the Hsu System. Dialogue was reproduced naturally, as voices were tonally accurate throughout. There are a lot of horizontal and vertical pans during the film, and the Hsu System performed these pans seamlessly, as these little loudspeakers sounded just great. I never got the sense during *Kill Bill, Vol. 1* that I was listening to a small home-theater-in-a-box loudspeaker system. Sounds moved around the listening space with a transparency that is rarely heard in HTiB loudspeaker systems at this price point. When the lights went down in my home theatre, the Hsu research Ventriloquist VT-12 Loudspeaker System sounded much larger and made the walls of my theatre seemingly disappear. I was thrown into the presentation with relative ease. Speaking of horizontal and vertical pans, the soundtrack of the *Matrix Revolutions* is loaded with them, especially in Chapter 17. When Zion is breached, the machines come in at every

conceivable angle, and the Hsu VT-12 Ventriloquist System, once again, handled these crucial and sophisticated sound effects brilliantly. Every one of the audio channels sprung to life to deliver a fluent soundstage where, because of the execution of the loudspeaker system, you stop watching a movie and start experiencing it. The last DVD soundtrack I used to critique the system was *The Lord Of The Rings: The Return Of The King*. I felt sort of bad throwing this soundtrack at the Hsu Research Ventriloquist VT-12 System because of the sheer sonic power from this Dolby® Digital Surround. The floorstanding full-range Dunlavy SC-V loudspeakers in our Reference Holosonic™ Spherical Surround™ Home Theatre Laboratory had a solid workout when this soundtrack was played through them, so I was very curious as to how the Ventriloquist VT-12 would handle this test. It was with this soundtrack that the smaller loudspeaker system showed its size at times. Overall performance was excellent with great imaging of sound effects, accurate reproduction of voices, and wide

soundstaging, but some of the more stronger sound effects in the more intense battle sequences strained the system a bit. It's funny, but just when the system was a bit strained and seemingly overloaded in one scene, the next scene would go back to impressing me, as this VT-12 system played the soundtrack exceptionally well. On the music side of things, I decided to listen to the DTS CD of *The Eagles: Hell Freezes Over*. "Seven Bridges Road" (Track 16) is a great track to hear harmony in voices and how music interacts with that delicate harmony. As I previously mentioned, the Hsu System performed much better on DVD movie soundtracks than with music-only material, and this track shows some of this inferiority on music source material. Although the loudspeaker system sounded very musical and was still enjoyable to listen to, the fidelity and tonality of voices was a bit harsh and strained, as the full impact of the musical presentation had a slight muted sound to it. The full dynamic range of the presentation was overall a bit lackluster on pure music content. These flaws are very

minor v  
forman  
tem as  
one he  
tively l  
compa  
perform  
more e  
Ventrilo  
Subwo

Cor

Then  
Loudsp  
citizens  
are still  
time, a  
money  
12 Lou  
Subwo  
forman  
System  
yourse  
in the r  
Loudsp

Enjoy the scenery....

we'll take care of the details

Introducing a new generation of video processors for a revolutionary home theater



Vision DVI



VisionPro HDP



Vision HDP

Whether you're looking for the best picture from your standard definition video sources or wanting to truly scale/transcode/deinterlace HD video for your HD display our processors can do it all. They provide multiple SD/HD analog, SDI, and DVI+HDCP inputs combined with DVI/analog outputs. We'd like to list all the features here but there's not nearly enough room.

For details and availability go to [www.lumagen.com](http://www.lumagen.com) or call 866-888-3330

**Lumagen**

© 2004 Lumagen, Inc. Lumagen, Vision DVI, Vision HDP and VisionPro HDP are trademarks of Lumagen, Inc.



minor when you consider what huge performance you get from a loudspeaker system as small as this one is. Also, you get one heck of a performance from this relatively low cost system, as well. When you compare what you have to pay to get the performance at this magnitude with other more expensive systems, the Hsu Research Ventriloquist VT-12 System with STF-2 Subwoofer is a genuine bargain.

### Conclusions

There used to be a time when all HTiB Loudspeaker Systems were second class citizens in the world of audio. While there are still many HTiB systems not worth your time, attention, and more importantly money; the Hsu Research Ventriloquist VT-12 Loudspeaker System, with STF-2 Subwoofer, blows the concept of poor performance from an HTiB Loudspeaker System clean out of the water. You owe it to yourself to give this system a try if you are in the market for a lower cost HTiB Loudspeaker System. Not only will you have

an outstanding performer on DVD soundtracks, but you will certainly be impressed by how big this small system sounds. In the end, I still cannot believe that this big of a sound came from these small loudspeakers. Hsu Research has hit a home run with the

Ventriloquist VT-12 loudspeaker system, as the overall performance really never failed to impress. ■

## NEW DISPLAY? GET IT CALIBRATED BY THE BEST!



With ISF Certified consultants all around North America, Lion AV Consultants can help you make any LCD, DLP, Plasma, CRT, Front or Rear-Projector look as good as it can be!

Now Pioneer CCC Equipped!

Michael Chen  
Michael Hamilton  
Gregg Loewen  
Steve Martin  
Seth Schnaible  
Chuck Williams



Call 201-232-3380 or visit [www.lionav.com](http://www.lionav.com) today!

We can help your business take flight



SENCORE Gives You...

TOOLS | TRAINING | SUPPORT

For over 50 years, Sencore Electronics has provided innovative test equipment, certification training, and the best support in the industry.

Join a network of thousands of companies who have achieved success through providing their clients value added services such as audio, video, and RF calibration.

**A Complete Business Solution!**

50+ years of innovation

**SENCORE**

[www.sencore.com](http://www.sencore.com) • [sales@sencore.com](mailto:sales@sencore.com)  
800-736-2673 • 605-339-0100  
3200 Sencore Drive, Sioux Falls SD 57107