# **SA** Equipment

April 2006

# Audio Physic Scorpio Loudspeakers

A 20 year Tradition!

Review By Todd Warnke Click here to e-mail reviewer.

In a house with two young boys, the sound comes from everywhere. And, of course, you are always listening, even to background sounds, in case of an accident. So, one evening while working in my office and just after the Audio Physic Scorpio loudspeakers had shown up for review, I quietly registered the sounds of Miles and Erik made playing with their mother's guitar in the living/listening room. Which means that several seconds later I



was quite startled when I also heard them playing with their bikes in the backyard. And that is the exact moment that I realized that the Scorpios just might prove to be very special loudspeakers.

Audio Physic, located in Brilon Germany, has spent the last 20 years building one of the most enviable names in the audiophile world by combining advanced technical design and superb cabinetry with a unique approach to room placement, serving the result up in a surprisingly broad lineup. Starting with the sleek Yara at about \$1800, and reaching all the way to the \$70,000 Khronos, chances are Audio Physic has a loudspeaker to fit both your room and budget. That said, one thing I have always appreciated about Audio Physic, unlike other companies who may have several lines with differing sounds, is that each step up gets you the same sound, only more of it. Likewise, each new generation of loudspeaker is the same, only more refined. This speaks well of their confidence in the basic approach they take to speaker design. Indeed, their motto, "No Loss of Fine Detail," has consistently been reflected in each model they make.











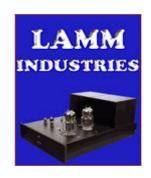
#### Bitten By A New Tradition

The Scorpio is the newest Audio Physic loudspeaker and, at \$6495, sits at a rather tricky price point. Anyone who would casually consider the Scorpios can probably afford a much more expensive loudspeaker, and yet it is a big reach for the majority of the market. So, to be successful the Scorpio has to offer a balanced and deep set of skills so that it can lure budget-constrained folk up the price ladder and also convince those with larger wallets that buying it is all they need do, and that they can then spend a portion of their loudspeaker budget on other things, like, say, the wife. To that end, the specifications of the Scorpio indicate that it has been designed to be a serious, last stop purchase.

With a rated bandwidth of 30Hz to 33kHz, the range of the Scorpio covers all the acoustical music scale with room to spare on both ends. The sensitivity is a quite good 91dB/W/m and is high enough that odds are whatever you are using to drive your current loudspeakers will most likely be able to handle the Scorpios as well. Of course, physics being what it is, and in line with the old joke about cheap, fast and good, you can pick two of these three bandwidth, sensitivity and high impedance — but not all three. So the 4-Ohm load of the Scorpios is not a surprise. Fortunately, it is a fairly flat 4 Ohms and so does not present a difficult load to a well-designed amplifier. Audio Physic recommends at least 25 watts to drive the Scorpios. My experience shows that that figure is conservative as I used both a 30 watt and a 16 watt amplifier for most of the time the Scorpios were in my room and never had a problem.

The computer designed and machined cabinet is shaped like a teardrop, with the tip pointed at the listener, and with both the front and back shaved flat. The narrower front baffle holds a single 1 inch soft dome tweeter, a 6 inch midrange driver and a second 6 inch driver in a woofer-midrange configuration. Mounted on each side of the cabinet is a pair of 7-inch woofers, for a total of 4 woofers and 7 drivers per cabinet. Audio Physic calls this a 3.5 way design as the two 6-inch drivers share responsibility for the midrange, but are crossed over at different frequencies. The speaker also uses two bass reflex ports, one mounted

midway up the rear of the cabinet and the other venting on the bottom. The crossover is located on the lower rear of the cabinet and uses the new Audio Physic VCT (vibration



control terminal) technology. Basically, VCT is a solid aluminum block, mounted to the cabinet using an electrometer (neoprene) to isolate it from the cabinet and unwanted vibrations. Speaker wire connections are made via a single pair of well-made and easy to use WBT binding posts per speaker.

At 43 inches tall and 16 inches deep, the Scorpio could look very imposing. At just 8 inches wide they are quite graceful, especially since the supplied 11.5-inch wide outrigger footers add width to the speakers only at the bottom, enhancing both the stability of the loudspeaker and their elegant looks. Tilted back at 7 degrees, the cabinet time aligns the front drivers and, again, adds to the overall stylishness of the design. The finish work on the real veneer (two types of maple, ash, cherry, ebony and rosenut) is seamless and first class in every way. Lastly, every Audio Physic loudspeaker comes with a 10-year warranty.

#### Associated Gear & The Room

While reviewing the Scorpios I used the following gear. Digital sources were a Cary CD-303/200, a Berendsen CD1, a Blue Circle BC501 and my extremely customized Assemblage DAC1. The reference pre-amplifier was my First Sound Presence Statement while a ModWright SWL 9.0SE also saw a considerable amount of time in the system. Power came primarily from an Art Audio Carissa and a Blue Circle BC6, while other loudspeakers were my reference Merlin VSM-Ms, Triangle Antals, and DeVore Fidelity Gibbon Super 8s. Cabling was from Cardas, Acoustic Zen, Audio Magic, Stereovox and Shunyata Research — the last of which also supplied power conditioning.

And now a brief note about room placement. In the past, much has been written about the Audio Physic method of room placement, and Audio Physic themselves have a very educational and interesting section of their site devoted to the topic. At root, the point they make is very simple and yet often overlooked — your room reflects a bunch of sound and messes up your loudspeakers. According to Audio Physic this happens in three distinct ways. First, bass is affected by boundaries so getting your loudspeakers out into the room will clean up the bass. Second, the sidewall will reflect mid and



upper range sounds, and if they are place too close to the

sidewall, the result is a perceived shift in the speaker location as well as smearing of fine detail. And third, reverberations in your room are at a constant level regardless of where you are in the room, but direct sound from the loudspeakers is cut in half each time you double your distance from them. These three points add up to a recipe for placement that is somewhat unusual. With the speakers pushed up into the room (for the bass) and a specific distance from the sidewall (see their site for the number and why), instead of the standard equilateral triangle with the listener at the point, the Audio Physic method results in a triangle where the loudspeakers are spread about 20 percent wider. In many rooms this can best be achieved by moving the speakers to the long wall, rather then the typical short wall. And, to combat room reverb the method can also result in a fairly nearfield setup, with the speakers being set away from you by about 6 to 7 feet.

I first used this type of setup many years ago when my then listening room forced it on me. With one short wall being taken up with a fireplace and a sliding glass door, and the other with an entry to the kitchen and the front door, a long wall location was the only option, and the idea stuck. In every room since I have tried the long wall and the short wall, and have often had great success with the long wall. I have also tried using speakers in the relative nearfield (though no where as near as Steve Stone does in his excellent desktop system survey) and, again, have found that it usually works quite nicely. There are exceptions of course, but this method can reduce bass modes, sidewall reflections and interference from room reverb. For this review I tried the Audio Physic method as well the Cardas method (found on their website) and had good results with both — though as you'd guess the Audio Physic way was slightly better this time. Ok, enough setup, let's see if this Scorpio has a sting.

#### A Bite To Like?

Starting in the middle, the way the Scorpio handles female voices is nigh unto stunning. I have listened to each and every Joni Mitchell album at least 200 times, and to *Court and Spark* [DCC GZS 1025] at least 1000. As an album it is perfect, with every cut being true A list material and each song taking an honest, revealing yet different angle on love's uncertainties. But as a recording, and in spite of it often being sited as an audiogeek favorite, it has issues. Take the title track, for example. On mid-fi speakers it all sounds pretty nice, with good separation and nice tonality. On solid high-end loudspeakers it is quite obvious that Joni is singing in an isolation booth (of course a quick read of

the liner notes would tell you the same thing as that's Joni opening the song on the piano, panned hard left, while her vocal is just left of center, and without piano accompaniment). This is cool stuff for sure. Taking it further, on superb loudspeakers you can hear the dimensions of the isolation booth. Again cool — at least if you are into that whole aural dissection thing. But the great loudspeakers (and I'm not saying the Scorpio is one of those... yet), take an almost Seurat-like, pointillist view of things, allowing you to focus tight and see the dots that make up the painting, but when you take an audio step back they snap the music into an impressionistic whole. Through the Scorpios, this effect was true magic. Zoom in, and there was detail galore — one time I even thought I could hear the brand of screws used to make that isolation booth — but relax the left side of the brain and unadulterated Joni was released. Sure, she was singing in a box, but she was not confined at all as each note soared with a purity I have heard only with one or two other loudspeakers. Or more significantly, in person. Now that's cool.

For more vocal games in altogether different registers, the most recent studio album from Los Lobos The Ride [Hollywood 2061-62443 2] departs from their usual style, as it features no less than 9 duets spread across 13 tracks. It is filled with a variety of guest vocals from soul stars Mavis Staples and Bobby Womack, to Brits Richard Thompson and Elvis Costello, Latin stars Café Tacuba, Little Willie G and Ruben Blades, plus local L.A. heroes Tom Waits and Dave Alvin. For most groups this would be too diffuse to work, but rather than flop the variety showcases what we Lobos fans have always known, they are simply the American band of the last 30 years. The track with Dave Alvin, Somewhere in Time, is a particular favorite of mine. A countrified, Latin lope of longing, it pairs Alvin's masculine bass with the tonally opposite but no less masculine tenor of David Hidalgo. The earthy Alvin and the celestial Hidalgo alternate verses, but when they join for the chorus the Scorpios shows their mettle as they cleanly stack the two lines while also drawing out each fine strand of timbre. This is harder than normal as the mix places both vocalists dead center, so staging hinders rather than helps in distinguishing them. But the Scorpio has such fine control of each nuance that, even sitting in each other's lap, I found it easy to follow either vocalist.

Dropping down the response graph, on Richard Thompson's *The Old Kit Bag* [Spin Art 126] recruits (no relation) Danny Thompson for the bass work. On *First Breath*, we get the privilege of hearing Richard on acoustic guitar and Danny on acoustic double-bass. Having started as a jazz bassist (his first solo album was a trio recording with John McLaughlin), before moving on to British blues

and folk music, Danny has a feel for the bass that simultaneously encompasses all three disciplines, which is just one reason why he is the dean of British bass players. Anyway, they open this track with a duet that adds Richard's vocal and slowly brings in Michael Jerome's drums. The song — a meditation on finding love late in life, but at least finally finding it — moves in a dignified, at times floating procession that is suspended by the subtle bass line that plays hide and seek with the tom-toms. However, as good as the lyrics are, the heart of the song lies in the last two and half minutes where all three players probe the lessons of time. With the Scorpios, the details of this interplay were vivid, with deep, smooth, even and powerful bass. Though not a wall-buster, the bass filled the room with tonally correct, taut rhythm.

Up top, this track also showed the skill of the soft-dome tweeter. Jerome plays some exquisite cymbals, sneaking into the song with a soft spray of stickwork before gradually working in the rest of his kit. I have a small drum kit in the basement (don't ask) and when no one is around sneak down there to make an unholy racket. Anyway, getting that soft spray sound spot on is about as hard a task as any tweeter can attempt. The leading edge must be an instantaneous jump while never veering into harshness, while the trailing edge needs to offer an almost insane amount of subtle detail. Audio Physic accomplished both with a skill that was a near perfect mirror of the sound I hear in basement.

For staging I turned to an old favorite Te Deum by Arvo Pärt [ECM 1505]. Recorded in Lohjan Kirkko, the third largest stone church in Finland, the building is a simple but gorgeous, gothic masterpiece, complete with murals and a wooden belfry. Completed approximately 1480, it features high walls to reflect and extend decay with numerous internal arches to diffuse the sound. The resonant walls give the recording a warm glow, highlighting, especially, the wonderful female voices in the 28-member Estonian Philharmonic Chamber Choir. To top it off, the album includes several pictures from the recording sessions, allowing you to actually see the staging before trying to aurally decode the same information. With the Audio Physic loudspeakers the singers — moving left to right from soprano to bass — were physically spread and easy to pinpoint even as the hall effect granted a resplendent halo over the proceedings. The Tallinn Chamber Orchestra with prepared piano hard right, violins hard left and basses, cellos and violas in the center, were likewise arrayed in an easy to follow manner, helping to create the illusion of attending a live performance.

Dynamically, in my room the Scorpios showed very well, with a clean, explosive but never biting leading edge. While

not the very best that I've had in my room in this area, it was among them and acquitted itself quite well in this regard. But what sets it apart from almost every other loudspeaker I've heard in my home was spooky way it resolved decay. Sure, the attack is vital as it forms the initial impression of each instrument, but when the decay is this good it too is very convincing. On good recordings this allowed me to hear what took place at the session, while with great recordings it made me feel I was there.

And speaking of decay, my ability to hear deep into the noise floor revealed layer upon layer of information. Best of all, and as I alluded to in the Joni Mitchell section of this review, detail was never presented as dissertation on the recording session, rather it was full of blood, sweat and emotion. And this came across on every type of recording — *The Hot Five* sessions by Louis Armstrong felt every bit as real as Cowboy Junkies *Trinity Sessions*, if far worse of a recording. This allowed me to put any type of music in the system, from any era and enjoy it completely. Yet another skill that allowed this is the fact that the Scorpios were pretty agnostic when it comes to volume, sounding convincing at midnight the kids are sleeping volume as well as 2 p.m. on Saturday, let's have a party levels.

A final note on their sound, in swapping out gear to explore the limits of the Audio Physic loudspeakers I found that they worked best with neutral to very slightly warm gear. So Cardas Neutral Reference worked better than Stereovox cabling and the Blue Circle BC6 power amplifier was a better match than the Art Audio Carissa. To be sure the Scorpios sounded great with the Carissa (a favorite of mine, but a touch warm), most especially when using the built in volume attenuator, but with the Blue Circle there was just a bit more detail there, and without compromising emotion.

#### Venomous?

So, what's not to like? Obviously, very little but looking with a microscope I can find these things. First, while perfectly balanced for my room and tastes, the bass could go a bit deeper and be a bit fuller. As for the deeper part, I do not much listen to music with deep bass sound effects, though some of the electronica I enjoy occasionally ventures south of 30Hz. When it did the Scorpios, as with any ported loudspeaker, rolled off quickly. Again, for my tastes this was not an issue as my main listening room has problems with bass when it gets below 30Hz or so, but for others with different rooms and tastes I point it out here. Again, in my slightly larger than medium sized room, no problem, but if you have a large listening room and love deep bass, the

next step up the Audio Physic line would probably be a better match. And as for the fullness, depending on room setup the bass showed a very slight dip between about 50Hz and 70Hz. This was more of an issue when I set them up on the long wall, but since everything else about that setup was a touch better than with the speakers on the short wall, it was a compromise I could live with. Lastly, in a perfect loudspeaker the attack would be every bit as perfect as the decay was with the Scorpios. But to keep some kind of perspective here, the decay I heard in my room was so exceptional that this is a standard that is probably unfair.

### A New Star In The Sky

There are many things to like about the Audio Physic Scorpios, with almost nothing to detract from them. And, considering that those detractions consist of being so close to perfect at the back end of the dynamic curve that their being merely superb on the front end is a flaw, and of not being able to exceed the physics of their design and drivers and deliver sub 20Hz bass, well, it's easy to over look them. As for those good things, first, they have a very even frequency response, with a range that covers the entire acoustic instrument range. From the far left key on a Bösendorfer to the highest harmonic overtones of a piccolo, the Scorpio has you covered. Second, they image with German precision. Right, left, front and back were all rendered with life-like detail and the utmost stability regardless of volume or frequency shifts, images stayed put. And third, they have a superb command of dynamics and, according to company mandate, of the fine details that dissolve the barrier between merely reproducing and actually recreating a recording.

This added up to a loudspeaker so excellent that even at the end of my time with the Scorpios I still found myself constantly mistaking stereo sounds for real sounds. Add in a truly elegant shape and superb cabinetry, and you have a loudspeaker that sets a new, higher standard for the price range. If you are anywhere this price range, you *need* to go hear these. And even if you are planning on spending considerably more, especially if you have a medium to medium large room, go hear them too as the Scorpios are not just great for the money, they are just plain great.

## **Specifications**

Type: Full range, 3.5-way floorstanding loudspeaker

Drivers: 1-inch soft dome tweeter, two 6-inch midrange,

and four 7-inch woofers

Frequency Response: 30Hz to 33kHz

Sensitivity: 91dB/W/m

Impedance: 4 Ohms

Recommended Amplification: 25 to 200 Watts

Dimensions: 1100 x 204 x 390 (HxWxD in mm)

Warranty: 10 years parts and labor

Weight: 27 kg

Price: \$6495

# **Company Information**

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