

## Atma-Sphere S-30 Mk. II Power Amplifier

*Manufacturer:* Atma-Sphere, Inc., 160 South Wheeler, St. Paul, MN 55105 USA 651/690-2246; <http://www.atma-sphere.com>

*Price:* \$2,850

*Source:* Manufacturer Loan

*Reviewer:* Tom Lyle

Atma-Sphere, which Ralph Karsten started in 1978, is the oldest manufacturer consistently producing OTL (output transformerless) and triode amplifiers. Atma-Sphere claims to manufacture the world's first reliable and fully balanced OTL power amplifier, the first all-triode fully differential zero feedback tube amp, and the first commercial tube amp with only one stage of gain. Mr. Karsten patented a Circlotronic™ design, which he says is superior to the "normal" Futterman-type OTL. He says the old designs were unreliable, and that has given OTLs an undeservedly bad reputation. The Atma-Sphere OTL amp is said to avoid this design flaw.

Atma-Sphere explains that in each channel of the S-30 Mk. II there are two single-ended triode amps running 180 degrees out-of-phase with each other, canceling the distortion. The amp combines the power of traditional push-pull amps with the sonic benefits of single-ended triode amps because it uses no output transformers (and it is direct coupled). The result is a wide-bandwidth amp that is dynamic, neutral, and virtually free of distortion.

The disadvantage is that the S-30 Mk. II uses many tubes to achieve its 30 wpc rated output power because there are no output transformers. Its six 6SN7 tubes are still produced in Russia and the USA, and the ten 6AS7G are either made by Sovtek or Svetlana; both tubes are commonly available.

If you open the bottom plate of the amplifier and catch sight of the vast array of wires and connectors, it becomes evident that a great deal of the amplifier's cost is because it is completely hand wired. There are no circuit boards used in any form in any part of its construction. The amp weighs 32 lbs and its warranty is a two-year general coverage, one year on output tubes.

I don't think this amp is going to win any design awards for its appearance. The open chassis layout with its Wrinkletex™ black finish is certainly functional looking, and I suppose its retro-geek appearance could be eye-catching to some. But I think most will find it quite unattractive. Plus, even though I understand that locating the input jacks (a pair of unbalanced RCAs and balanced XLRs) on the front panel shortens the signal path, it is unattractive to say the least. At any rate, the

back panel isn't very crowded; it sports very sturdy output binding posts that are conveniently located, plus an IEC jack for the removable AC cord.

Because of the number of exposed tubes and the amp's unusual shape, placing this amp on a shelf of an equipment rack is unwise. I situated it next to the rack, raising it off the floor with three large vintage Audio-Technica isolation pucks under its

support legs. The 1-meter interconnects from the back panel of the preamp were barely long enough to reach to the front of the amp, so the potential purchaser of this amp would definitely be better served using longer cables.

On the front panel there is a meter to adjust each channel's bias. A slotted post turns with a screwdriver to make the adjustments, and a toggle switch to choose the channel. It was easy, and at first I made the minuscule adjustment about once a week, then every other week, then once a month. Such a small amount of variation was present during each adjustment that it

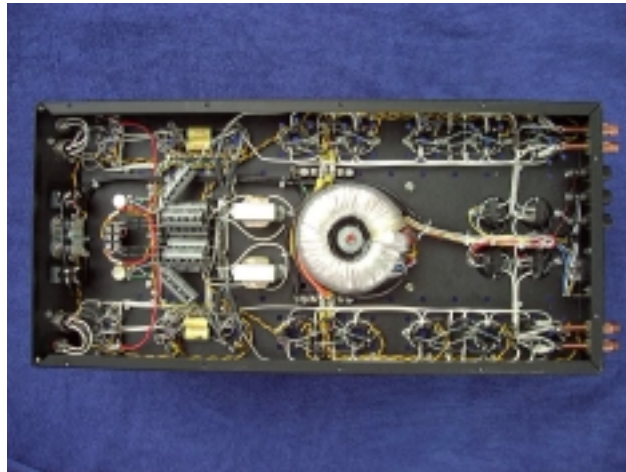


hardly seemed necessary. I suppose it's best to be precise, even though I didn't hear any sonic difference when it was microscopically out of bias

On the front panel are two toggle switches and two lights. The toggle on the left turns switches the amp into standby mode with a yellow indicator. The toggle on the right turns the power on, and has a red indicator. Atma-Sphere recommends the amp be left on standby for at least a minute before switching it to full power.

To be on the safe side, Atma-Sphere includes a few extra output tubes with each unit. I never needed them. In the nine months of testing I heard nary a pop, hum, buzz, whir, whoosh, or any other extraneous noises coming from the amp at any time during its use. And I didn't pamper it by doing such things as leaving it powered all day if I wasn't listening to it. That seemed wasteful. Of course I can't say what it will be like to live with this amp after a number of years, but if this good part of a year is any indication it suggests that this is a very reliable unit.

The S-30 Mk II has trouble driving difficult loads. Atma-Sphere suggests it shouldn't be used with speakers with an impedance lower than an 8 ohms. For the majority of the review I used the 8-ohm friendly Soliloquy 6.3s, but also tested its mettle driving the huge Sound Labs Dynastats, which even though their minimum impedance dips down to 4-ohms, their nominal impedance is 8-ohms. I also used it to drive a pair of stand-mounted PSB Mini Stratus two-way speakers, even though these speakers are rated at 4-ohms. The S-30 Mk II didn't run into any problems – although I didn't run the amp with the PSBs for very long. The amp had no problem whatsoever driving any of these speakers to realistic levels. The Soliloquys were by far the best match, but it



was fun using it with the large electrostatics even though it was operating at its limits. But again, the bulk of the time it drove the Soliloquys, which were the best possible match.

To use the S-30 Mk II with low-impedance speakers, Atma-Sphere recommends the ZERO transformer (more information about this unit can be found at the Atma-Sphere website). I didn't get to try the transformers, but it's good to know that one is less limited as to which speakers can be used with the amp.

Many assume that tube amps have a recognizable "sound." Yes, in the case of the S-30 MK II this is true – in a positive sense. Through this amp the midrange was silky smooth with unparalleled transparency. The

highs were the antithesis of grainy, and seemed to be as extended as each recording and the associated source component would allow. Plus, the bass was rock-solid, with barely any of the mid-bass hump that one might fear would emanate from a tube powered unit.

Although when compared to solid-state amps the highs of the Atma-Sphere might seem slightly rolled-off, I never thought that I was missing any musical information because of this trait. I suppose this characteristic would be exaggerated on darker-sounding speakers, but even when listening through the PSB Mini Stratus speakers, which are admittedly a little duller than neutral, the highs sounded good.

But rather focus on the *amount* of treble present, it was easier to focus on the *quality* of the highs. "Effortless" would be a good term to describe the sound of the treble as it flowed from the recording to the speakers without any euphonic embellishment nor any of the sweetening that is sometimes associated with tube power. It was the direct opposite of artificial. And like its midrange, each instrument that contained a large amount of treble energy separated itself from the others

with a dynamic distance that is an attribute of good tube sound.

The bass was full, but never bloated, and like the treble was as extended as each recording allowed. But rather than pick apart each characteristic of the amp's "sound," I came away with a feeling of this unparalleled transparency that connected me to each recording that passed through it. I know it sounds like a cliché, but at times it was as if the amp didn't exist—it just became the proverbial straight wire with gain (but *lots* of gain, belying its mere 30wpc rating).

In my review of the Soliloquy 6.3 speakers in Issue 94, I used David Bowie's "Changes" from a UK pressing of his *Honky Dory* album as an example of how startlingly realistic the speakers sounded. It was when using the Atma-Sphere S-30 MK II that these speakers outclassed every speaker that I've ever had in my listening room, and was in no doubt due to the amp.

Purists might balk at my use of a rock LP to judge a piece of equipment. Yet when every instrument in its crowded soundscape—from the mental picture of him singing into the microphone in the sound booth, to the crack of the snare, the perceptible dimensions of the studio when he played his sax, and the roar of the rest of the band—was so perfectly rendered it was difficult not to take notice of the amplifier's contribution to the excellent sound.

On the relatively recently released Mahler's *Seventh Symphony* with Claudio Abbado conducting the Berlin Phil on DG, I felt as if sonically transported to the live performance during which it was recorded. From the opening movement with its metaphorical musical rowboat building into the piece's many climaxes, the sound was breathtaking. Each instrument of the orchestra could be followed, yet there was a cohesiveness to the sound that made it very captivating. For instance, it was easy to distinguish the sound of mallets hitting the skin of the bass drums or tympanis from the resonance of the drums, yet these two sounds never seemed separate from the overall musical event. Likewise, the bows hitting the strings of the cellos at various points in the score were startlingly realistic, as was the percussion at the rear of the stage that never got lost in the

mix.

This CD also a showpiece of the Atma-Sphere's huge soundstage. When reviewing the Soliloquy speakers on their own it was difficult not to notice their soundstage prowess, yet with the Atma-Sphere it was even more evident. And as I said in the review of these speakers, it was substantial from both front-to-back and side-to-side, and each instrument within the stage occupied its own sonic space. The imaging was pinpoint.

I've I never had any qualms using solid-state amplifiers to drive my system, yet after listening to the Atma-Sphere for an extended period of time, then switching back to my "reference" Krell, I had misgivings. I could get used to the solid-state sound again after an album or two, but at first the Krell sounded sterile and harsh, especially from the upper midrange on up. Yes, it was good to have some muscle behind the system again, as the noise floor was certainly lower. And there was a certain amount of sonic authority that comes from using 250 wpc. But the highs were almost painful when compared to the S-30 MK II. Through the large Sound Labs this was much less noticeable, and I ultimately preferred the Krell, but through the Soliloquys it was *much* more evident.

If I had to make on negative comment about the Atma-Sphere, perhaps I could fault its transient response. Yes, it isn't as "quick" as solid-state amps. But I feel as though I'm just nitpicking. There wasn't one recording that was made less enjoyable because of it, and it was such a slight shortcoming that I almost didn't mention it in this review. Perhaps it was made a tad more noticeable by the slight roll-off in the amp's high frequencies, or because I was pairing it with a tubed preamplifier (an Audible Illusions Modulus 3a). But I guess if one were to use live music as a reference the transient response of this amp was closer to reality than your everyday solid-state muscle amp. This includes the Krell KAV-250a, at least through the Soliloquy speakers.

If you are looking for an amplifier to hide in a credenza to drive the front speakers of a home theater system, I suggest you look elsewhere. The Atma-Sphere is a serious amp for serious audiophiles. But be forewarned: this

amp runs hot. It drove up the temperature in my listening room during the summer months by more than just a few degrees, so it certainly needs room to breathe. Its cageless design must also be kept from the prying fingers of toddlers, and if used in a house that has small children one might consider using a different amp when they are up and about.

Nevertheless, these inconveniences are outweighed by the amp's sonic attributes. Never have I heard a tube amp sound as marvelous in my system, and makes its seemingly outrageous price seem (almost) reasonable. And don't be fooled by its ostensibly meager power rating. You'd be surprised how loud 30 watts of OTL power can sound.

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