measurements in this review that have not been seen in DAC reviews before. It was great to see our flat response out to 384kHz, and our steep filter in action. We did notice that, in the "Measurements" section, John Atkinson observed "odd-looking enharmonic products." We believe that these are a measurement artifact due to the gentle anti-aliasing filter in the Audio Precision A/D converter. It is typical in DACs without aggressive analog anti-aliasing, and was also seen in the review of our Diamond DAC in October 2012.

It is neither a concern nor a problem. We find that CDs played on our DAC sound close or equal to hi-rez. We suggest that customers seek out the "middle 50%" of their 16-bit/44.1kHz collections, looking for "dense-information" recordings like big-band jazz or classical that might sound promising during the quiet moments, but that hit a ceiling, getting harsh and unlistenable, when the whole band jumps in. Those recordings can be a revelation with the Analog DAC, showing the true dense harmonics of instruments and voices.

We like Jon [Iverson]'s comment that, "with a DAC like the MSB, you get a sense of someone hitting Play on a big reel of wide-track analog tape, after being fed by live mikes in a room." The Analog DAC was designed to be very high value, offering a generous percentage of MSB's best technologies. We are thrilled that Jon agrees that it lives up to its "Analog" name. Also, for surround discs, you can use either the HDMI output or the four individual channel-paired, channel-assigned S/PDIF outputs available for use with multiple stereo DACs.

The MSB Team

Parasound Halo P 5

Editor:

Parasound thanks Art Dudley and John Atkinson for their thorough review and painstaking measurements of our new Parasound Halo P 5 preamplifier. It was gratifying to read how much enjoyment the P 5 brought to Art without diminishing the musicality of his exquisite Shindo vacuum-tube amps and Altec A 7 Valencia speakers, whose 100dB sensitivity is excruciatingly revealing of the slightest noise in electronics. These types of delicate and sensitive audio environments in part define the sonic and engineering challenges we took on when we set out to develop the P 5.

Our vision for the Halo P 5 was ambitious. Above all, it had to be a great-sounding stereo preamp. In addition, it had to satisfy four distinct challenges:

1) There is a widespread belief that listening to music on a surround-sound system is no match for the realism of really great stereo. To create a great stereo within a 5.1- or 7.1-channel surround system, the quality of the front-channel speakers and the quality of their amplification has become a higher priority.

2) The dramatic resurgence of vinyl.

3) The growing popularity of music delivered via computers.

4) Because it is a Parasound, its value proposition had to be unique: all of the above at the highest possible quality, priced within reach and built to last.

These considerations informed our vision of the P 5 as it evolved in numerous and highly spirited product-development meetings over the course of 19 months. To realize our vision in production, we didn't take the route of companies who job out their products to the least-expensive suppliers across Asia. We assigned P 5 production to one of the three factories in Taiwan we have used for many years, one of them since 1982. The P 5 is assembled and tested alongside our acclaimed Halo JC 2, JC 3+, P 7, and CD 1.

Since Art's subjective review was done exclusively with his full-range Altecs, I will explain why Parasound describes the P 5 as a "2.1"-channel stereo preamp and why this function is unique. Preamps and integrated amps with a "home-theater bypass" for the signals from the left and right pre-out jacks of an upstream surround processor or receiver radically change system tonal balance for the stereo sources that connect to them, because there's no subwoofer channel or crossover for the left and right speakers. The left- and right-channel speakers are driven full-range in stereo, regardless of their size/crossover-frequency selections in the setup menu of the surround processor or receiver. With such a sonic disparity, the HT bypass feature is often more disruptive than useful.

However, the Halo P 5 preserves tonal balance when switching between its own stereo sources and surround by creating, entirely in analog, a subwoofer channel derived from its left and right stereo channels, a separate low-pass crossover for the sub channel, and a high-pass crossover for the left and right channels. In other words, the P 5 emulates the DSP crossover settings in the surround processor/receiver so that the tonal balance of stereo and surround are consistent. A detailed explanation is available here: www.parasound.com/pdfs/P5Manual.pdf.

The solid-state Halo P 5 is clearly not as exotic as Art Dudley's reference system or his frequent review fare, so we are especially pleased that it didn't disappoint while temporarily replacing Art's 14x-more-expensive reference preamp. What could better capture the spirit of Parasound's quest to create products that far surpass the expectations of our customers (and reviewers)? *Richard Schram, President*
Parasound Products

Zesto Audio Leto

Editor:

The most a manufacturer can hope for is a truly honest, thorough, and positive review. Well, *Stereophile* has exceeded all expectations, and our sincerest thanks to Robert J. Reina and John Atkinson for a job well done. Robert really put the Leto through its paces with an impressive variety of musical selections, and beautifully articulated the Leto's sonic performance. His comment that the design of the Leto reminded him of architect Eero Saarinen, a true icon of 20th-century design, is a real honor.

There is one area of confusion, where Robert and John seemed to disagree. Robert said, "I was astounded by the Leto's wide and linear dynamic range, from *ppp* to *fff*. The dynamic envelope of the 10 musicians performing Tomiko Kohjiba's *The Transmigration of the Soul* . . ." Later, he said, "However, with a few recordings in which the high overall level coincided with densely scored instrumental passages, I noticed that, compared with other preamps I've listened to with the same recordings, the Zesto seemed to run out of gas a bit in the loudest passages." John Atkinson's testing could not confirm this, as he comments: "I am not sure, therefore, why BJR found that the Leto 'seemed to run out of gas a bit' with highly modulated musical passages. The rise in THD . . . only rises to a level that will be audible well above the voltage required to drive Bob's amplifiers into clipping." In our experience, we have not had this issue, and therefore we would have to agree with JA. Perhaps there were other factors in the system that may have contributed to this result.

In closing, we are delighted that John Atkinson did such thorough measurements of the unit, and that Robert obviously had fun listening to music through the Leto. Zesto Audio takes great pride in bringing the enjoyment of listening to music, one audiophile at a time. Happy Listening! *George Counnas, President*
Zesto Audio