Playback Designs MPS-5

SACD/CD PLAYER

MICHAEL FREMER

Playback Designs MPS-5 SACD/CD player

DESCRIPTION Single-box, fixed-output, two-channel (upgradable to multi-channel with an outboard DAC) SACD player with remote control. Formats played: SACD, CD, CD-R, CD-RW. D/A conversion: 1-bit/5.6448MHz DSD. Analog outputs: 1 pair each RCA (unbalanced), XLR (balanced), BNC (50 ohm). Digital outputs: AES/EBU, Proprietary Playlink Data/Clock (proprietary optical links). Digital inputs: AES/EBU (XLR), S/PDIF coax, S/PDIF TosLink, USB (limited to 48kHz). RS-232 and USB control ports. Maximum analog output levels: 4V RMS at 1kHz (XLR), 2V RMS at 1kHz full level (RCA, BNC), SACD and CD. Frequency response: not specified. Channel separation: not specified. Dynamic range: 140dB. THD: not specified. Power consumption: 100W.
DIMENSIONS 17.1" (435mm) W by 3.5" (98mm) H by 16.7" (423mm) D. Weight: 29 lbs (13kg).
SERIAL NUMBER OF UNIT REVIEWED 5038.
PRICE $15,000. Approximate number of dealers: 8.
MANUFACTURER Playback Designs, 4160 SW Greenleaf Drive, Portland, OR 97221. Tel: (503) 221-0465. Web: www.playbackdesigns.com. US distributor: Blue Light Audio, 4160 SW Greenleaf Drive, Portland, OR 97221. Tel: (503) 221-0465. Web: www.bluelightaudio.com.

Playback Designs was founded less than three years ago. However, with the release in 2008 of its MPS-5 Music Playback System—a slim, full-featured SACD/CD player and DAC that costs $15,000 and is built in the US—the company has since established itself as a significant player in high-performance digital audio.

It's probably a prejudice, but in audio, we tend to associate *individual* design achievement with analog equipment (phono cartridges, loudspeakers), and anonymous group effort with digital gear. How many enthusiasts of SACD are familiar with Playback Designs' Andreas Koch?

Koch's pedigree in the field of digital audio is long and impressive: working for Studer ReVox in 1982, he designed and built the world's first fully asynchronous digital audio sample-rate converter. He then designed one of the first digital audio filter banks—512 paralleled filters were employed to reduce, in the digital domain, noise in vintage recordings.

Koch then worked for Dolby Labs, where, in 1985, he built the encoder/decoder DSP system used in Dolby's first professional digital audio product, the AC-1 encoder and decoder used for TV audio transmission. In 1986 he built the hardware for the first version of what would become Dolby Digital compressed audio (originally AC-3), the default sound format of both DVD-Video and DVD-Audio formats.

Back at Studer in 1987, Koch oversaw there the development of a 48-track, ½" digital tape-recording format and, later, a PC-based hard-disk digital recorder. Back in the US but still working for Studer, Koch managed an engineering team that developed and launched, in 1992, Dyaxis—the hard-disk–based digital audio editing system.

In 1997, now working for Sony, Koch managed an engineering team that developed Sonoma, the world's first eight-channel system for recording, mixing, and editing in DSD, and now used in the production and postproduction of most SACD releases. Koch designed the digital components in the A/D and D/A converters used in the

Sonoma, then expanded them to a single-PC, 32-channel DSD system.

Koch became an independent contract engineer in 2003, and spent the next four years designing the digital componentry, algorithms, and architecture for EMM Labs' highly regarded digital audio products, both professional and consumer. In that capacity, he invented new algorithms for sample-rate conversion, a discrete D/A converter, and new digital clock-management architecture.

On ending his relationship with EMM, Koch established Playback Designs with Blue Light Audio's Jonathan Tinn, who, aside from distributing various high-performance audio lines, was EMM's vice-president of global sales and marketing. Blue Light distributes Playback gear in the US.

A full-featured, future-proof design

The MPS-5's digital input/output section is carried in the chassis's upper, silver-finished section; the lower, black half carries a modified TEAC Esoteric SACD/CD transport at the front and the D/A and analog output circuitry at the back. The DAC has AES/EBU, S/PDIF, and TosLink inputs capable of receiving stereo linear PCM signals with resolutions/sample rates up to 24-bit/192kHz, as well as a direct USB connection for Windows-based computers, though the latter accepts sample rates up to only 48kHz with 16-bit word lengths.

Playback Designs' proprietary optical link, called Playlink, connects to other Playback gear such as the MPD-5 DAC and supports multiple audio formats as well as multichannel configurations.

The MPS-5's Auxiliary input permits unspecified "future expansion"; a second USB port supports software-based DAC updates; and an RS-232 port offers PC-based remote control. The analog outputs are balanced XLR and unbalanced RCA and BNC (50 ohm), for use with the darTZeel NHB-18NS preamplifier from Switzerland, which Blue Light Audio also distributes.

The MPS-5 is handsome, extremely well constructed, and ergonomically efficient. Its low profile—it's only 3.5" high—makes it able to fit into relatively tight spaces. The transport controls, smartly located along the top plate's front edge, are easily accessed regardless of where you place the unit.

The upper one of the MPS-5's two well-lit, generously sized front-panel screens displays the sample-rate and input status;

MEASUREMENTS

I measured the Playback Designs MPS-5 using the Audio Precision SYS2722 system (see www.ap.com and "As We See It" in the January 2008 issue, www.stereophile.com/asweseeit/108awsi), as well as, for some tests, my Audio Precision System One Dual Domain and the Miller Audio Research Jitter Analyzer. To examine the performance of the player's USB input, I drove it with the USB 2.0 output of a Shuttle PC running Windows Vista, playing WAV files using Foobar 2000 with the WASAPI plug-in to give bit-accurate playback. The MPS-5's AES/EBU data input successfully locked to datastreams with sample rates ranging from 32 to 192kHz; the TosLink input, however, appeared to be limited to a maximum of 96kHz. The USB input, which uses a Burr-Brown PCM2902 receiver chip, was limited to rates up to 48kHz and 16-bit data.

Until the MPS-5, the best error correction I had encountered was from the dCS Puccini (reviewed in December 2009, which also uses an Esoteric mechanism), which didn't suffer from glitches in its audio output until the gaps in the data spiral of the Pierre Verany Test CD reached 3mm in length. The MPS-5 exceeded that, playing through 3.5mm gaps in the data, and not suffering from occasional mutes until the gaps reached 4mm. Astounding performance!

The player's maximum output level was 4.12V from the balanced XLR jacks, and half that figure, as expected, from the unbalanced RCA and BNC outputs. The output impedance was very low and uniform with frequency from all outputs, at 22 ohms (balanced), 11 ohms (unbalanced RCA), and 45 ohms (unbalanced BNC). The last is 10% lower than the specified 50 ohms required to optimally drive the darTZeel NHB-18NS preamplifier's BNC input. With all data sources, all of the MPS-5's outputs preserved absolute polarity; *ie*, were non-inverting.

With external PCM data at 96 and 192kHz, the MPS-5's frequency response (fig.1) started rolling off in the top audio octave, reaching –0.5dB at 20kHz and –3dB at 32kHz (96kHz data), and 51kHz (192kHz data), which is more band-limited than other SACD players. Peculiarly, while the channel balance was perfect with high-sample-rate data, with CD playback, the right channel (fig.1, gray trace) was 0.2dB below the left (green). Playing back the "provisional" Sony test SACD, the player's output was down by the same 0.5dB at 20kHz, but the ultrasonic response rolled off at the same rate it had done with 96kHz PCM, reaching –3dB at 32kHz and –13.4dB at 50kHz (fig.2). Playing back a preem-

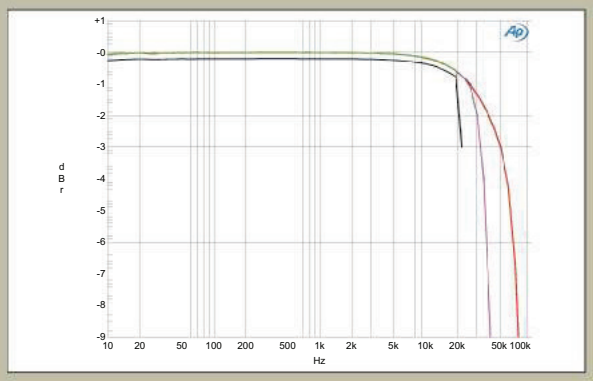

Fig.1 Playback Designs MPS-5, frequency response at –12dBFS into 100k ohms at: 192kHz sample rate (left channel cyan, right magenta), 96kHz (left blue, right red), 44.1kHz (left green, right gray). (1dB/vertical div.)

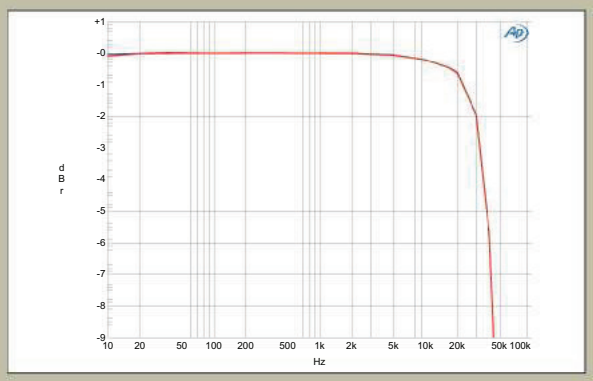

Fig.2 Playback Designs MPS-5, SACD frequency response at –3dBFS into 100k ohms (left channel blue, right red). (1dB/vertical div.)

the lower displays the disc track and time information. However, neither displays the track text information that is included on SACDs. The backlit remote control of milled aluminum is equally ergonomic. From it you can select among the various inputs, eject a disc, mute the output, invert absolute phase, dim the displays, switch between a hybrid disc's SACD and CD layers (after first pressing Stop), switch from two- to multichannel output, change the transport's time-function front-panel readouts, repeat a track or the entire disc, and directly select individual tracks.

Multichannel SACD playback is easily accomplished by adding the MPD-5 DAC, which is physically identical other than lacking the transport mechanism. In four-channel mode, the MPS-5 mixes the decoded center channel of a five-channel disc into the L/R analog front-channel outputs; the surround tracks exit digitally via the Playlink optical jack to the MPD-5. The MPS-5 can process up to six channels by outputting up to four additional channels of digital information via the Playlink.

While fitted with a clock output, the MPS-5 lacks a clock input—according to the instruction manual, the MPS-5 has an "elaborate and sophisticated" clock generator that doesn't need to be locked to an external source. Incoming digital data are completely shielded from the internal clock circuitry through various buffer stages and unique control algorithms that "remove any incoming jitter." Playback claims its DAC "performs equally well with jittery sources as with higher quality ones."

Inside

Given Andreas Koch's long and varied background in digital design, you'd imagine that few off-the-shelf parts would be found in the MPS-5, and you'd be correct. Field-Programmable Gate Arrays (FPGAs) programmed with proprietary algorithms replace the more commonly used OEM DSP chips and DACs. Instead of op-amp chips (not that there's anything *necessarily* wrong with op-amps), the MPS-5 has discrete analog output components and ceramic circuit boards. According to Playback, the MPS-5 doesn't rely on "3rd party vendors for any solutions."

All digital input data are converted to *double* SACD's sampling rate of 5.6448MHz. More significant is the claim that another Koch-developed

measurements, *continued*

phasized CD, the MPS-5's response was the same as with normal data (not shown), suggesting negligible deemphasis error. Channel separation was excellent, at >110dB below 1kHz, decreasing to a still-good 85dB at 50kHz (not shown).

As usual, for reasons of consistency with *Stereophile*'s library of digital-product measurements, which now goes back more than 20 years, my first test for resolution is to analyze the spectrum of the output signal of the device under test while it plays data representing a dithered 1kHz tone at –90dBFS, using a swept ⅓-octave bandpass filter. The result with 16-bit CD data is shown as the top pair of traces in fig.3. Usually, other than the peak at 1kHz touching the –90dB line, these traces show only the recorded dither noise. The Playback player, however, did appear to be contributing some noise, and to a greater extent in the left channel (solid trace) than in the right (dashed). There was also a trace of 120Hz hum apparent in the left channel, though at –113dB, this will not be audible.

Increasing the bit depth to 24 or playing back DSD data usually drops the noise floor low enough to reveal the player's or processor's own noise floor. (For an example of superb performance with this test, see the measurements accompanying the review of the Bryston BDA-1 processor elsewhere in this issue.) But to my surprise, given the Playback Designs player's pedigree, both 24-bit PCM and DSD data gave a noise floor that was only 3dB lower than with CD data (fig.3, bottom two pairs of traces). And again, the left channel was noisier than the right—so much so that the

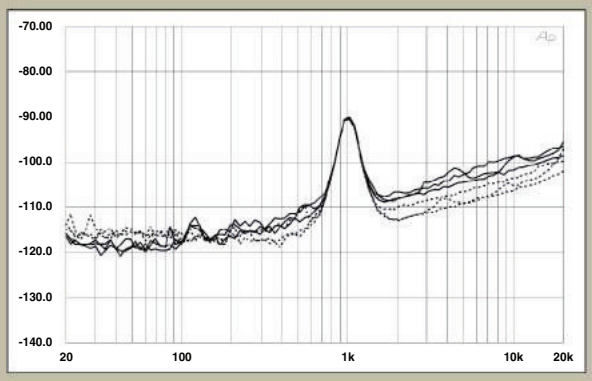

Fig.3 Playback Designs MPS-5, ⅓-octave spectrum with noise and spuriae of dithered 1kHz tone at –90dBFS with: 16-bit data (top), 24-bit data (middle at 2kHz), DSD data (top trace at 20kHz). (Right channel dashed.)

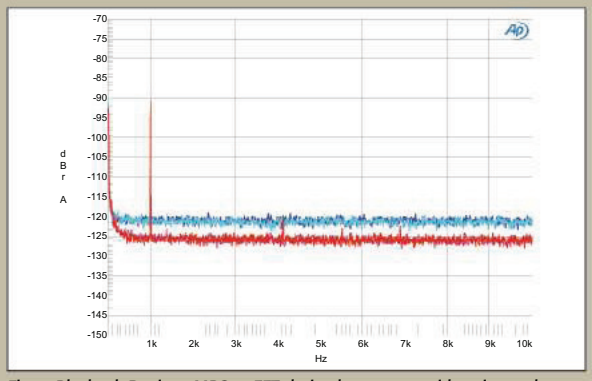

Fig.4 Playback Designs MPS-5, FFT-derived spectrum with noise and spuriae of dithered 1kHz tone at –90dBFS with: 16-bit data (left channel cyan, right magenta), 24-bit data (left blue, right red).

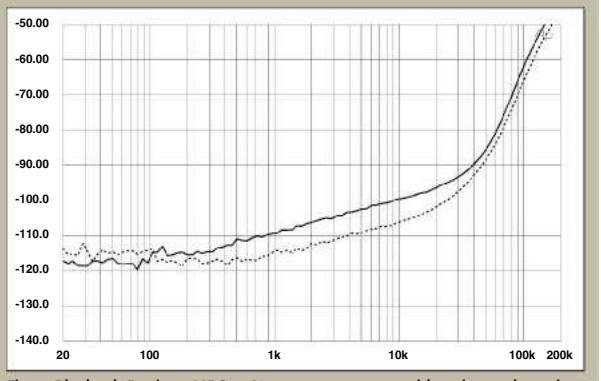

Fig.5 Playback Designs MPS-5, ⅓-octave spectrum with noise and spuriae of –1LSB with 16-bit CD data (right channel dashed).

technology, Playback Designs Frequency Arrival System (PDFAS), "*completely eliminates*" jitter by removing it altogether from the audio signal. PDFAS is claimed to permit the elimination of traditional jitter-minimizing phase-locked loops (PLLs) because, regardless of source—MP3 player, PC music server, whatever—Playback says that PDFAS results in *jitter-free* connection.

The goal, of course, is to produce a signal that's as close as possible to *analog*—and we *like* analog.

Use

Unlike the far more complex, more expensive, multi-component dCS Scarlatti SACD player I reviewed in August 2009, using the MPS-5 was so simple that even a turntable geek can do it without consulting the manual. The third letter in the MPS-5's name could well stand for *simplicity*.

Select Disc on the remote control and the MPS-5's lower screen lights up and its transport awakes. You can remotely open the disc tray to insert a disc, or use the transport controls on the top plate. The upsampling to twice DSD resolution is automatic, regardless of the input data rate. But don't lose that remote—without it, you have no way of selecting among inputs.

The Esoteric transport was fast and responsive, quickly and silently executing track-jump commands. The ease with which its digital inputs can be selected makes switching among them trouble-free, especially compared to the dCS Scarlatti's more complicated protocol. Switch from the transport to one of the digital inputs and it powers down and its screen goes dark—a nice touch that may enhance the MPS-5's audible performance.

The SACD/CD transport plus the multiple DAC inputs allowed the MPS-5 to function as a convenient, pushbutton digital hub for my system's full array of digital sources. It also freed up a few analog preamp inputs. The digital sources I used for this review included a Sooloos music server (coax), an Alesis Masterlink hard-disk recorder (AES/EBU), and a MacBook Pro laptop (TosLink via the Mac's combination optical-digital/analog headphone mini-jack output).

The only disappointment was the Playback's USB port, which is limited to 44.1kHz and 48kHz, 16-bit data.

measurements, *continued*

left channel with DSD and 24-bit data was noisier than the right channel with CD data. Repeating the spectral analysis using an FFT technique confirmed the MPS-5's disappointing performance (fig.4), with the noise almost high enough in level to obscure a dithered tone at –120dBFS. In addition, the noise floor for SACD playback was disturbed by some low-level enharmonic spikes (not shown).

Was the analysis being corrupted by ultrasonic noise being folded back into the audioband? Apparently not, as playing a CD track with a –1LSB DC signal gave the ⅓-octave spectral analysis shown in fig.5. Again, the left channel is noisier than the right, and while the ultrasonic noise from the DSD encoder's noiseshaping gives a noise floor that rises above the audioband, this is not extreme (fig.5; note that the rise in noise is exaggerated by higher-frequency components leaking past the bandpass filter's skirts). Looking at the output signal on an oscilloscope seemed to reveal both steady-state high-frequency noise and random bursts of higher-frequency noise. So while checking linearity error with spot tones gave excellent results down to –105dBFS or so, the result of my usual continuous sweep, which takes about 20 seconds to complete, was spoiled by bursts of noise (not shown).

The high-frequency noise obscures the shape of an undithered 16-bit PCM sinewave at –90.31dBFS (fig.6). You can hardly make out the three DC levels that you can see in the measurements sidebar for the Bryston BDA-1. And, as suggested by figs. 3 and 4, the picture is only a little better with DSD data (fig.7).

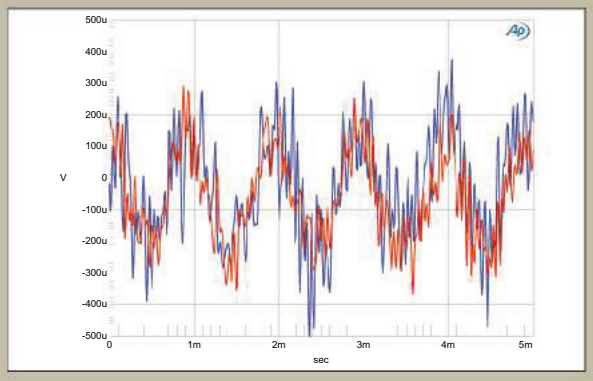

Fig.7 Playback Designs MPS-5, waveform of dithered 1kHz sinewave at –90dBFS, DSD data (left channel blue, right red).

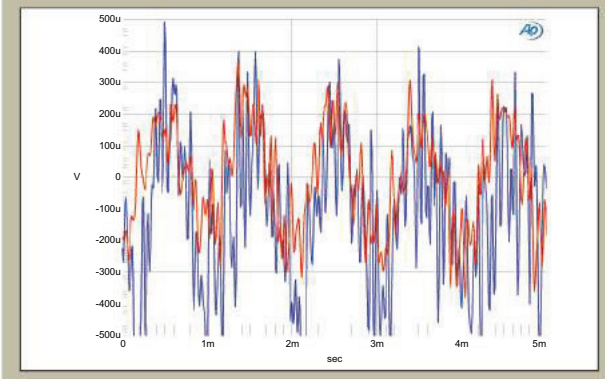

Fig.6 Playback Designs MPS-5, waveform of undithered 1kHz sinewave at –90.31dBFS, 16-bit data (left channel blue, right red).

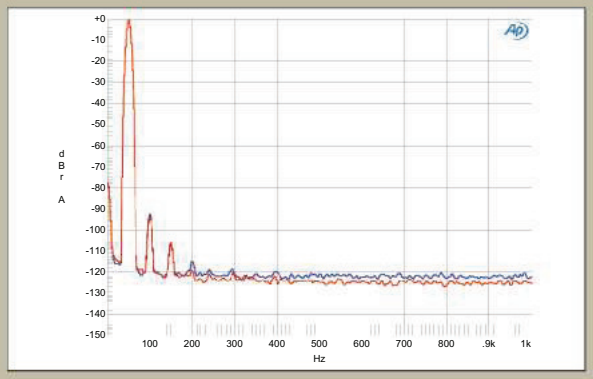

Fig.8 Playback Designs MPS-5, spectrum of 50Hz sinewave at 0dBFS into 600 ohms, 24-bit data (left channel blue, right red; linear frequency scale).

In every respect, the MPS-5 was a pleasure to use. Switching among files sourced from "Red Book" CDs and 24-bit/96kHz downloads stored on the Sooloos was seamless, the MPS-5 displaying the source signal's sampling rate and bit depth on its upper screen. (When I reviewed the dCS Scarlatti, the Sooloos was compatible only with 16/44.1 CD. Now it accepts 24/96 files—see Jon Iverson's Follow-Up review in October 2009.)

Breaking in

The dCS Scarlatti's flexibility allows the user to choose a preferred upconversion of sample rate or none at all. For the Scarlatti at least, 16-bit/44.1kHz converted to 24/176.4 seemed to produce the greatest transparency and apparent improvement in resolution, while DSD resulted in a sound somewhat lusher but cloudier, and less detailed and three-dimensional.

Between the departure of the dCS and the arrival of the Playback Designs, I paired the Sooloos with the DAC section of the Musical Fidelity DM25 CD player. Not surprisingly, given the Scarlatti's stellar sound, this was a big disappointment. The sound was warmed-over, smooth, and somewhat distant: inoffensive, but bland and uninvolving.

The MPS-5 doesn't let you choose the upsampling rate: You're locked into double DSD. Would that produce an even more lush, less detailed sound than the dCS at DSD resolution? That was what I expected, and, right out of the box, that was generally how the MPS-5 sounded—not at all "cold" or crisp, as electronics that haven't had a chance to break in usually sound. Instead, the top octaves were warm, stuffy, and closed-in. A recessed, edgy midrange and a lack of transparency produced an exaggerated attack that made well-recorded pianos sound simultaneously muffled and clangy. Voices were robbed of fleshy textures, and the bottom, though deep and powerful, was uncertain.

But that makes the MPS-5's out-of-the-box performance sound worse than it actually was; many fine qualities were also immediately audible. The sound had a pleasing immediacy, a physical grip, and a dimensional coherence that seemed to be blocked just behind an occluded sonic front. This wasn't all that enticing at first, but the sound *was* free of grain and other artifacts once precludes an unreserved recommendation. **—John Atkinson**

The MPS-5 had low levels of harmonic distortion, even into the demanding 600 ohm load (fig.8), and only the subjectively benign second and third harmonics rise significantly above the level of background noise. (This graph was plotted using 24-bit PCM data; again the level of background noise is closer to 16-bit performance. DSD data didn't give a result that was appreciably better.) Intermodulation distortion was also very low, with all the distortion and aliasing products resulting from an equal mix of 19 and 20kHz tones at or below –94dB, or 0.002% (fig.9).

Finally, playing the Miller-Dunn diagnostic jitter test tone from a CD, the MPS-5 gave a very low level of word-clock jitter, the Miller Analyzer indicating just 123 picoseconds peak–peak, which is actually at the analyzer's resolution limit. When I fed the MPS-5 external 16-bit data from my PC via 15' of TosLink—very much a worst-case situation—the jitter rose to a still quite low 457ps, primarily due to a pair of sidebands at the data-related frequencies of ±229Hz. With the MPS-5 fed the same data via USB, the measured jitter level was unmeasurable with the Miller Analyzer. Though data-related sidebands can be seen in the right channel (fig.10), these are at the residual level of the squarewave harmonics in the test signal.

Early on in the testing of the Playback Designs MPS-5, worried that there was something wrong with our review sample, I took the cover off to check that all the ribbon cables were seated properly (they were) and that there was nothing obviously adrift (there wasn't). So while I was impressed by the player's standard of construction, I can't say the same about its technical performance. The relatively high level of background noise limits the MPS-5's resolution with SACD and external 24-bit data to not much better than 16-bit CD. I am puzzled, therefore, why Michael Fremer liked the sound of this player so much. Perhaps his description of its sound being "analog-like" is a clue—for reasons that are not fully understood, a signal with very-low-level random noise added is sometimes preferred, on that it is more intelligible, to the same signal without such noise.[1] But I feel that the MPS-5's measured performance

1 See, for example, "Stochastic Resonance in Acoustic Emission," M. Friesel, *Journal of Testing and Evaluation*, 1999, and "The Benefits of Background Noise," Moss, Wiesenfeld, *Scientific American*, August 1995.

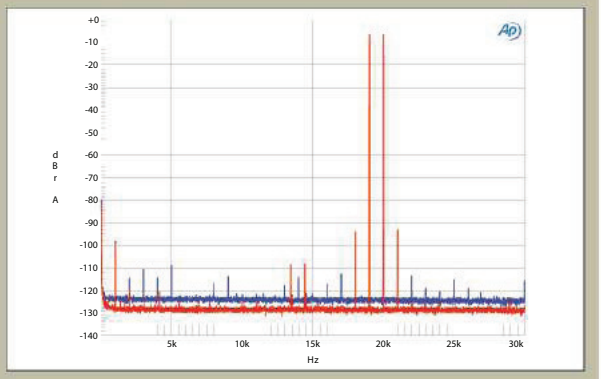

Fig.9 Playback Designs MPS-5, HF intermodulation spectrum, 19+20kHz at 0dBFS peak into 600 ohms, 24-bit data (left channel blue, right red; linear frequency scale).

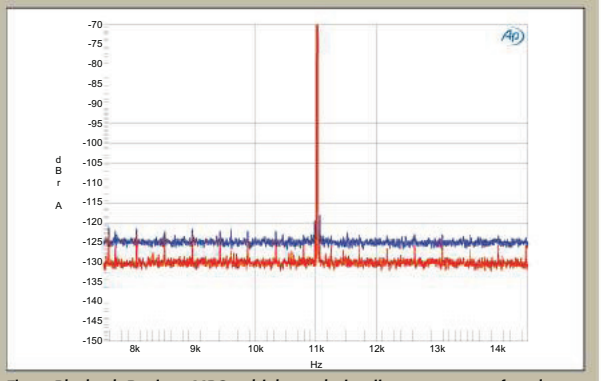

Fig.10 Playback Designs MPS-5, high-resolution jitter spectrum of analog output signal, 11.025kHz at –6dBFS, sampled at 44.1kHz with LSB toggled at 229Hz, 16-bit USB data. Center frequency of trace, 11.025kHz; frequency range, ±3.5kHz (left channel blue, right red).

labeled "digititis," and which many listeners chose to ignore, so in love were they with the absence of the artifacts of *vinyl* playback.

As the MPS-5 continued to break in over the next few months, I kept returning to, among other benchmarks, *Piano Music in a Church*, Endre Hegedus's collection of works for solo piano by Chopin and Debussy—an "Almost Analog Digital" recording made in an Irish church (Tone-Pearls TPRCD1; www.tonepearls.com). During that time the recording went from sounding somewhat muffled and spatially confused, with the piano's lower registers blending with the reverberation, to thin and brittle in the midrange (which accentuated the reverb), to finally opening up in the mids and becoming far better organized on bottom. The sense of space grew in confidence and filled out, almost like a balloon finally being inflated with enough air to take shape.

Curious friends who knew I had the MPS-5 in for review kept asking how it sounded. I'm not supposed to talk about products during the review process, but I'm also not supposed to be an asshole. So, to my friends, I would drop the occasional hint: the MPS-5 sounded "closed-in but promising," or "disorganized but promising," or "brittle and thin but promising."

"Would you make up your *mind*?" one finally burst out. "Is it closed-in, or brittle and thin?"

"It's both!"

The point is, if you get a chance to listen to the MPS-5, to avoid getting the wrong impression, be sure to find out how many hours it's logged playing music. And if you buy one, be patient—very. (Note: I've just looked in the back of the instruction manual for player's specifications, finally needing them to complete the writing of this review, only to find a five-position timeline of sonic break-in that eerily mirrors what I've just described.)

But when the sound had stabilized . . .

With sonic consistency came a masterfully neutral top-to-bottom tonal balance that, regardless of format or resolution, combined a lush yet transparent midrange with deep, powerful bass below and, above, open, naturally airy highs that remained free of grain and digititis. The picture was spacious, remarkably delicate, and three-dimensional, particularly from SACDs. In fact, the Playback's playback of SACDs was, if not identical to the dCS Scarlatti's, easily in the same league for roughly one-fifth the price. A side-by-side comparison would have been instructive, but that wasn't possible, unfortunately.

Listening to the RCA Living Stereo and Rolling Stones SACDs I'd used for the dCS review produced the same artifact-free, viscerally exciting performances—sounds that rivaled but were sure not identical to the vinyl versions.

IF YOU GET A CHANCE TO LISTEN TO THE MPS-5, **TO AVOID GETTING THE WRONG IMPRESSION,** BE SURE TO FIND OUT HOW MANY HOURS IT'S LOGGED PLAYING MUSIC.

While it's impossible to know for sure, I think the MPS-5's SACD playback is even more transparent and spacious than the Scarlatti's. Kenneth E. Wilkinson's recording of Artur Rubinstein, Stanislaw Skrowaczewski, and the New Symphony Orchestra performing Chopin's Piano Concertos 1 and 2 (SACD/CD, RCA Red Seal 67902-2; originally LP, RCA Living Stereo LSC-2575) sounded more spacious, and the piano seemed more solid and better focused than I remembered. The image of the piano projected farther forward in space in front of the orchestra through both the Vandersteen 7 (currently under review) and my Wilson Audio MAXX 3 speakers.

After I'd turned in my review of the dCS Scarlatti, Reference Recordings sent along a new SACD transfer of one of its sonic spectaculars, Eiji Oue and the Minnesota Orchestra's *Exotic Dances from the Opera* (RR-71 SACD), transferred from the original analog tapes. This one should be issued on vinyl for sure, but for now the SACD will have to do. It was easy to compare the original CD with the SACD, as well as with the 24/96 file (downloaded from HDtracks.com). Debate may rage between the partisans of PCM and SACD, but assuming engineer Keith O. Johnson accomplished all three transfers with the same playback deck and electronics and without messing with equalization, the clear winner—at least through the Playback Designs MPS-5—was the SACD. Its transparency, harmonic resolution, image specificity and delicacy, bass extension—every parameter you can think of—were superior to either PCM format, but especially compared to the CD, where the strings took

ASSOCIATED EQUIPMENT

ANALOG SOURCES Continuum Audio Labs Caliburn turntable, Continuum Cobra tonearm, Castellon stand; Graham Phantom II tonearm; Oracle Delphi Mk.VI turntable, Oracle/SME tonearm; Lyra Titan *i*, Transfiguration Orpheus, Ortofon A90 cartridges.
DIGITAL SOURCES Camelot Round Table DVD player with Anagram Technologies D/A converter section, BPT-modified Alesis Masterlink hard-disk recorder, Sooloos music server, MacBook Pro laptop computer.
PREAMPLIFICATION Manley Steelhead, Einstein Turntable's Choice, Sutherland The Hubble, Silicon Arts Design Concert Fidelity SPA-4B phono preamplifiers; darTZeel NHB-18NS preamplifier.
POWER AMPLIFIER Musical Fidelity Titan.
LOUDSPEAKERS Wilson Audio Specialties MAXX 3, Vandersteen 7.
CABLES Phono: Chris Sommovigo Design (proprietary for Continuum Audio Labs components), Hovland MG2 Music Groove, Esoteric 8N. Interconnect: TARA Labs Zero, Kubala-Sosna Emotion. Speaker: TARA Labs Omega Gold. AC: TARA Labs The One Cobalt, Shunyata Research King Cobra Helix CX.
ACCESSORIES Finite Elemente Pagode, HRS SXR equipment stands; Symposium Rollerblocks; Audiodharma Cable Cooker; Shunyata Research V-Ray II Reference, TARA Labs Power Screen power conditioners; Furutech DeMag & deStat LP treatments; Oyaide AC wall box & receptacles; ASC Tube Traps, RPG BAD & Abffusor panels; VPI HW-17F, Loricraft PRC4 Deluxe, Spin Clean record-cleaning machines.

—Michael Fremer

on a slight stridency, images were flattened, and opacity trumped transparency.

I've been enjoying Alan Silverman's superb remastering of that neglected Kinks masterpiece, *Muswell Hillbillies* (SACD/CD, Koch VEL SC 79801), since it was first released. While it was equally transparent and detailed via the Scarlatti, it had more punch and rhythmic drive as decoded by the MPS-5, though some might find the Playback's overall sound somewhat too forward and brash compared to the Scarlatti's lusher, burnished one. This is a case in which, in every way, the SACD *and* CD layers absolutely destroy RCA's original Dynaflex LP. But listen to the two digital layers and it's easy to hear that the CD is spatially flat, harmonically truncated, and just plain mechanical-sounding by comparison. And those crunchy, tinny cymbals? Feh! But that's not the fault of the player. Even double-DSD processing can't restore what was never on the master tape to begin with.

As an SACD player, the MPS-5 is, or is very close to, the best I've heard, put there by its dynamic capabilities, resolution of transients and detail, image specificity, three-dimensionality, bottom-end extension, and overall punch and immediacy. The Cary CD 306 SACD ($8000, which John Atkinson reviewed in November 2008) sounds exciting and is a reasonably good value, but it's also somewhat lean and forward. The Marantz SA-11S2 ($3400, which I reviewed in February 2009) sounds warm and pleasant and is impressively built, but it failed to engage me the way the Cary could. The dCS Scarlatti ($79,999) is in a class by itself as an ambitious stack of components, but the Playback Designs MPS-5 plays on the same sonic field for less than half as much, even if its sound was somewhat cooler and more analytical.

Red Book Sound

How did the MPS-5 do as a CD player and DAC? Though it converts 16/44.1 PCM to DSD's 1-bit/5.6448MHz, its "Red Book" sound was nothing like the Scarlatti's. In my August 2009 review of the latter I wrote: "The [upconverted to] DSD sounded smoother for sure, but the 16/44.1 playback had better focus, and on most discs produced greater image solidity and three-dimensionality.

Digital I/O along the top; analog outputs along the bottom.

The better a CD sounded, the better it sounded 'straight up' [*ie*, no upsampling]—though I ended up preferring 24/176 upsampling, which combined excellent image focus and spatiality with the *sensation* of hearing more information. The harder-edged a disc's sound, the better it sounded upsampled to DSD."

The Playback Designs offers no "custom tailoring" with filters, but its upsampling to twice DSD didn't soften the sound at all. Instead, it produced a sound very similar, as I remember it, to the dCS Scarlatti set to upsample to 24/176 PCM: very clean, tightly focused, three-dimensional (for CD), rhythmically taut, and *fast*—reminiscent of what Naim components do so well.

IF YOU HAVE A LARGE COLLECTION OF SACDS, YOU'LL FIND THE MPS-5 **AMONG THE BEST-SOUNDING PLAYERS AVAILABLE TODAY.**

If the recording was lean or cold, that's how it sounded. And if the recording was warm, it sounded warm. For some listeners, and depending on the associated gear, the MPS-5's version of "warm" might not be warm enough, because its overall balance is, like that of Naim gear, on the taut, transparent, and (some might say) cool side. But the Playback's uncommonly high level of rhythmic organization and taut, depth-plumbing bass is a worthwhile tradeoff for the slightly miserly sustain that precedes a long decay extending to infinity. This player's skills at physical and rhythmic organization were, in my experience, second to none.

A DAC I have here, based on the Anagram Technologies upsampling to 24/192 PCM circuitry,[1] produced bass that was somewhat softer than and not as taut as the MPS-5's, but the additional texture created by a more generous sustain did, to some degree, make up for it. Still, when you hear the Playback Designs rip through a complex rhythmic passage and lay it out with an iron-fisted grip, you'll be impressed.

Conclusions

I'm not suggesting that a $15,000 SACD player is inexpensive, but compared to some far more costly products that have passed this way, including the $80,000 dCS Scarlatti and the $28,150 Naim CD555, the compact, well-constructed Playback Designs MPS-5 offers impressive sound and build quality, and, with its multiple inputs, great versatility that includes upgradeability to multichannel. And its software-driven DSP means that performance upgrades are only a download away. You can even start with the DAC and upgrade it with the transport mechanism later, should you choose. The one disappointment was the USB input's limitations of a maximum sample rate of 48kHz.

If you have a large collection of SACDs, you'll find the MPS-5 among the best-sounding players available today, combining great transparency, impressive delicacy and resolution of low-level detail, and, when called for, authoritative dynamic slam and depth-charge–like bass.

The MPS-5 is also an equally compelling- sounding CD player. I suggest you listen to your favorite CDs and hi-rez PCM files and make up your own mind. I found the Playback DAC's high-frequency cleanness, silent backdrops, and organizational skills impressive, and its overall sound rock-solid and very well controlled—and for sure better than the dCS Scarlatti's upconversion of PCM to DSD.

So analog-like was the MPS-5's decoding of SACDs and hi-rez PCM files that it has joined the very short list of players that make me want to sit down, undistracted by other activities, and actually *listen* to digital recordings—as long as I don't go back to the turntable!

1 The DAC is actually a Camelot Technologies Round Table DVD player I bought some years ago but that had become a boat anchor since the advent of Blu-ray. I couldn't sell it on Audiogon, so I contacted Camelot's Mel Schilling about adding a digital input so I could use the Round Table as a DAC. Schilling complied, and the Round Table now decodes 24/96 and probably higher. It sounds very good. Schilling now offers the service to Round Table owners as an upgrade for $325 plus shipping.