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MICHAEL FREMER

Gryphon Audio Designs Commander

LINE PREAMPLIFIER

Are well-heeled audiophiles ready for a knob-free future? Gryphon Audio Designs thinks so. In contrast to Gryphon's volume knob-dominated Pandora preamplifier, the Danish company's new Commander offers nothing on its bold front panel to grab or turn.

Instead, there's a large, extra-thick, triangular glass protuberance that extends dramatically below the chassis's vertical dimension. That's where you'll find an "on/off" button, the main unit's only physical switch.

A 4.3" TFT capacitive touch screen incorporated within that triangular glass panel controls all this preamp's functionality. The pushbutton remote control duplicates many but not all operations. More about that later.

The Commander is an unusually large, heavy, two-chassis design featuring an 84lb power-supply chassis and a 67lb signal/control chassis. Each chassis weighs more than many powerful power amplifiers and measures approximately 18" wide × 9" tall × 17" deep. (The control chassis is slightly deeper.)

All this mass and real estate just to provide some attenuation/gain/buffering and to swap among its six inputs? Yes.

Consider the power supply. Within its massive aluminum chassis reside four custom-made 36VA toroidal transformers, two per channel, plus a large power-supply capacitor bank for each channel. Two of the four transformers (one per channel) are reserved for upcoming Gryphon source components; the well-considered thought is that if you're in on the Commander, you'll be in on the company's source components, too, and this way you won't need to purchase another separate power supply. Much of the signal-processing chassis weight goes to damping and resonance control.

The not-quite-40-year-old company has retained much of what went into the Pandora preamp, including its dual-mono layout—here in a single chassis, there in two separate chassis (four all together, including the Pandora's two outboard power supplies)—and its class-A input buffer consisting of just two transistors and a single resistor, implemented with zero global feedback. That, the company claims, produces sound that's "exceptionally transparent,

fast, natural and open." Of course, that's what they all say!

Gryphon claims the Commander improves upon the Pandora's widely recognized exceptional performance (I've not heard it), in part due to a new voltage reference, used in connection with the analog series regulators that supply the amplifier stages, that's said to be 50 times lower in noise. A pair of fully discrete, linear power supplies serve each channel's analog circuit, while a third feeds the digital control system; each connects to the control unit with its own umbilical. Gryphon avers "absolute" mechanical separation and electrical isolation between analog and digital sections.

The Commander's chassis incorporates a resonance-reducing, constrained-layer-damped bottom plate that sandwiches layers of Kerrock (a solid surface acrylic), bitumen, and steel. The amplifier and analog power supply circuit boards float on specially designed isolators, providing for that sensitive circuitry a "virtually vibration-free environment"—so says the accompanying press blurb. All this mass rests on four Gryphon "Atlas Spikes," which the company says "move resonance control even closer to theoretical perfection."

Experience has made me a believer in the sonic effects of vibrational energy on electronics—including solid state electronics. The spikes are also necessary to prevent the base of that front-panel triangle from becoming a fifth contact point.

Heatsink fin arrays on both the power supply and signal-processing chassis accentuate the dual-mono architecture and add a pleasing visual accent. Both arrays are topped by three-dimensional Gryphon insignias—dragons—which many will appreciate. Those who find them Harry Potter hokey can easily hide them under shelving.

Presentation, installation, and setup

Before leaving for Georgia to participate in a major customer installation, Gryphon CEO Jakob Odgaard and sales director Rune Skov deposited in my garage a pair of heavy pressboard crates. Rather than wait for their return, I rolled the two crates into my room and unboxed them easily, thanks to innovative packaging that allows you to unlock the side panels and remove the compo-

SPECIFICATIONS

Description Stereo line-level preamplifier with remote control and relay-selected resistor arrays for level control. Inputs: 4 pairs balanced (XLR), 2 pairs single-ended (RCA). Outputs: 2 pairs balanced (XLR) plus one pair each single-ended (RCA) Preamp and Tape. Input impedance: 18k ohms balanced, 12k ohms single-ended. Output

impedance: 7 ohms. Gain: 18dB. Frequency response: 0.1Hz–1.5MHz, –3dB. THD+N: 0.003% (balanced output). Total power supply capacity: 2 × 90,000µF. Power consumption: <0.5W (standby), 90W (idle).

Dimensions Audio/control unit: 18.8" (480mm) W × 9.3" (236mm) H × 17.9" (455mm) D. Weight: 67.2lb (30.5kg).

Power supply: 18.8" (480mm) W × 9.29" (260mm) H × 17.3" (440mm) D. Weight: 84.2lb (38.2kg).

Finish Black.

Serial number of units reviewed 5600-000 (preamp), 5610-000 (power supply). Designed and manufactured in Denmark.

Price \$63,000. Warranty: 3

years parts and labor.

Manufacturer Gryphon Audio Designs ApS, Industrivej 10B, DK 8600 Ry, Denmark. Tel: (+45) 86891200. Web: gryphon-audio.com. US distribution: Gryphon Audio N.A. Tel: (201) 690-9006. Email: anthony@gryphon-audio.dk.



This system is as free of solid state detritus as I've ever heard from silicon, and it is not achieved by smoothing or softening to cover up the flaws.

nents that way rather than excavating precious heavy metal vertically from cardboard boxes or crates.

Not to worry: If you purchase this \$63,000 preamplifier, your dealer will attend to the installation—so I'll skip the rest of the description of what it took to hoist the control unit onto the HRS SXR rack shelf other than to write that Gryphon has devised a unique methodology to accomplish it without scratching or marring surfaces. I'll aver that for this much money, buyers deserve a top-quality, out-of-the-box presentation, and Gryphon delivers it. No need to elaborate further. I left the power supply on the floor—or rather, on a Symposium Acoustics platform that sat on the floor.

Rear panel facilities include four pairs of balanced, gold-plated Neutrik XLR inputs and two pairs of Gryphon's own Teflon-insulated RCA inputs, one of them labeled "(Tape)"; two pairs of balanced (XLR) outputs and one single-ended output pair—plus another stereo output pair labeled "TAPE." (In other words, there's a tape loop.) There's a USB jack for firmware updates, umbilical connectors for the three power-supply connections, 12V triggers in and out, and a pair of "Green Bias" connectors; when used with

Gryphon amplifiers, Green Bias allows automatic switching among various levels of class-A bias. The rear panel layout is neatly configured with well-spaced jacks, aided by the additional real estate afforded by the generously sized chassis.

The Commander's insides include, in addition to the aforementioned two transistors per channel, class-A, discrete input buffers, an 85-step, microprocessor-controlled volume control incorporating Charcroft Z-Foil Audio ultraprecision-series resistors and ultralow-capacitance relays. Also inside is fully discrete, balanced, dual-differential, class-A line-stage circuitry followed by a symmetrical, class-A current-amplification stage, all on four-layer PCBs with copper traces up to 70µm thick, plus DC-servo coupling and premium Mundorf MCap ZN-foil capacitors used for local power supply decoupling—all said to result in improved transparency and spatiality. The internal layout is said to have been optimized to minimize wiring.

I ran the Commander "balanced out" to the darTZeel NHB 468 monoblocks using TARA Labs Zero Interconnects. Configuring the preamp is straightforward, especially if you've ever set up

a home theater receiver. Touch the glass panel's virtual "menu" button and select among 10 options including input-level matching, input naming, AV-input bypass (for home theater use), display intensity, and a few other settings of lesser importance, at least for the purposes of this review. Adjusting L-R balance requires you to go into the menu system and hit "Volume"; you'll then see a virtual slider. You can't adjust balance from your listening position, which turned out to be the Commander's most significant less-than-ideal feature. I suppose that, for \$63,000, I'd also like to see a polarity inversion switch, assuming it wouldn't compromise sonic performance.

The TFT screen incorporates a proximity sensor that automatically switches format depending upon where you are standing. When you're more than a few feet away, the screen indicates the volume and selected input in large numbers and letters. Hit "Mute," and an "X" covers the volume numbers.

Approach the screen, and it changes to display smaller characters and more detail, showing the input lineup vertically along the screen's left side, the volume number and "up"/"down" icon on the screen's right side, and "Mute," "Monitor," and "Menu" in the center. Lightly pressing any of these virtual buttons produces the desired change in volume, input, etc. Which means that, when you're seated in your listening position, you see only the chosen input and not a full input listing, so until you've got them

"Vital" was the one-word description that came to mind.

memorized by number (which won't take long), you'll be toggling through to find your choice. Again, not a big deal, but I'd bet on firmware version 2 they'll give you the option to change the screen view and perhaps also let you adjust balance from your seat.

The remote control is a nicely machined, heavy-in-the-hand device with an angled lower extremity aimed to make it more comfortable to hold (for right-handers at least) and a rubberized bottom pad to prevent furniture scratches. The logical, uncluttered layout obviates the need for backlighting. The top four buttons stacked two and two select "On/STB" (for "standby"; this button is red while the others are white); "Mute"; "Display"; and (tape) "Monitor." Below those and centered alone are the volume buttons: "Up"/"Down." The remote's bottom half has two rows of



MEASUREMENTS

The Gryphon Commander's power supply was too heavy for me to lift onto the test bench for the measurements, so I wheeled it into the test lab on a small dolly. I could lift the lighter preamplifier chassis onto the bench, but the power umbilicals weren't long enough to reach the supply on the floor. I therefore placed the preamplifier on top of the supply, separating the two chassis with a stack of 2x4s to provide some separation and to avoid damaging the supply's finish. Still, the proximity of the power supply could disturb the preamplifier's noise floor.

I used my Audio Precision SYS2722 system¹ to examine the Gryphon preamplifier's measured performance. The Commander preserved absolute polarity (ie, was noninverting) with both balanced and unbalanced inputs and outputs. As set by MF for his review, the maximum gain was 17.5dB from the balanced inputs to the balanced outputs and from the unbalanced inputs to the unbalanced outputs—close to

the specified 18dB. Gain from the unbalanced inputs to the balanced outputs was 6dB higher.

The Commander's unbalanced input impedance was lower than the specified 12k ohms, at 7.4k ohms from 20Hz to 20kHz. At 29k ohms, the balanced input impedance was higher than the specified 18k ohms, again from 20Hz to 20kHz. The out-

put impedance is specified as an extremely low 7 ohms. I measured 13 ohms from the balanced outputs and 19 ohms from the unbalanced outputs, both values consistent across the audioband and still very low.

The preamplifier's frequency response into high impedances was flat from 10Hz

¹ See stereophile.com/content/measurements-maps-precision.

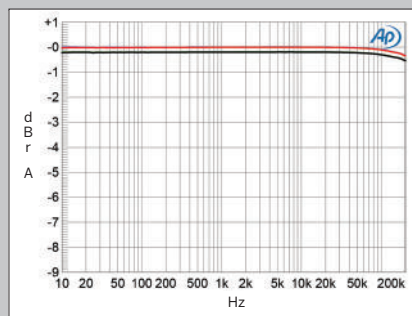


Fig.1 Gryphon Commander, balanced frequency response with volume control set to "84" at 1V into: 100k ohms (left channel blue, right red), 600 ohms (left green, right gray) (1dB/vertical div.).

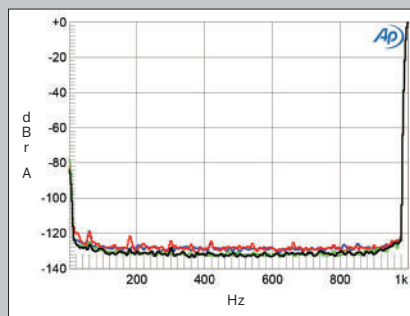


Fig.2 Gryphon Commander, balanced spectrum of 1kHz sine wave, DC-1kHz, at 1V into 100k ohms with volume control set to "84" (left channel blue, right red) and to "64" (left green, right gray; linear frequency scale).

three input buttons (1,3,5 and 2,4,6) on the left and an “Up”/“Down” input selector on the right. The “Display” button lets you choose among four screen intensity levels, “Auto Off,” and “Auto Dim.”

It took just a few minutes, working from the front-panel triangle, to name the inputs and match input levels. Fresh out of the box, the Commander sounded opaque, overly smooth, and “closed in.” It was time for break-in, as this unit was factory fresh. I listened for about an hour, but that’s all there was time for as I was leaving the next day for the UK to attend SME’s launch of the new flagship Model 60 turntable. (See the article and video posted on the AnalogPlanet YouTube channel.¹) Before leaving for the airport, I set Roon to stream Qobuz through the dCS Vivaldi One at low volume.

Back and ready to listen

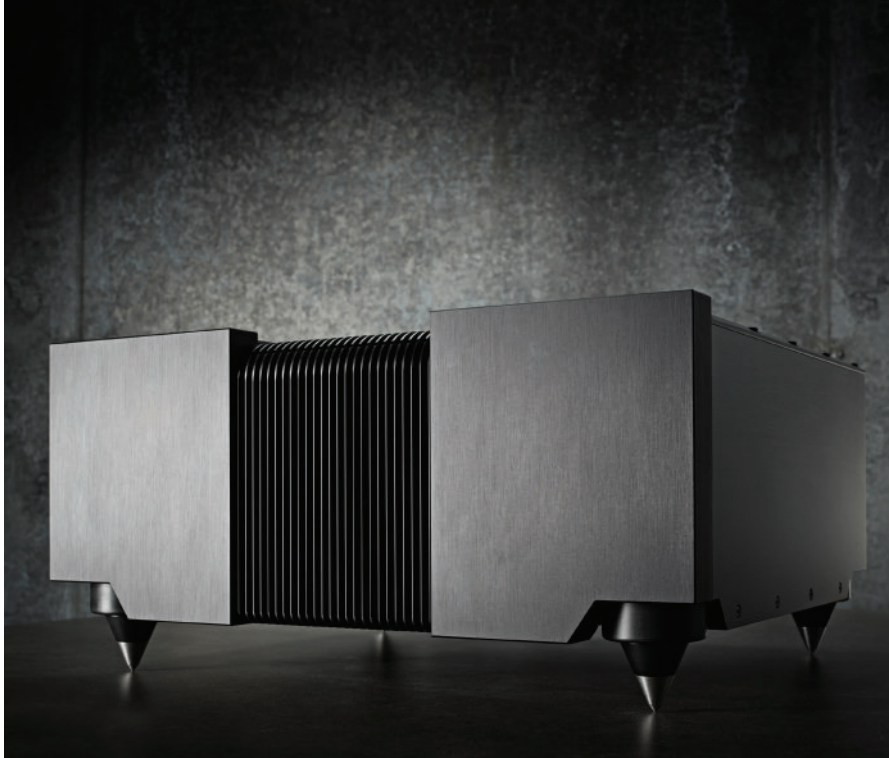
Upon my return six days later, I ran downstairs, curious to hear the change, if any. Roon Radio was serving up Diana Krall and Tony Bennett backed by the Bill Charlap Trio singing “I Got Rhythm” from the album *Love Is Here to Stay* (24/96 FLAC, Qobuz). I thought I was at a hi-fi show. Nice recording, nothing special, but the presentation was anything but closed in and overly smooth. It was precise, pleasingly taut, and well-focused. Image three-dimensionality was immediately impressive. “Vital” was the one-word description that came to mind. It was awfully good to again get in front of the system.

I’ve spent a lot of time optimizing my reference system, to the point where I don’t enjoy listening to it with an alien piece inserted for review that doesn’t measure up to what’s been removed to

make way for it. Sometimes that piece will get a positive review because it’s deserving for what it costs and what it does, but the bar here, for “better” or even for “as good,” is very high. My reference darTZeel NHB-18NS preamp is a formidable piece, especially paired with the matching amplifiers.

The Gryphon guys had been in town once a few months before the dropoff and had a chance to listen to my reference system with no alterations. They struck me as music people, not technocrats. I played them the Music Matters reissue of Grant Green’s *Idle Mo-*

¹ See analogplanet.com/content/sme-debuts-new-flagship-model-60-turntable-new-model-va-polymer-tonearm.



measurements, continued

to 100kHz (fig.1, blue and red traces), with superb channel matching in both balanced and unbalanced modes. The Commander’s response into 600 ohms (green and gray traces) was identical. Fig.1 was taken with the Commander’s volume control at its maximum setting of “84.” The volume control operated in 1dB steps, and both the frequency response and the superb channel matching were preserved at lower settings of the control.

The Gryphon preamplifier’s channel separation (not shown) was superb, at >130dB in both directions below 2kHz, and decreased to a still excellent 114dB at the top of the audioband. From balanced inputs to balanced output, the Commander offered extremely low noise, though power-supply-related spurious at 60Hz and 180Hz are present in the right channel’s output (fig.2, red trace). These are perhaps due to the radiated field from the power supply’s transformers, but at -120dB ref. 1V, they are negligible. The wideband, unweighted

signal/noise ratio, measured with the unbalanced input shorted to ground but the volume control set to its maximum, was a high 77.5dB ref. 1V in the left channel, 76.5dB in the right. Restricting the measurement bandwidth to the audioband increased the S/N ratio to 89.7dB, left, and 87.4dB, right, while switching an A-weighting filter into circuit further improved both

ratios to 94dB. Reducing the volume control setting by 20dB slightly reduced the level of noise (fig.2, green and gray traces).

Fig.3 plots the percentage of THD+noise in the Commander’s balanced output against the output voltage into 100k ohms with the volume control set to its maximum. Actual distortion lies beneath the noise floor below an output of 2V but

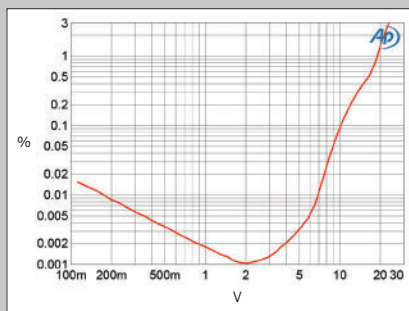


Fig.3 Gryphon Commander, balanced distortion (%) vs 1kHz output voltage into 100k ohms.

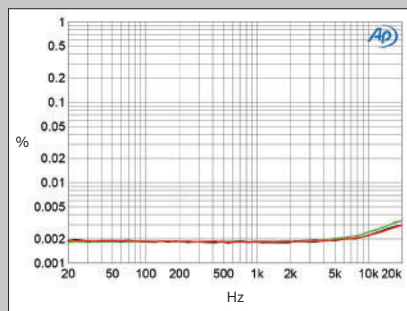


Fig.4 Gryphon Commander, balanced THD+N (%) vs frequency at 2V into: 100k ohms (left channel blue, right red), 600 ohms (left green, right gray).

ments (MMBST-84154) to demonstrate the system's nonelectronic-sounding transparency, generous delivery of instrumental textures, and clean, precise transients without artificial edge or etch.

I've been at this long enough to know when visitors are liking what they are hearing and when they're just being polite. They liked the presentation, as much for what it was as for the potential it had to reveal the new Commander's sonic capabilities. This system is as free of solid state detritus as I've ever heard from silicon, and it is not achieved by smoothing or softening to cover up the flaws.

Do you want a preamp with sonic "character"? I don't. There's always *some* imparted character, but less is more, and with modern electronics, colorations tend to be way down, transparency and quiet way up. Or anyway, they should be.

The Grant Green LP through the Commander, with everything else in the system unchanged, told me immediately that, as good as the NHB-18NS is—and it's plenty good—the Commander was quieter, produced blacker backgrounds and faster dynamic bass attack, and seemed to impart less of itself on the musical presentation. There was less "character"—but now we are talking about minor, subtle shadings, though their sum adds up to something significant. Well, perhaps not to a tube lover's ears. To my ears, though, the Commander and darTZeel '468s made especially beautiful music together. The Commander delivered the image solidity and three-dimensionality that are one of the darTZeel preamp's strong suits.

On the Grant Green album, the title track, by Duke Pearson, is a slow, lugubrious-but-pleasant trudge through late-night reverie. Stating the melodic line on vibes, Bobby Hutcherson then doubles



Green's deliberate single guitar notes. I have heard this dozens of times, but the first play through the Commander effortlessly and precisely delivered the individual vibe and guitar notes in discrete sonic packages—and not at all in a "nonmusical," analytical fashion. A never-before-noticed acoustic space appeared behind the vibes, probably the result of the background quiet.

There's a thing Grant Green does, a flurry of rapid strums as opposed to the single notes he mostly picks. I'm thinking right now, for the first time, that it sounds like something Stevie Ray Vaughan did: He must have gotten it from Green! A web search revealed that SRV listened to Green. Once you notice this musical exclamation point, the similarities are obvious. It's almost a quote.

How does a preamp reveal such a thing, or draw attention to

measurements, continued

gradually starts to rise above that level. We specify a preamplifier's clipping voltage as being when the THD+N reaches 1%, which occurred with an input signal of 2.6V. The Commander's balanced output level at this THD percentage was 19.14V, much higher than the maximum level the preamplifier will be asked to deliver in typical use. The clipping voltage into the current-hungry 600 ohm load (not shown) was identical, a tribute to the Gryphon's muscular output stage.

To ensure that the THD+N reading was not dominated by noise, I measured how the Commander's distortion changed with frequency at an output level of 2V. The THD+N percentage was superbly low throughout the audioband into both 100k ohm and 600 ohm loads (fig.4). I examined the spectrum of the distortion at the same output level (fig.5); the only harmonics that can be seen are the second, at -110dB (0.0003%), and the third, at -106dB

(0.0005%). Commendably, the level of these harmonics didn't rise into 600 ohms. Tested for intermodulation distortion with an equal mix of 19 and 20kHz tones at the same peak voltage level, the second-order difference product at 1kHz lay just above -120dB (0.0001%) in the left channel (fig.6, blue trace) and -130dB (0.00003%)

in the right (red). Higher-order products were all below a still negligible -106dB (0.0005%).

With its two chassis weighing 151lb, the Gryphon Commander is the heaviest preamplifier I have encountered. Its measured performance is among the best I have encountered.—John Atkinson

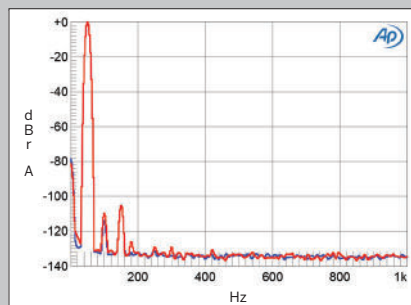


Fig.5 Gryphon Commander, balanced spectrum of 1kHz sine wave, DC-1kHz, at 2V into 100k ohms (left channel blue, right red; linear frequency scale).

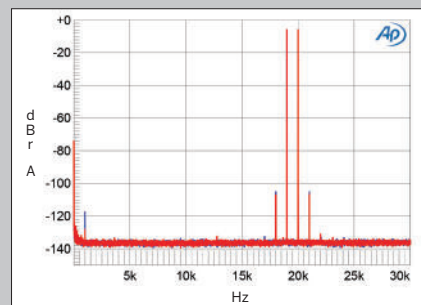


Fig.6 Gryphon Commander, balanced HF intermodulation spectrum, DC-30kHz, 19+20kHz at 2V into 100k ohms (left channel blue, right red; linear frequency scale).

it? I don't know, but somehow the Commander's tonality, or the way it handled the transients, did just that. And it did it without delivering the information in a stiff, overly grippy way that stifles musical flow and turns the presentation into analytical sonic cardboard. The Commander also delivered Bob Cranshaw's bass with a slightly more nimble and precise attack, with somewhat more physical focus, but again without sacrificing natural attack, sustain, and decay.

Were the differences between what I was used to and what the Commander produced revelatory? In some ways, yes, as in the presentation revealed and/or communicated aspects of the musical performance I'd not previously noticed. But speaker and cartridge nonlinearities can produce similar "revelations." Could that be happening here? I don't think so.

The quiet

Reviewers and satisfied owners have commented on the darTZeel preamp's quiescent noise (and John Atkinson's measurements show it). You really don't hear it as noise, per se, unless you put your ear close to the speaker. It's not audible when music is playing.

But with the Commander in the darTZeel's place, you notice its absence—especially streaming hi-rez audio via Tidal and Qobuz. I'm not saying the Commander ruins listening to the same streams through the darTZeel, but through the Commander you *can* "see" farther into the soundstage, and there's an increased sense of nothingness behind the music, which further enhances the Wilson XVX loudspeakers' ability to vanish from the room. Had my electricity not been seriously upgraded to produce its own black backgrounds, perhaps this lower noise floor would not have been as obvious, or noticeable at all.

Searching Qobuz recently, with the darTZeel preamp still in the system I happened upon Jean-Marc Luisada's sumptuous performance of Schubert Piano Sonatas D.840 and D.960, on the La Dolce Volta label (not to be confused with The Mars Volta). The 24/88.2 recording puts the well-recorded piano in a spacious acoustic: the Great Hall of the Arsenal in Metz, in northeastern France, near Luxembourg. The piano's dynamics on this recording are *startling*. I'd acclimated to the presentation.

With the Commander in place, the timbral and transient presentation didn't change at all, but the piano was presented in greater relief relative to the reverberant field, and both micro- and macrodynamics were noticeably improved. Lower residual noise also yielded improvements in instrumental transparency.

I'm currently running four tonearms, four cartridges, three turntables, and three phono preamps through the Commander, plus the dCS Vivaldi One SACD player/DAC. These were all in the system when I swapped out the darTZeel for the Commander. The sonic differences among the analog-domain sources were reliably clear through the darTZeel, which is an extremely low-coloration device; it adds little to the musical presentation. If only due to the lower noise floor, the Commander's unerringly neutral "passthrough" abilities seem to clarify even further and intensify these source-based differences.

Conclusion

Had my reference preamp been of far lesser quality, or had I been more of a "green" reviewer, inserting the Commander would have produced more of a sonic earthquake and caused a great deal of effusive running of the mouth. Even for this seasoned veteran, every listen demonstrated that the Commander did as promised, allowing (rather than producing) exceptionally transparent, fast, natural, open sound from all source components. It was as close to a neutral-sounding audio component as I've had in my system.



ASSOCIATED EQUIPMENT

Analog sources OMA K3, Acoustic Signature Montana NEO and J. Sikora Reference turntables, Schröder K3, Acoustic Signature TA-7000, Acoustical Systems Axiom and J. Sikora KV12 tonearms; Lyra Atlas λ Lambda SL and Etna λ Lambda SL, Ortofon Anna Diamond and Verismo, Luxman LMC-5 cartridges.

Digital sources dCS Vivaldi One SACD player/DAC; Lynx Hilo A/D-D/A converter; MacMini (Room), Audirvana Digital Audio Player; Vinyl Studio software.

Preamplification darTZeel NHB-18NS, Ypsilon MC-10L, MC-16L, and MC-26L step-up transformers; Ypsilon VPS-100, CH Precision P1 with X1 PSU, SW1X LPU III.

Power amplifiers darTZeel NHB 468 monoblocks, Music Reference RM200 Mk2.

Cables Interconnect: TARA Labs Zero Gold, Zero Evolution, Zero and Air Evolution, AudioQuest Dragon, Analysis Plus Silver Apex, Stealth Sakra & Indra. Speaker: Audioquest Dragon, TARA Labs Omega EvolutionSP. AC: AudioQuest Dragon, Dynamic Design Neutron GS Digital power cord.

Accessories AudioQuest Niagara 7000, CAD GC1 and GC3 Ground Controls; AudioQuest NRG Edison AC wall box & receptacles; RSX Industries Power8 box, ASC Tube Traps; RPG BAD, Skyline & Abffusor panels, Stillpoints Aperture II Room panels, Synergistic Research UEF products (various), Symposium Ultra platform; HRS XVR turntable stand, Signature SXR and 2 Stillpoints ESS stands, Thixar and Stillpoints amplifier stands; Audiodharma Cable Cooker; Furutech record demagnetizer; Orb DF-01iA Disc Flattener, Furutech deStat; Loricraft PRC4 Deluxe, Audio Desk Systeme Vinyl Cleaner Pro X, Kirmuss Audio KA-RC-1 and Klaudio KD-CLN-LP200T record-cleaning machines.

—Michael Fremer

If I had to draw an analogy to something in the physical world, it would be sparkling clean, refreshing water flowing in a pristine stream.

The areas where I felt the Commander noticeably bested my high-performance reference were all related to the reference's one measured weakness: noise. The Commander was *quieter*, and I'm confident that measurements will validate that observation.

For those with the means to own it, the Commander is a visual and physical pleasure center, as well as a sonic one. I've been told that the entire first run of more than 50 Commanders has already sold out. I doubt there will be a disappointed buyer in that group. ■