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## Review: Spectral DMA-360 Monoblock Power Amplifier

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I would like to write a rave review of the Spectral DMA-360 basic amplifier. And I suppose I am doing so, except that I find myself really unable to describe the monoblock's greatest strength, and that is its lack of a tonal "character" or "coloration." How do you describe what does not, at this point and based on our past experience with amplifiers, seem to exist? You're left with a void at the center of the review.

It isn't that I cannot describe some aspects of the Spectral's performance: I can. But I must, I fear, get at the essential and overwhelming strength of the Spectral by indirection. So this won't be like your typical "rave" review.

And, unlike the characteristic raves in the audio "Press" these days, this isn't going to be a 15,000-word essay about the virtues of my grandmother's brassiere, nor a dissertation on amplifier design. I am a listener, not an engineer. An audio device, be it amplifier or turntable, either works or it doesn't. Listening to the theory of a product is like the pronouncements of Alice's Red Queen: Verdict first, evidence later.

I hope to be able to return to this magnificent product in future listening sessions, but I cannot, as of this writing, guarantee that. I have long petitioned Spectral's sole owner and driving force, Rick Fryer, for product to review. And it has been eight years since I succeeded in getting, with his full blessings, the long-term loan of a review sample, which was, at that, a cartridge made for spectral by Scantech.

Some companies, those with a strong-minded visionary at the helm, are able to turn out products of continuing fascinations. And Spectral has, over its corporate life, helped define the state-of-the-art in solid-state design. Meaning that I have been, as a student of the art, *determined* to hear the results of its determination to bend the intricacies of the transistor to musical purposes. Despite Fryer's reservations, I have managed, with a little help from my friends, to audition Spectral components, including two versions of the DMC-20 (their preamp, with its superb moving-coil phono stage), several of the basic amplifiers, and most recently, the digital playback system, the magnificent 3000 playback deck and the 2000 digital-to-analog converter, but not, alas together. Such has been the hit-and-miss nature of either semi- or un-authorized "loans" that I have not been able to listen at a comfortable length and get the full measure of their component's performance, although I have known the overall architecture of the Spectral sound. At first I insisted on using them as they are sold, that is, as separate components, which caused no end of friction with Fryer. Fryer says he would like, if I must do so, for me to review a complete system with Spectral electronics and MIT cables at the core. So I told him, yes, I'm willing. I've said so. But no such system, hints notwithstanding, has been

forthcoming.

Nevertheless, I've been able, through these selected samplings, to keep a fix on the company's sonic progress, and the intellectual evolution of its principal designer, Keith O. Johnson, who has, in the past several years, made explosive leaps forward, both in the quality of his HDCD recordings (a process he co-authored) for Reference Recordings and in his design work for Spectral and on Avalon's new Eidolon speaker system. Johnson's work has matured and with the Spectral DMA-360, the new monoblock amplifier, he has created an audio classic, an amplifier that will not only stand the test of time, but help redefine, for many, their expectations of what solid-state circuitry, with wizardry applied, can do.

One of *The Absolute Sound's* readers - whose identity I (honestly) do not know - lent me a pair of the 360s for three weeks, then, graciously, extended that loan another three weeks. An intermediary arranged the loan - he is in the audio business and is a great admirer of the design work that emerges from this high tech, Silicon Valley company. He arranged the loan out of a shared curiosity: he had nothing to gain (or lose had it come out otherwise), nor does he have any conflicts of interest in the matter. He understands a singular truth about this reviewer: that I want to (and feel I must) hear, to evaluate, all the cutting-edge designs that the best High End designers have to offer. Period.

The DMA-360 produces 300 watts into 8 ohms, 533 into 4 ohms, and 680 into 2 ohms. It has an input impedance of 10k/ohms, which means it ought not be used with tubed pre-amplifiers of high output impedance.\* The other specifications, which I won't belabor herein, are impressive, perhaps none more than the 90-amp output current capability, which may just account for its extraordinary dynamic capabilities.\*\* Indeed, the 360 has the width of dynamic swings we associate with the most monolithic of tubed basic amplifiers.

We used the 360 with enough speakers to know that it brings out the best in each of them. We principally used it with the Porzilli Pipedreams (but also with the Burmester), which it imbued with an aliveness and delicacy of response we hadn't suspected. What I thought were broadband, but subtle, colorations in the separate drive sections of the 360 managed to unite into a coherent oneness, producing a continuous and very wide field that stretched from wall to wall. Its ribbon-tweeter highs became "silvery" and "airy." (I am talking about comparisons with the real thing, not colorations, here.)

Like all Spectral designs, the 360 extends well above the bats and belfry regions, up nearly into videoland. (The stated high-frequency response, plus or minus 3 decibels, extends to 1.8 MHz.) And with that comes a warning likely to scare the pants off you, if you pay close attention to the instruction book which mandates the use of MIT cables that act as "low-pass filters" for "ultra-high frequency rolloff." This is said to prevent spurious ultra-high frequency signals from pitching the amplifier (indeed, all of their amplifiers) into oscillation.

Actually, before we read that, we hooked up the amplifier with Nordost SPM, one of the lowest of cables in regard to capacitance and inductance. And promptly, as if by ESP, got a call from the facilitator-of-the-loan telling us the amps might blow up if we didn't get the MIT cables pronto. This we did. And asked Monster Cable for the use of a pair of their new high-capacitance cables as a backup. We lost time in the process of doing this. And I, for one, thought the Spectral amplifiers with the MIT cables sounded bright and electronic. And wondered if my bowled-over first impression might have been wrong.

The expert witnesses we consulted (outside of Spectral) were in sharp disagreement over the likelihood of disaster with a set of speaker cables like the Nordost. I wanted to proceed with the review and take my chances. But it was only when Tom Martin agreed to underwrite the cost of replacing the amplifiers' output stages should disaster strike that Scot Markwell (who had urged playing it safe) was satisfied that the testing could proceed. And proceed we did. Using the Nordost SPM speaker cables and daring Fate by leaving the amplifiers cooking throughout the nights that followed - and I live in the New York metropolitan region, which means mucho trashed in the V- and UHF- spectra. Not a whisper of a problem. Complete stability. And wonderful sound. With no audible artifacts of an electronic nature.

But, hold it! If you use the Spectral with single-ended interconnects (the Quattro Fils vastly preferred on these premises), there will be a sonic signature, one not unfamiliar to veterans of Fryer's gear. There is a kind of "whiteness" of tonal coloration, a step on the yang side of complete neutrality, that suggests a dynamic constriction in the upper midrange and low highs. The wider the dynamics of your recorded source, and the louder that source gets, the more evident this white quality becomes, until it borders on the bright. (Bright in the unyielding sense of that word.) One particular killer CD that illustrated this with a vengeance is Tony Faulkner's tour de force recording of Vaughan Williams' *Symphonies No. 7 ("Antarctica")* and 8. This recording {Naxos 8.550737}, with the Bournemouth under the direction of Kees Bakels, reaches a kind of sonic apotheosis in Antarctica's third movement. The music, derived from the score V-W wrote for *Scott of the Antarctic*, depicts the moment when the ill-fated members of the polar expedition come across a giant glacier - there is a burst of gong, brass, and organ pedal points that has tried the soul of many an amplifier here. Most fail the trial.

With balanced Quattro Fils from the Burmester to the Spectral, this climax was reproduced with absolute ease, the kind you get in the concert hall when there are loud bursts of music. I'm not sure the words are right, but with most reproduced sound, which an amplifier starts to run out of power (and this happens all the time with solid-state models, even nominally high-powered ones), your ears start to close down, to sort of "scrunch" down to avoid the pain of the distortion. (Sorry I'm not an otologist who knows the proper term for the effect.) As mine did with the Spectral run with an unbalanced interconnect. It sounded as if we had gained another 6 dB or so of dynamic headroom. As if the margin of the dynamic bandwidth had been expanded. (Curious thing though, unlike the usual contrast between balanced and unbalanced operation, there was no difference in the volume when switching from one mode of operation to the other. Before, with other amps, there always had been.)

But the most significant thing about using Nordost's balanced Quattro Fils was that the "whitish" coloration, evident on all music, and most especially audible when the going got tough, just vanished. Puff, gone like the morning fogs near the ocean. On all material.

I had been, in the way reviewers will, hanging on to the whitish character as a point of reference (and I do have to say so good was the Spectral's performance, from the outset, that I did not really become aware of any coloration at all for several weeks.) And its disappearance left me in the embarrassing situation of not quite - well, not period - knowing how to describe the amplifier's sound. It is my belief that character and coloration are closely related to an amplifier's dynamic capabilities. And this amplifier can surmount a wide dynamic far better than any solid-state amplifier in my experience, Period, Paragraph.

For that matter, the dynamics are at least the equal to if not the superior of all the tube amplifiers I

have heard. I've been rifling through my memory boxes to see if I know a tubed unit that actually surpasses the Spectral in dynamics and I cannot, for the nonce, say that I do. You want to test the contention? Use that same Vaughan Williams recording (one of the sonic glories of the CD era). Use that third movement, the moment when the explorers "see" the glacier. The amp moves progressively from a barely audible *pianissimo* to (what I would adjudge as) a triple *forte*, something none of the amplifiers I now have on hand can do. (The Joule Grand Marquis Electra does have the more ethereal *ppps* during this cut, but it does not make the jump to the loudest section with either the true-to-life majesty of the 360 or its verve.)

In comparison with the Joule (review, Issue 115), the Spectral supplies more heft and energy to the top octave (almost wrote "octane") transients and, even more convincingly, to the lowest of the extreme bass notes, e.g., the organ pedal points Antarctica's third movement. Or for contrast's sake, you might try the last movement of the *Eighth* on this CD, where V-W writes a near-tocatta for percussion. Any of Keith Johnson's own recent RR recordings, especially *Mephisto* or *Ports of Call*, will show the strengths of the Spectral to best advantage (hardly a surprise). But on the other hand, you might reverse the argument and say it takes an amplifier like the 360 to show what Johnson has been able to squeeze into the HDCD format.

But I beg the question of character. At this point, I really don't know what the Spectral "sounds" like. It has less character than I've heard from any amplifier. And in this respect - as if it were only one - it would be unique, and, I'm supposing, a breakthrough. If it does have identifying sonic fingerprints, it's going to take me more time and more listening to detect them than I have had. And this is why I'd like to come back to the amp for further study.

It would be easier - and certainly misleading in terms of the weight of the amplifier's achievements - for me to identify a few things that, perhaps, keep it from being the ultimate amp. One of them may be a simple matter of power: But the 360s do not have that elusive quality I call "authority" - and authority is a quality I've heard from but few amps, beginning long ago with the Conrad-Johnson Premier One. Authority does have something to do with a kind of midbass "weight." *Gravitas* might the word, but it probably is too non-secular for use in an audio review. When an amp has "authority" it sounds inarguably right, the way things do in a hall. I might venture a guess that this has something to do with either the reserve power or, maybe more likely, the way an amplifier can control a speaker's performance (and perhaps something about the crossovers) when it is reproducing the foundation of the orchestra. And I know the Spectral, as good as it is in reproducing the soundspace and the dimensional images therein, still misses a bit of the magic of layered depth and the feel of the physical deepness of the orchestral stage (something the Joule gets right).

But then again, giving Fryer his due, perhaps I still haven't heard the 360 optimally, since I haven't heard it in a Spectral-approved set-up. Perhaps there is yet more performance to be eked out of the unit. Perhaps.

Let me review its strengths to make it quite clear why the 360 represents a breakthrough, both for Spectral's electronics and for the design of solid-state in general: run the balanced mode, it has no identifiable character or coloration. (There are other amplifiers that are bordering on this degree of "character" elimination and these have a family similarity to the 360, suggesting that finally amplifiers may be converging on the that pie-in-the-sky day when they really will all sound alike.)

It has very wide dynamic capabilities. I'd almost say it's best at overall dynamics, not quite so sterling

at microdynamic resolution in the *piano* range (from *pppp* to *p*). Its overall macrodynamic resolution exceeds that of any amplifier in my experience with these beasts.

It has no electronic artifacts (noise products) that I can hear. It is dead quiet in operation. You won't know the system is on when the 360 is your reference amp. And there is no electronic haze or glaze over any part of the sound spectrum (something that couldn't always be said about previous Spectral designs). Also an advance is the 360's recreation of dimensional images with its reproduced soundspace. The true measure of this aspect of sound occurs in the playback of woodwinds, which have much of their tonal nuance and seductiveness with this amp. (Try the Mercury CD of *The Composer and His Orchestra*. Or Johnson's own recording of Dukas' *The Sorcerer's Apprentice on Mephisto*.) Does it get the column of air effect when a reed is playing with the same degree of subtlety as, say, the Joule? I think not, but folks will argue.

Maybe in the end, its greatest strength lies in its power reserves. In my experience, the easiest way to tell amplifiers apart and the recorded from the real lies in the ease or effortlessness with which an amp rides over an orchestral storm. (I don't think there is a serious argument at this point over the fact that tube amplifiers clip in a different fashion from their solid-state brothers: tube amps actually compress dynamics as they move toward clipping, which may give listeners the sense of more power. Certainly a 50-watt - and well-designed - tubed amp will sound more powerful than virtually all 50-watters of solid-state origin.) And there is, on LPs and CDs, musical material, say, a female voice, that will with any speaker of reasonable efficiency, require hundreds of watts to reproduce effortlessly.\*\*\* Because the 360 is such a powerhouse (but not in size or weight, happily), it has a leg up in the reproduction of complex musical material.

Hats off, gentlefolk. A star is born.

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