SOLID STATE POWER AMP REVIEWS

Krell Solo 575 monoblock power amplifier

Michael Fremer | Sep 29, 2015

Class-A amplifiers have a well-deserved reputation for being power guzzlers that run hot enough to burn fingers. They're inherently inefficient because their output devices conduct full current at all times, and much of that current is dissipated as heat—requiring, in the case of class-A solid-state amplifiers, massive heatsinks. This is why class-A amps tend to produce relatively low power, and tend to be heavy and expensive to buy and run. And these days, energy inefficiency is out of fashion.

These disadvantages are the results of class-A's advantages: When output

devices are biased for class-A operation, the crossover distortion normally generated as the signal swings from positive to negative and back is eliminated. And that, say class-A fans, is the source of the breed's magical sound, which is often described as smooth, rich, and coherent from top to bottom.

iBias

While class-A amplifiers figure prominently in Krell Industries' genome, the company has steered clear of them for a while—presumably for the disadvantages described above, and because those disadvantages make traditional class-A amplifiers impractical for home-theater-friendly, high-powered, multichannel systems. And I would guess that Krell isn't willing or able to invest in a separate line of mono or stereo class-A amps designed only for audiophiles.

A class-A amp that would be sensible for use in a multichannel system would have to produce a prodigious amount of power, be of practical size, consume little power at idle, and run relatively cool, eliminating the need for massive heatsinks; Krell's recently developed iBias technology (patent pending) appears to fulfill those requirements. iBias is conceptually similar to the sliding-bias or tracking-bias amps of the past—Nelson Pass's Threshold 800A of the 1970s might have been the first—in which input signal was monitored, and that information was used to adjust the bias voltage, all based on an assumed speaker load. Krell's iBias circuit is said to monitor the amplifier's *output* current, which the company claims is a far more precise and efficient arrangement because it measures the real-time demands of the specific speaker to which the amp is connected.

Krell uses iBias in a broad range of models: monoblocks, as well as amplifiers of two, three, five, and seven channels. The subject of this review, the Solo 575 ($22,500/pair), is their most powerful iBias monoblock. In fact, the Solo 575 is unusually powerful for a class-A amp, outputting a claimed 575W RMS into 8 ohms or 900W into 4 ohms, yet weighing only 70 lbs and having no external heatsinks. Instead, heat is dealt with by four small, thermostatically controlled fans on the rear panel



that exhaust through the top panel.

If you're skeptical about Krell's claim that a class-A amplifier of that size and weight can output that kind of power without heatsinks, you're not alone: If its bias voltage varies with demand, can it even be called a class-A amp? And does it sound like one? Maybe John Atkinson's measurements will offer an answer to the first question. I'm better qualified to answer the second.

Description

Aesthetically, the new Krell *looks* more like a conventional class-A/B amplifier. Rather than being housed in a milled-aluminum case with a thick top plate, the Solo 575 is wrapped in a thin, U-shaped cover—the kind usually found on better home-theater receivers and processors: That's a money-saver, as is the absence of heavy heatsinks along the sides. But the amp does have a thick aluminum faceplate, of the same (attractive) curved design used throughout Krell's line—including the superb-sounding Foundation surround-sound processor I reviewed in March 2014 for *Sound&Vision*. Like the Foundation, the Solo 575 has a somewhat dated-looking LCD screen, which displays the unit's IP address—more about that later—and alerts you to fault conditions. For those of you too young to remember, in the old days, amplifiers communicated problems like shorted speaker terminals with smoke signals and, sometimes, flames.

On the Solo 575's rear panel are single-ended RCA and balanced XLR

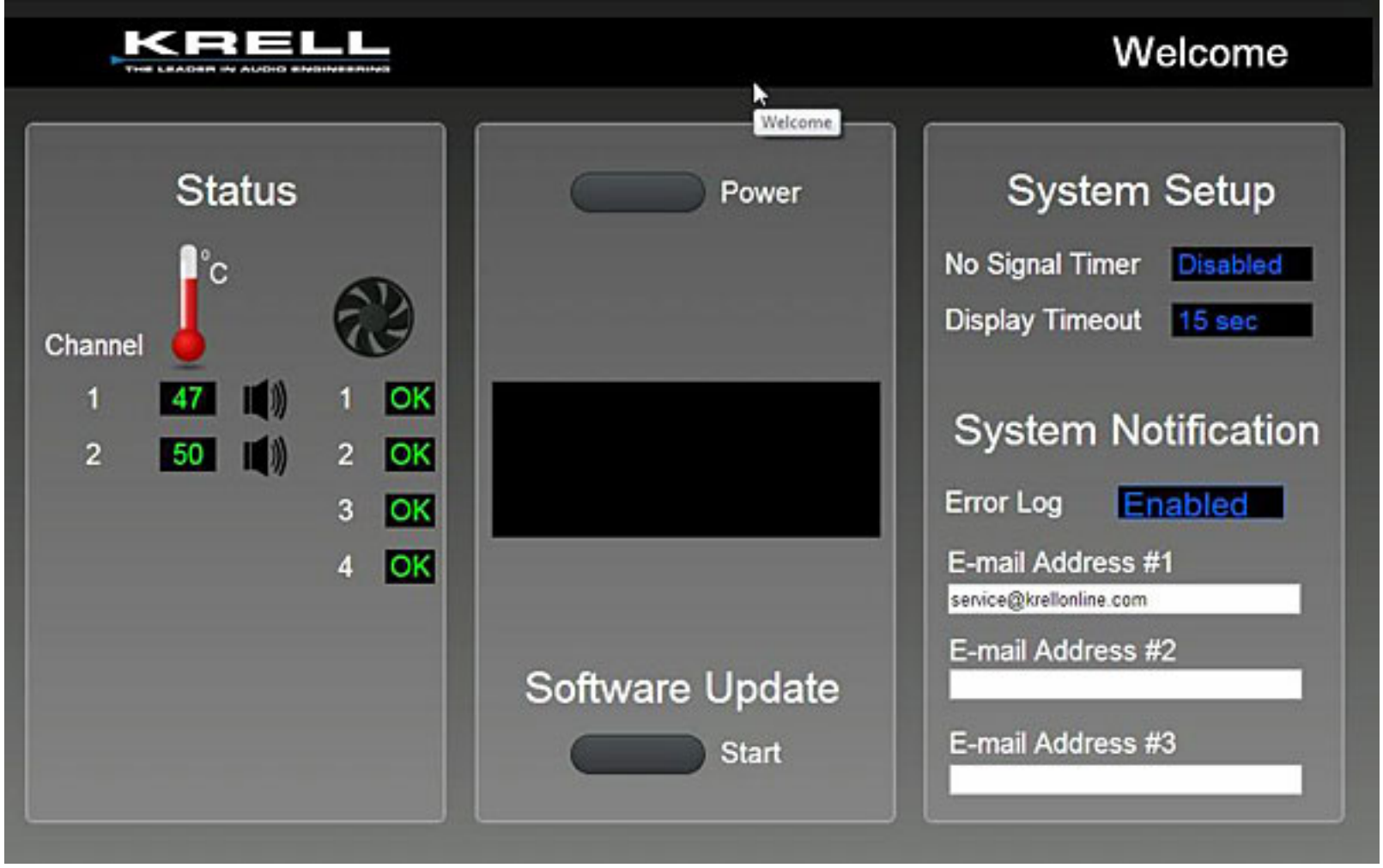
inputs, excellent and easy-to-use WBT NextGen speaker binding posts, a power switch, a 12V Trigger input, an RJ45 Ethernet connector, and the aforementioned cooling fans, as well as Krell's proprietary CAST (Current Audio Signal Transmission) Lemo connector input, for use with Krell front-end components.

From input to output, the Solo 575's circuitry is fully complementary and fully balanced, and uses all discrete components. At the input stage, the incoming signal is converted to current by proprietary multiple-output current mirrors; from there on, all gain is applied as current gain. Throughput is direct-coupled—there are no capacitors in the signal path—for lower internal impedance and, according to Krell, more precise control of the speaker, as well as flatter and more extended low-frequency response. DC servos are used to remove DC from the output.

When I asked Bill McKiegan, president of Krell Industries, about the Solo 575's price—which, despite the money-saving construction, is still $22,500—he quickly cited the considerably higher prices of earlier Krell monoblocks; I would add that competing amplifiers that output far fewer watts but are housed in more substantial cases can cost upward of $50,000/pair—I've reviewed quite a few of those in the last few years. Given its power output, the Solo 575 might be a relative bargain.

Easy Setup

After connecting it to a network router—that's where the RJ45 jack comes in—and entering the amplifier's pre-assigned IP address from a Web browser on a computer or tablet, the Solo 575 user can access that amp's individual Web page. From there, the user can monitor the Solo 575's thermal status, as well as put it in mute and download software updates. The page can alert you to fault conditions, such as crossed speaker wires. Any detected fault automatically triggers an e-mail to Krell, who then enter the unit's serial number in their database and notify the dealer who sold it to you (as well as the many audiophiles at the National Security Agency).



I spent time driving the Solo 575s' balanced XLR inputs via the transformer-coupled XLR outputs of my darTZeel NHB-18NS preamplifier, but I did most of my listening with the darTZeel's single-ended outputs driving the Krell's single-ended inputs.

Take 1

I'm not biased for or against class-A amplifiers—or, for that matter, for or against class-A/B amps, though the latter are what I've mostly owned over the years. The solid-state class-A amplifiers of my experience have always sounded velvet-smooth, non-electronic, and often tube-like, though some have sounded softer than I like. It's easy to understand the enthusiasm for class-A among many audiophiles, especially in terms of sonic purity and an absence of electronica.

But when I first played music through the Krell Solo 575s, they sounded broken: glazed and spatially flat, with weak bass. I was going to call McKiegan, but decided to let the burn-in process take its course. Two days later, they still sounded broken. I decided to do a reset: I turned off the Krells, pulled their plugs, then plugged them back in and powered them up.

Take 2

I put on a recent vinyl edition of Eiji Oue conducting the Minnesota Orchestra in Copland's Symphony 3 and *Fanfare for the Common Man* (200gm LP, Reference RM-1511)—a recording with enormously dynamic, well-extended, texturally supple, room-rattling bass-drum *thwacks*. I immediately heard a muscular, well-textured bottom end as the Solo 575s exerted a superior grip on the woofers of my Wilson Audio Specialties Alexandria XLF speakers, compared to that of my reference DarTZeel NHB-458 monoblocks. The weight and power of the Krell amps were undeniable: They had a bottom-end *whomp* that reminded me of Bel Canto Design's $50,000 Black amplification system—and that's a compliment.

The Krells weren't broken. What had happened? I don't know.

I had used the Copland LP to evaluate the Swedish Analog Technologies tonearm through my darTZeel amps, and while that bass was impressive in every way, the Solo 575s' transient slam and grip on the Wilsons' woofers took it to another level of excitement. Put it this way: The SAT arm's contribution to the sound of my system was like adding a subwoofer; with the 575s in the system, it was like adding a second sub—or even a third—so powerfully deep, throbbing, yet well controlled was the bottom end. There wasn't more bass; instead, what bass there *was* was just better controlled and better damped.

NEXT: Page 2 »

COMPANY INFO

Krell Industries, LLC
45 Connair Road
Orange, CT 06477-3650
(203) 799-9954
www.krellonline.com

ARTICLE CONTENTS

COMMENTS

Krell 575

Submitted by dave03hd on August 9, 2016 - 12:49pm

You keep on bringing up your dartzeels in this interview, comparing it with the Krells. Thats like comparing a Volkswagen to a Porche, come on now! Not even a fair comparison. Personaly I think the Datzeels are overpriced because you have to handle them with such kid gloves or they will break down.

Log in or register to post comments

Related | Latest | Galleries | Recommended

Mark Levinson No.536 monoblock power amplifier

Audionet Max monoblock power amplifier

Crown DC-300 power amplifier

AVM Ovation MA8.2 monoblock power amplifier

Boulder Amplifiers 2150 monoblock power amplifier

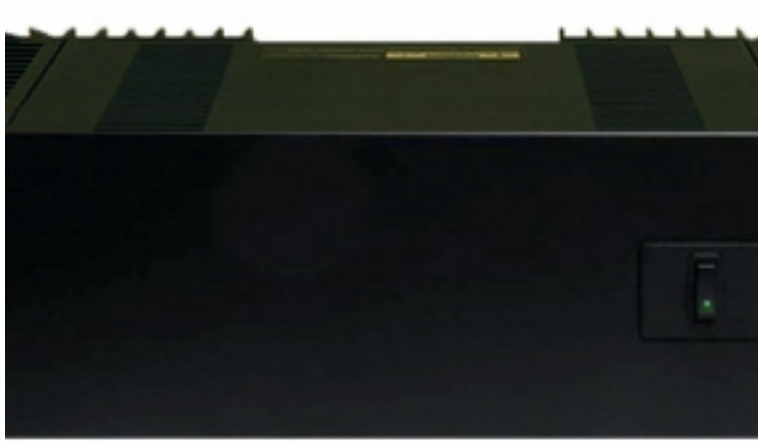
Mark Levinson No.29 power amplifier

Bel Canto e.One Ref600M power amplifier

SAE 2HP-D power amplifier

First Watt J2 power amplifier

Audio Alchemy DPA-1M monoblock power amplifier



Hafler Transnova 9500 power amplifier

SAE Mark II Power Amplifier

Naim NAC 62 preamplifier & NAP 140 power amplifier

Jeff Rowland Design Group Model 1 power amplifier

NAD Masters Series M22 power amplifier

Spec RPA-W7EX Real-Sound power amplifier