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Constantine Soo tests the caliber of
an "affordable Krell":

the **KAV-400xi** integrated amplifier

April, 2006

KRELL
THE LEADER IN AUDIO ENGINEERING



Specifications:

Frequency Response: 20 Hz - 20 kHz, +0 dB, -0.07 dB

Signal-To-Noise Ratio: 99 dB, "A" weighted

THD: 1 kHz <0.04%, 20 kHz <0.25%

Gain: 35.8 dB

Input Sensitivity: 0.644 Vrms

Input Impedance: 47 k Ω

Output Impedance: 0.17 Ω

Power Consumption: 20 W Idling, 1,800 W Maximum

Transformer: 750 VA

Inputs (All with Theater Throughput): XLR (1 pair), RCA (3 pairs)

Output Voltage: 138 V peak-to-peak

Output Power: 200 W/8 Ω , 400 W/4 Ω

Remote Control: Handheld wireless remote x 1, 12 VDC Out/In trigger x 1, RC-5 input via a DC power x 1

Dimensions: 17.3 W x 3.5 H x 17 D (inches)

Weight: 31lb (units only), 36lb (shipped)

Krell Industries, Inc.
 45 Connair Road
 Orange, CT 06477-3650
 Tel. 203-799-9954
 Fax. 203-891-2028
 email: krell@krellonline.com
 URL: <http://www.krellonline.com>



The subject of this review is a \$2,495 integrated amplifier by Krell, the KAV-400xi.

Many high-end audio companies survive by producing a wide range of products in price and quality to capture different spending patterns; but Krell has always concentrated its resources in making only the top-level products. Thus, a budget equipment bearing the Krell name becomes more than just a point of intrigue, it can provide more than a clue on Krell's core sonic priorities as personified in the KAV-400xi.

In 1980, the high-end audio and the film industries had a historic convergence, when Dan D'Agostino founded his high-end audio amplification company to develop the most powerful stereo amplifier for home audio reproduction, and he penned his company after Krell, the fictional civilization in the 1950's film, *Forbidden Planet*. It is highly unorthodox to name a start-up operation after an established name, much less one of Hollywood origin, and then to expect the company to prosper. Surely, in any case, "Klingon" sounds more like a winner.

Consequently, the utterance of this name today is conjuring up a consciousness utterly alien to the Sci-Fi realm.

But history has proven D'Agostino's vision in all things Krell, and today his company is among the most well regarded. Considering that Krell's ingenuity in product development is as well recognized as its loftiness in pricing, commending testimonials from patrons and reviewers throughout the company's product cycles only serve to strengthen Krell's reputation further.

At the turn of the 21st century, the company diversified into loudspeaker manufacturing, creating the upper series of their renowned LAT (Lossless Acoustic Transducer) speakers, as well as developing the more affordable series of Resolution, thus transforming itself into a full-system solution provider. Then, in 2006, Krell unveiled the Full Balanced Integrated amplifier and an Evolution Series of top amplification above

its long-reigning Class A series.

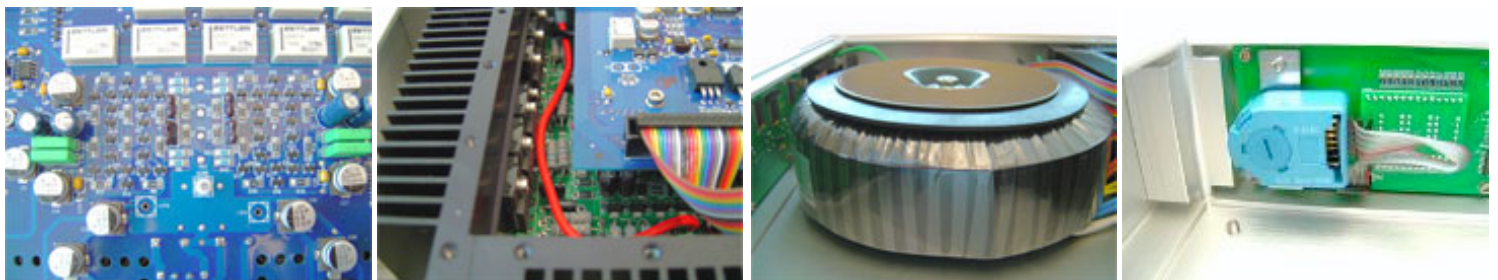
D'Agostino's first integrated amplification effort materialized in 1996 with the KAV-300i. Created to compliment Krell's introduction of the first-ever multi-channel and stereo series of KAV, the 150Wpc/8Ω and 300Wpc/4Ω, 2-channel creature was endowed with a 400VA toroidal transformer. This \$2,395 integrated from Krell was unsettling for what it seemed to promise and sacrifice for both Krell and its loyal customer base. Then, in 2002, the \$2,500 Krell KAV-400xi supplanted the KAV-300i as the company's sole integrated amplifier offering during that time.

Now with a 800VA toroidal transformer, 55000μF of capacitance storage, and 24 bipolar transistor for both channels, the KAV-400xi, though boasting an extraordinarily slim profile, is not only more powerful, it weighs 30lb and is as large as the Wadia 27ix Decoding Computer (review in progress), measuring 17.3 inches wide, 3.5 inches tall and 17 inches deep, occupying the largest of footprint among similarly-priced integrated amplifiers.



Its all-aluminum chassis blocks magnetic interferences from reaching the internal circuitry, individual circuit elements of which are configured in close proximity via Krell's new surface mount technology (SMT), to make for a uniform operating temperature with the shortest signal path.

The topology of this modestly priced unit is endowed with the company's premium, Krell Current Mode technology, which operates the gain stages in the current domain. Together with a class-A biased, full-balanced, direct-coupled design, the KAV-400xi is claimed to offer a wide bandwidth and accurate sonic presentation.



From left to right, the KAV-400xi's front panel is adorned with recessed, silvery small push-buttons for POWER/STAND-BY, an infrared sensor, then input selections, such as B-1 (balanced 1), S-1 (single-ended 1), S-2 and S-3, followed by TAPE, MUTE, the Display, and finally, the machined aluminum volume

knob. A flat, card-like remote control accesses all front-panel functions.

Then, the KAV-400xi's rear panel illustrates a proficient understanding of an integrated amplifier's operability. The WBT binding posts are situated at the far ends, providing for thoughtfulness in a most likely, middle placement of the machine in systems, simultaneously taking advantage of the unit's wideness to put each set of binding posts as near to each speaker as possible.



THE SOUND

Auditioning the KAV-400xi necessitated the involvement of progressive levels of system, so as to exploit the limitations and potentials of a most affordable integrated amplifier from a company known for producing high-cost products.

The KAV-400xi was auditioned in progressive levels of system, beginning with Audio Note's \$4,650 CDT-Two/II, a previous-generation DAC 1.1x Signature, Accoustic Arts' \$5,700 DAC I Mk3, ending with the Wadia 270se CD transport and the 27ix Decoding Computer. First loudspeakers that saw action with the KAV-400xi alternately were the Celestion SL700 and the Genesis G6.1e, finalized by the \$12k GamuT L5.

An integrated amplifier costing \$2.5k is probably indicative, in many readers' mind, to an entry level engineering effort in both quality and quantity, which would lead to the premise that we should all probably give the KAV-400xi the least demanding speaker load to play with. Therefore, to make the KAV-400xi drive a \$10k+ pair of loudspeakers would be more than unreasonable. And that would be true with most companies; but not Krell. True, the KAV-400xi possessed not the most exuberant dispositions in sonics, but I realized quite early in the auditioning process that to underestimate a Krell in its ability to drive speakers is to be mindless of the most fundamental element in this review: that it is none other but a Krell.

It was capable of driving even the most arduous GamuT L5, at an 89dB/4Ω sensitivity, and when the budget integrated was hit with a full-orchestra dynamics, it churned out such juices in driving the

GamuT

that disconcerted me into a temporary state of confusion. “Didn’t these GamuT speakers require the likes of the Audia Flight 100 and the Linn Klimax Chakra 500 Twin to come alive?”

“Yippie!”



Retrospectively, the budget Krell was not devoid of concessions.

While it possessed sufficient power to vanquish even the GamuT into producing a solid soundstaging feat, the KAV-400xi was exposed by all speakers rotated around it for its less delicate bearing as effectuated by the same muscular brutishness. This aspect was further accentuated, when the integrated was made to work with less refined DACs.

For instance, the KAV-400xi’s interaction with a visiting, sub-\$2,000 solid-state DAC hinged on colossal discourtesy, as string and horn sections sound undermanned and ill-performed, albeit a surprisingly respectable showcase of lateral soundstaging. Yet, Audio Note’s \$1,500, tubed DAC 1.1x Signature calmed the integrated amplifier into producing a well-balanced sonics in soundstaging and tonalities, making for a very relaxing and enjoyable presentation. The Krell’s partnership with Accoustic Arts’ \$5,700, DAC I Mk3 that I reviewed in 2005, on the other hand, proved to be most auspicious in the fuller tonality.

In a system where Furutech’s Analog Reference III XLR interconnects and Speaker Reference III served the cabling effort, along with the marque’s Power Reference III powered the digital front end and the KAV-400xi itself, the listening experience became more rewarding.

Having encountered top solid-state designs, like the Audia Flight 100, the GamuT D200 MkII, and the Linn Klimax Chakra 500 Twin, I found the Krell KAV-400xi to be sensitive to choice of cabling. Audio Note’s AN-Vx silver interconnect accentuated a spectrum in the KAV-400xi’s top-end that was not taken well by these ears, while Furutech’s Analog Reference III XLR smoothed out the silver-accentuated imperfections, rendering the Krell integrated immensely more enjoyable. Furthermore, between RCA and XLR, the Krell performed audibly to a higher level with the XLR, producing more contrasting dynamics and a firmer bottom-end.

In regards to silver, likewise was the case with speaker cables, and Furutech’s Speaker Reference III

provided a wholesome synergy with its interconnects, upholding the listenability of the Krell to a great extent with all speakers rotated.

CONCLUSION

Dan D'Agostino capitalized on the vast resources of his enterprise and gave us a budget-priced integrated amplifier; but the irony of the \$2,495 KAV-400xi also lies in its underestimated potential as suggested by its MSRP. For the budget amplifier has been found most gratifying in the company of a \$1,500 tube DAC when driving a pair of \$12k loudspeakers to fullness. I had thought the DK Design integrated was beyond reproach; but who else in the industry is capable of re-defining a product category that it helped define in the first place?

With a continuous pattern of low-profile marketing on the KAV-400xi, a good portion of likely customers for D'Agostino's budget amplifier might have turned out to be his company's existing, high-end clientele base who would use the integrated with comparably priced loudspeaker in their secondary systems.

Simplistically speaking, a capitalist society determines a product's price based on the market's demands of it, and a product supplier's goal is to create products with unique attributes that will serve to enhance their value. What makes me all the merrier, is that after a history of producing very high-profiled products and a business built on the resultant success, Dan D'Agostino continues to not only retain this very affordable product category but also to refine it; for the creation could have easily been upgraded into yet another top Krell concoction before leaving the design bench.

Affordable, possessing a large footprint and generous drive capacity, mates well with cheap tube DAC, gorgeous to look at, and easy to operate, the KAV-400xi is a marvel impossible not to fall in love with.



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