

## GamuT Di150 LE integrated amplifier

**Ken Micallef** | Mar 24, 2017



As *Stereophile's* true cub reporter—sorry, Herb Reichert, you're senior staff!—I work in the domestic fields of the high-end audio landscape. Meanwhile, my fellow *Stereophile* correspondents trot the globe, attending international audio shows, experiencing all the sweet spots offered by such far-flung locales as Munich, Montreal, and Northamptonshire, UK. Am I complaining? Not! But when an audio show of merit invades New York City, still the capital of the civilized world, you can believe I'm there on opening day, pen and pad in hand.

The first rooms on my must-visit list usually include Audio Note UK, DeVore Fidelity, MBL—and, when the gear is warm and the good vibes flowing, as they usually are, Wes Bender Studio NYC.

Consider the typical high-end presentation at an audio show: machines clad in cool-to-the-touch brushed aluminum and other scientifically validated materials, voluptuous women beckoning you into suites hosted by men in suits, and sound and music that may be good, bad, or indifferent.

Wes Bender Studio NYC? Totally different experience. At the 2016 New York Audio Show, Bender provided booze, fun, and high-octane sounds. When I walked into Suite 814 of the Park Lane Hotel, Bender and GamuT's US distributor, Michael Vamos, were partying with the Rolling Stones, Santana's *Abraxas* (on Mobile Fidelity 45rpm LPs), Blood, Sweat & Tears, and singer Vanessa Fernandez's album of Led Zeppelin covers, *When the Levee Breaks*. A washtub overflowed with iced Hacker-Pschorr Weisse Naturtr b (a naturally cloudy *hefeweizen*, or yeasted wheat beer). I couldn't hear everything Bender was saying, but clearly audible were "crazy," "damned shame," and "buy the ticket, man!" Vamos, who resembles the 1970s actor Jan-Michael Vincent, pointed at the tub o' beer. In one corner of the suite, AudioStream.com's Michael Lavorgna, the ever-sly Jana Dagdagan (*Stereophile's* editorial coordinator), and AudioQuest communications VP (and former *Stereophile* staffer) Stephen Mejias smiled at me like characters from *La Dolce Vita*. ZZ Top's "Jesus Just Left Chicago" blasted the boogie. The sound of Bender's all-Gamut system—the center of this surreal, volume-pounding scene—was truly fascinating.

Along the room's long wall, GamuT's RS3i stand-mounted speakers (\$20,990/pair) were getting their mojo workin' via the company's D3i dual-mono line-stage preamplifier (\$8380), D200i dual-mono stereo amplifier (\$13,990), and CD3 CD player (\$7990), all connected via GamuT Reference interconnects, speaker cables, and power cords.

Analog goodness was provided by a Pear Audio Blue Kid Thomas turntable with Cornet 2 tonearm (\$7995), Pear Audio Blue Classic phono stage (\$1995), Pear Audio external power supply (\$1995), and a Transfiguration Proteus cartridge (\$5,999). This mighty system provided gusto and glory, music bouncing off the walls with true force, unerring musicality, and heartfelt fun. I wanted more!

But I was on a quest for the absolute integrated amp. I asked Vamos if GamuT offered a high-powered model of such design. They do: the Di150 LE dual-mono integrated amplifier.

## **Design**

GamuT's Di150 LE (for Limited Edition) is a Danish-built, 59.4-lb, aluminum-encased powerhouse that outputs 180Wpc into 8 ohms, 360Wpc into 4 ohms, or an-ear challenging 700Wpc into 2 ohms. The Di150 boasts a frequency response of 10Hz–50kHz,  $\pm 0.1$  dB—none too shabby! At its center is a circuit topology introduced by GamuT's founder and designer, Ole Lund Christensen.

In the early 1980s, GamuT made amplifiers for Denmark's professional recording studios. Forgoing the usual banks of transistors, which he believed only smeared the music, Christensen instead sourced massive negative-positive-negative MOSFET transistors used in industrial welding, using only one or two per rail. Eventually, GamuT sold these N-channel MOSFET amps to high-end devotees across Europe.

Michael Vamos led me deeper down the rabbit hole of N-channel MOSFET design: "Many amps use up to 48 transistors per channel, which creates a lot of sonic and signal compromises," Vamos claimed. "Whenever you use more than one transistor, they're never matched exactly, and they will sound different. When you listen, especially in the midrange, you will get a phase issue. The transistors aren't reproducing exactly the same in order to get all the power;

they're slightly different. That will muddy the signal. But if only one transistor is reproducing the sound, then it will only reproduce the signal.



"The GamuT MOSFET is ten times the volume of the biggest hi-fi transistor," he continued. "And they're both NPNs, which eliminates the difference of having a positive and a negative transistor. Each NPN is technically and sonically the same. That eliminates crossover distortion." (footnote 1)

Benno Meldgaard, GamuT's chief of design, wrote in an e-mail that "GamuT's single MOSFET is class-A/B design, biased to 14 watts class-A. This is to run the transistors at an optimum temperature that results in the best sound. GamuT also includes NPN bipolar transistors capable of putting out 25 watts of power which drive the huge [N-channel] MOSFET output transistors. And the two [500VA] toroidal transformers contribute greatly to the solid sound quality. [In] the GamuT design, both the negative and the positive rail have . . . MOSFETs that sound exactly [the] same, which results in a shorter pathway, with less components in the pathway, which gives a very low distortion of even-order harmonics."

## Description and Setup

What couldn't be easily driven was my body as, one stairstep at a time, I upended and turned over—and over and over—the Di150's large wooden crate, until I reached my seventh-floor Manhattan crib. Said crate rolled into said crib, I then had trouble releasing the secret panel that would reveal precisely how to uncrate the Di150 LE. After much cursing and sweating on my part, the amplifier sprouted from its sarcophagus of roughhewn wood.

I removed the eight stainless-steel screws that affix the Di150 LE's heavy top plate to its enclosure and peered into its inner workings. Dominating the interior are two massive, Danish-made Noratel toroidal transformers, positioned next to four oversized RIFA capacitors. A handful of smaller Vishay capacitors populate two horizontal circuit boards. The long control rod of an Alps potentiometer ("a special low-resistance version, creating 10dB better signal-to-noise ratio," per Vamos) visually halves the amp's interior. Unusual for any amplifier, no Zobel network is used on the Di150's speaker outputs to keep the amp stable.

Substantial but svelte, heavy-duty but manageable, the Di150 LE slid, with effort, into my Salamander rack, looking quite out of place below my green Shindo Laboratory preamp and power amp. GamuT recommends 100 hours of break-in, which I accomplished via Apple iTunes Shuffle. Thereafter, I left the Di150 powered on 24/7.

The Di150 LE may be a hulking machine, but I believe it would find its place in any décor. Its silver faceplate is offset by a black case—both formal and flashy—and dominated by a large volume-control knob at the center of its display. Flanking the display are two columns of four silver pushbuttons each: on the left, Balance 1, Balance 2, CD, and Dim; on the right, Tuner, Tape, HTH, and Mute. (A tiny toggle switch on the amplifier's rear panel enables HTH—presumably for Home Theater—mode, in which the Di150's preamplifier section is bypassed

so that the user can insert a processor—or, according to Vamos, another preamp, the Di150 then functioning as only a power amp.)



These controls, including Volume, are duplicated on a remote-control handset (included). Though rather cheap-looking, the remote handled all functions without a hitch—and unlike some fancier remotes, its batteries never fell out.

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Footnote 1: A quasi-complementary output stage doesn't intrinsically eliminate crossover distortion, which requires the correct application

of output-stage bias current. But the fact that the two N-channel transistors are by definition perfectly matched does, I believe, confer better open-loop linearity. —**John Atkinson**

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At the top of the Di150 LE's rear panel are two pairs of WBT speaker binding posts. Below those are, from left to right: pairs of unbalanced outputs marked Tape Out and Out; balanced right and left outputs marked R Out and L Out; that tiny HTH toggle; unbalanced HTH, Tape, Tuner, and CD inputs; and two sets of right and left balanced inputs, labeled Bal 1 and Bal 2. In the lower left corner is the IEC mains plug. All balanced outs and ins are XLR plugs and sockets, respectively; unbalanced connections are Neutrik-made RCAs. And each side panel of the Di150 LE is actually a massive heatsink.

Michael Vamos told me that GamuT's goal for the Di150 was to "combine our D3i dual-mono line stage preamplifier [\$8380] and D200i dual-mono stereo amplifier [\$13,990] in one smaller package with slightly lower output power." That was the amplification combo I'd enjoyed in Wes Bender's room at the Park Lane Hotel. Could GamuT pack \$22,370 worth of audio into an \$12,990 package?

### **Listening**

Sometimes a component arrives in my penthouse listening den, and the sheer difference of sound compared to my reference gear makes me think, *Why did I ask to review this thing?!?* That was my first response to hearing the GamuT Di150 LE. With a generic, nothing-special power cord I had on hand—instead of the IsoTek power cord included with my review sample and, reportedly, every GamuT amplifier sold in the US—the Di150 LE's sound lacked body, warmth, and weight. Swapping out the generic cord for the fat, purple IsoTek

snake made a difference: Bass notes now landed with a wallop, and bass depth and extension were considerably increased. Soundstage scale grew to commensurate proportions. And while I would never say that the GamuT sounds like a tube amp, the IsoTek cord endowed its sound with indisputable liquidity. The IsoTek remained in place for the remainder of my listening.



**With the DeVore Fidelity Orangutan O/93 and [PS Audio NuWave](#):** Is there a greater living rock star than Tom Petty? Today, as they enter their fifth decade, the 66-year-old Floridian and his band, the Heartbreakers, are still producing profound rock, and there's no better sign of their supremacy than *Mojo* (CD, Reprise 523971). Described by Petty as the kind of music his band plays when no one else is listening, *Mojo* contains 16 songs, brilliantly performed and exceptionally recorded. Released in 2010, *Mojo* never gets old.

With *Mojo*, the GamuT declared itself capable of going head-to-head with tube amps, the music almost blooming like a fairy-dusted single-ended-triode tube amp, Ron Blair's tough bass notes enveloping me in that Florida swamp stench. Mike Campbell's guitar was pure acetylene burn, and I can't remember Steve Ferrone's two-and-four snare-drum *pop!* ever sounding quite so meaty. Through the GamuT, *Mojo* was all Cadillac cruise control on some melting-asphalt



Interstate, the air humid and dense with bugs, the beat all-encompassing. The GamuT grooved!

My DeVore Fidelity Orangutan O/93s loved the GamuT's beefy transformers: the big two-way speakers went as deep and low as I've heard them go. CD after CD, the GamuT rendered significant bass tonnage—when those tons were actually encoded on the disc. The GamuT's midrange-through-treble sound was tonally open, creating as clear an aural window on the music as I've heard in my seventh-floor pauper's penthouse. Album after album, the GamuT smacked me up and down, surprising me with fresh sonic goodies from practically every disc.

Early on, multiple traits—a GamuT house sound?—emerged: a hard-charging, forceful delivery of the music, strong micro- and macrodynamics, stupendous bass reproduction, a wide and layered soundstage, and what some call "black" backgrounds: music from digital sources that was free of noise or digital nasties, and often floated free of the speakers' physical positions. The GamuT pulled every last digit from my PS Audio NuWave DAC, whose warmish, darker-than-neutral tonality was complemented by the great apparent clarity of the muscular Dane.

Hoping to unearth more of the GamuT's secrets, I played many CDs, including: PJ Harvey's *Dry* (Island 162-535-001-2) and her EP *Man-Size* (Island PRCD 6786-2); Jeff "Tain" Watts's *Folk's Songs* (Dark Key Music 3360); Garbage's *Beautiful Garbage* (Interscope 0694931152); Ali Jackson, Aaron Goldberg, and Omer Avital's *Yes!* (Sunnyside SSC 1271); and Luciana Souza's *Brazilian Duos* (Sunnyside SSC 1100). Every time, the GamuT was transparent to the source, yet with uniformly solid traits: the most potent delivery of music ever in my system; colossal images that, while fun and revealing, were perhaps larger than life; fantastic speed and dynamics; and—here I go again—velvet-black backgrounds. The Di150 LE played the bejesus out of

well-recorded CDs but refused to smear lipstick on pigs: such ratty-sounding CDs as drummer Dennis Chambers's *Planet Earth* (BHM 1005-2), and pianist Vladimir Ashkenazy performing Chopin's *Polonaises* (London 421 032-2)—both of which are tinny-sounding audio dogs. And while the GamuT's sound was unvaryingly transparent, it consistently lent its traits of power, speed, enormous images, and outstanding bass-frequency expression to every CD worth its polycarbonate.

**With the Elac Debut B6 and PS Audio:** [Herb Reichert raved](#) about Elac's Debut B6 stand-mounted speakers (\$279/pair), so, for fun, I drove them with the GamuT beefcake. The Elacs have been in my system for many months, and I find that they sound somewhat processed overall, with a hard-focused top end and copiously warm, woolly bass response. The punchy Debut B6es took to the GamuT right away, in a love affair of lowdown bass frequencies. This terrific pairing resulted in a level of *jump!* even more energetic and propulsive than that produced by the GamuT and DeVore O/93s. From Tom Petty to PJ Harvey, and with the little Elacs pumping mad music juice, the GamuT Di150 LE blew the lid off my Greenwich Village joint.

**With the Wharfedale Diamond 225 and PS Audio:** Herb Reichert is writing a Follow-Up to [my review](#) of NEAT Acoustics' Iota Alpha loudspeaker; I'm doing Herb a solid by writing a Follow-Up to [">his review](#) of the Wharfedale Diamond 225 stand-mounted speakers (\$449/pair). The Wharfedales don't boogie hard—they're more cerebral and cool, cleaning up PJ Harvey's mouth when she moans about her "Man-Size." But there's no denying the Diamond 225's accuracy and lack of colorations—more of Luciana Souza's lovely *Brazilian Duos* is revealed through the Wharfedale than through either the Elac Debut B6 or DeVore's Orangutan O/93.



The jazz album *Yes!* was also rendered with sparkling lucidity. And, once again, the GamuT delivered large-scale images, along with great speed, drama, and superlative dynamics.

**With the Wharfedale Diamond 225, Kuzma Stabi S and Stogi, and Shindo Allegro:** I ran my Shindo Laboratory Allegro preamp into the GamuT via the latter's HTH function, turning the Di150 LE into a power amplifier. As Fleet Foxes' eponymous debut album played (LP, Bella Union BELLAV 167), the GamuT retained its fondness for large spatial scale and killer dynamics and forcefulness—now allied to more generous tonal saturation, more appealing textures, and greater senses of liquidity and melodic flow. Bass notes lost some of their muscular grip, trading accuracy for a warmer cushion through the Shindo, while retaining the pristine beauty and majesty of the Foxes' choirboy voices. Most impressively, the GamuT enlarged the images and magnified the exquisite textures created by the Shindo—and it doesn't get better than that.

## Conclusions

Its price of \$12,990 pits the GamuT Di150 LE against some serious integrated amplifiers, including the [Mark Levinson No.585](#) (\$12,000), the [Ayre Acoustics AX-5 Twenty](#) (\$12,950), and the [Musical Fidelity Nu-Vista 800](#) (\$12,999)—all of which are listed in Class A of *Stereophile's* "Recommended Components." I've never heard in my system another amplifier, tubed or solid-state, that provided such enormous images or such speed, dynamics, and pure force.

Emanating from "black" backgrounds of noiseless space, notes flew from the Di150 LE with purpose and punch, whether from LP or CD.

In my opinion, the best solid-state still can't compare with the best tubed amplification; at least, no solid-state amp has bested my tubed Shindo separates (though the [Spec RPA-W7EX Real-Sound](#) power amplifier came close). When I joined the Shindo Allegro preamplifier to the GamuT Di150's power-amp section, I felt I was getting a taste of what the Shindo preamp might sound like on steroids—its lovely tonality, texture, and naturalness were fortified by a brute-force amp tempered by quick wits.

Given its ability to drive any loudspeaker, its even-keeled tonality, its remarkable bass reproduction, and its versatility and cool running (it ran warm, never hot), the GamuT Di150 LE should make every Dane proud—and Wes Bender, too.

## GamuT Di150 LE integrated amplifier Specifications

**Description:** Solid-state, class-AB, integrated amplifier. Analog inputs: 2 balanced (XLR), 4 unbalanced (RCA). Amplifier outputs: 1 balanced (XLR), 1 unbalanced (RCA), 1 tape (RCA), 1 speaker. Power output: 180Wpc into 8 ohms (22.55dBW), 360Wpc into 4 ohms (22.55dBW), 700Wpc into 2 ohms (22.4dBW). Frequency response: 10Hz–50kHz,  $\pm 0.1$ dB. Distortion: 1kHz,  $>0.05\%$  (mainly second harmonic).

Signal/noise: >100dB, A-weighted. Input impedance: 20k ohms unbalanced, 40k ohms balanced. Line output impedance: 75 ohms unbalanced, 150 ohms balanced. Power consumption: 1000VA.

**Dimensions:** 16.93" (430mm) W by 6.22" (158mm) H by 17.32" (440mm) D. Weight: 59.4 lbs (27kg) net, 68.2 lbs (31kg) shipping.

**Finishes:** Black- or Silver-anodized aluminum.

Warranty: 5 years, parts & labor.

**Manufacturer:** GamuT Audio, Skolegade 9, DK-6818 èrre, Denmark.

Tel: (45) 70-20-22-68.