

WORTHWHILE PETITE PROJECT

I am a retired (on disability) music lover who doesn't have bucketloads of disposable income to spend on my passion. So after DIYing a pair of speakers with Fostex FE166E speakers, I was most intrigued with Tim Smith's PP Pentode Petite amplifier project in June 2005 *audioXpress*. It seemed that this type of amp would be a superb match for my speakers.

Almost right off the bat I realized that building an amp from scratch, even though Tim's article claimed it would be suitable for a novice, would be quite some undertaking. Nevertheless I started assembling parts and almost from the get-go e-mailing Tim with questions—some that now seem a bit absurd. Tim was very forthright in answering all my questions and offering suggestions and never once “talked down” to me. He even apologized for taking a week to answer one of my questions when he was out of the country on business!

Well, having now finished the amp, I can say that the project was worth all the effort. It mates synergistically with my full-range speakers and is more musical and satisfying than the SET “spud” amp I was using previously. It has also added some very wonderful “authority” that I never had before.

I had to learn metal work, woodwork for the base, and a whole lot of electrical knowledge. *audioXpress* was a factor in my quest for knowledge with all the many DIY articles over the last months. I have found a new passion. Building tube electronics! I look forward to more articles of interest in your magazine.

Ron Steed
Nanaimo, BC
Canada

REGULATORS REDUX

I have a question regarding the “High Performance Regulators” featured in

the Jan. 1995 issue of *Audio Amateur* by Gary Galo, Walt Jung, and Jan Didden. I built a pair of the “POOGE” 5.515 regulators for my preamp and they have been rock-solid performers for years, but now I am starting a new line stage that requires 30V.

My question to Mr. Jung is, can the 5.515 regulator be easily changed for a 30V output? Thanks so much both for an answer and for those regulators.

Larry Campbell
Englewood, Fla.

Walt Jung replies:

Regarding Fig. 3 of “High Performance Regulators, Part 1,” very few changes are necessary to reach a 30V output. The transistors are rated for 50V or more, save Q855. This part should be changed to a 2N5210, as per the original diagram. That should do it for the active parts.

To program the output voltage for 30V, the R861 value should increase to a value such that the ratio of R861/R863 is close to 3, inasmuch as the reference voltage seen at the base of Q855 is about 7.5V. I suggest an R861 3.01k value as a starting point. Note that the tolerance of the 6.9V LM329 could mess up this nice relationship, so a check of Q855's base voltage can verify if it deviates from the 7.5V. Again, trim the R861/R863 ratio, if necessary.

This describes changes relative to the positive regulator. To modify a negative output as per Fig. 4, substitute 2N5210s for the 2N5089s, and adjust R862 as above, to yield a -30V output.

Of course, it goes without saying that any caps on the higher voltage output line(s) should be rated for appreciably higher than 30V, for example 50V. It is good to hear that these circuits are working well for you after all these years!

ADCOM 565 MOD

I finally received the circuit boards to

use as substitutes for all the perfboards Gary Galo used (Nov. '03–Feb. '04), and I am in the midst of making the Adcom 565 Mods. I note that removal of J7 and J9 disconnects D911 and D912. I went through the articles and Xpress Mail and could not find any reference to these diodes. I can see no reason for disconnecting these diodes and am wondering if it was intentional?

Chet Staley
cstaley12@comcast.net

Gary Galo responds:

D911 and D912 are discussed in Part 2, page 49 of the Dec. 2003 issue. As I noted under “Wiring the Regulator,” I have never actually seen these diodes in a GFP-565 preamp, even though they are shown in the schematic and the PC layout. J7 and J9 were removed to eliminate extraneous power supply traces in the preamp. If your preamp does have these diodes, simply move them to any convenient location along the main power supply bus, as noted in the last bullet on page 49.

I would like to take this opportunity to correct an error in Part 3. On page 44 (Jan. 2004) I wrote “The AD711KN has a unique feature: the output can be taken from compensation pin 5...” AD711KN is incorrect. This should be the AD744KN noted in the previous sentence. I thank Chuck Hansen for bringing this error to my attention some time ago.

COMPUTER-AIDED DESIGN

Did Bill Fitzmaurice (“David: The Giant Killer,” Feb. '06, p. 10) use computer drawing software, and if so which one? How about an article on CAD products available for the (hobby) speaker builder? It would be great to get some advice on this topic—if you have any leads and/or suggestions, please let me know.

Thanks,
Andy Janes
tajanes@comcast.net

Bill Fitzmaurice responds:

I now do my drawings with photo software (MS Picture It); you'd be amazed what you can do once you figure out how, and it's much more intuitive than any CAD programs that I've come across. The 3D views are done with SketchUp software (www.LastSoftware.com/SketchUp), but not by myself; I have a friend who does them for me. I'm comfortable with sawdust and glue, but not so much with computers. I only just put aside the pencil and paper for good a few months ago.

SPEAKER KIT?

I am a long-time subscriber and am very interested in the David horn speaker (by Bill Fitzmaurice) in the February 2006 issue of *audioXpress* (p. 10). However, I do not have the necessary equipment or woodworking expertise to build such a project. Will this speaker be built as a kit in the future?

*Harold Cooper
Albuquerque, NM*

Bill Fitzmaurice responds:

I don't have any plans to offer a kit myself. Your best bet is to contact someone nearby you willing to build them for you. I'd try the Madisound and Parts Express forums or my own forum at www.audioundtable.com/BillFitzmaurice/.

CLASS D FAN

I have been a subscriber for some years and have a request for new product coverage in your magazine. The Hypex UcD Amplifier modules (i.e., UcD180 and its new brother the UcD 400) seem to be taking the DIY world by storm. I would like to see some coverage on these class D amps.

The only set I have heard were quite excellent-sounding, so much so that I was shocked because I thought class D would sound bad. Currently, I am saving to purchase the parts to build a UcD 400-based stereo amp, but it will be some time on my currently limited budget.

Class D, and from what I can tell the Hypex modules (one of a few modules available to the DIY person), is changing the way we do music and would be of interest as an article in your magazine.

*Greg Starkey
New Baltimore, MI*

The VTV Audiophile & Music Expo is being held from May 6-7, at the Embassy Suites Hotel in Piscataway, N.J. Featuring exhibitor and vendor rates, the EXPO is a sales venue for small to medium-sized manufacturers and dealers of audiophile equipment, musical instrument amps, guitars, and more, as well as those selling quality vintage and used gear. For more information on this opportunity to meet your customers in person, contact Charlie Kittleson at cathode99X@vacuumtube.com.

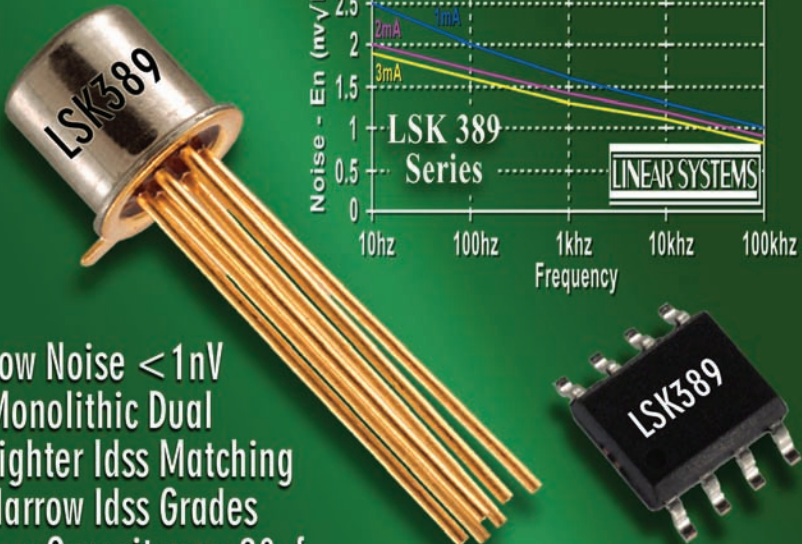
New from **D2Audio** is a real-time, all digital feedback amplifier that automatically corrects the audio amplifier signal, using a new breakthrough in closed-loop terminology. These second-generation DAE-2 products integrate full-bandwidth digital feedback and an advanced feedforward for digital power correction capability. The family of products, including the D2-91413-LR and D2-91433-LR, feature embedded digital signal processing, scalable power and performance solutions, adaptive sample rate conversion, and more. To learn more, visit

www.d2audio.com.

The MC-884 in-wall speaker, from **RBH Sound**, features two 8" aluminum woofers, a 2½" aluminum dome midrange, and a 1" aluminum dome tweeter. Handling up to 200W of power, the MC-884 measures 10¼" W × 19" H × 3¾" D. The tweeter is designed to swivel and includes protection to avoid being over-driven. Also available is the A-414 in-wall center channel speaker, with an off-the-floor, center channel/LCR solution and a 1" fabric dome tweeter and two 4" polypropylene woofers. Using a woofer-tweeter-woofer configuration, the A-414 increases efficiency and power handling up to 130W, which produces a more controlled dispersion pattern. info@rbhsound.com.

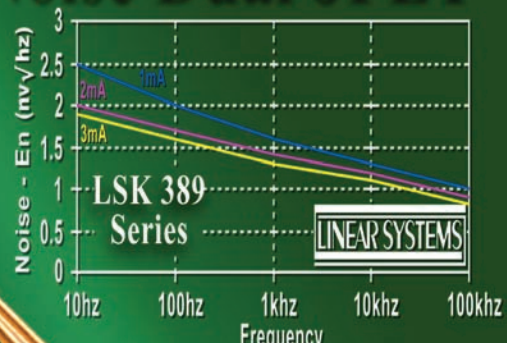
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Morel Acoustics USA announced a mutual agreement with Israeli-based **Morel**. Morel Acoustics USA decided to discontinue using the Morel name and will in the future operate under the **Renaissance Audio Group** name only. Renaissance Audio Group, a division of Morel Acoustics USA, has been in existence for over 16 years and will now become the new business name for the company. All previous Morel Acoustics USA products will now be labeled Renaissance Audio Group. For more, visit the new Renaissance Audio Group website at www.renaudio.com, or address correspondence directly to info@renaudio.com.

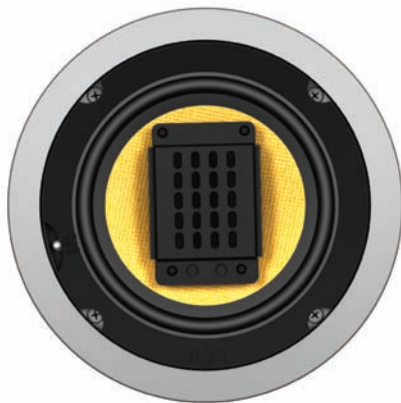
Mouser Electronics entered into a global distribution deal with interconnect systems manufacturer **Harwin, Inc.** Mouser will feature Harwin's professional range Datamate connectors, which carry 3.0A per contact, with both latching and jackscrew options for high-vibration environments. Designed for wire-to-wire, wire-to-board, and board-to-board applications, the Datamate series have applications for both PC tail and SMT options. Also signing a deal with Mouser was **Digi International**, a manufacturer of ARM-based embedded modules. Digi products include device, terminal and secure console management servers; multiport serial cards; USB devices, and more. To learn more, visit www.mouser.com.

Scantek's ROGA MI-17 and ROGA RG-50 ¼" measuring microphones are easily attached to existing data acquisition systems,



sound cards, and so on. Powered by constant-current sources, the MI-17 is a type 1 compatible mike, while the RG-50 is Type 2. Call (800) 224-3813 for more information, or visit www.scantekinc.com.

The first dual-channel custom loudspeaker that correctly reproduces information from two channel stereo sources, the PD-6CS, is now available from **Bohlender Graebener**. Accurately integrating signals from both stereo channels into one, the PD-6CS can deliver true high fidelity from a single loud-



speaker, and features an exclusive patented planar ribbon tweeter as well as a dual voice coil Kevlar cone woofer with rubber surround. BG also unveiled five new models in its Radia Series of in-wall loudspeakers, which feature a variety of new driver technologies and design configurations. For more, visit www.bgcorp.com. *aX*



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