
Subject: 4-transistor linestage

Posted by [Thrint](#) on Wed, 17 Aug 2005 23:54:22 GMT

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OK, back to the MOSFET cascode buffer. Some nice cascode properties: very low input capacitance. The lower device is screened by the upper, and it (globally) is acting as a buffer/source follower. Instead of rigging the lower gate to the current set resistor(as in a CCS), it is the input from the volume control. Current is regulated by a full-circuit CCS on a negative rail. +/- 25 volts should be adequate. 5-10 uF of coupling cap, and at low voltage. Always wondered what a good L-C filter in a SS amp's power supply would do. Of course, we'll need two of them for the bi-polar rails. Of course, we'll do rectification with vacuum diodes, preferably IDH cathodes, like 6AX4's. The trouble is that my sleeve of DN2540N5 MOSFET's dissappeared in my move.....(along with my coffee can full of salvaged photo flash caps from disposable cameras. regards, Douglas

Subject: Re: 4-transistor linestage

Posted by [colinhester](#) on Thu, 18 Aug 2005 00:12:44 GMT

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I'd love to build one. As for the MOSFETs and caps, did your wife help you "pack?"

Subject: Re: 4-transistor linestage

Posted by [Manualblock](#) on Thu, 18 Aug 2005 18:52:34 GMT

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Man T; you hop around more than a flea on a griddle. Whats with this SS stuff now; are you trying to experiment or is this something you heard that had a great sound? I admitt, I am baffled. People have to have reasons for why they do stuff.

Subject: Re: 4-transistor linestage

Posted by [Thrint](#) on Fri, 19 Aug 2005 23:38:36 GMT

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The SS plate load sounds good. A few have asked me about unity gain linestages. Some of my friends have TX linestages. I think the buffer is a critical part of the job. Sooooo, how simple can it get? The cascode is a complication, but it gets around the variable capacitance induced by varying D-S voltage, and G-D voltage. Partially, it is an experiment to take something which is not

'supposed' to sound good and demonstrate the conventional wisdom isn't so wise afterall. Like PP Pentodes, no? regards, Douglas

Subject: Re: 4-transistor linestage
Posted by [Manualblock](#) on Sat, 20 Aug 2005 18:42:14 GMT
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Boy that is some can of worms you are opening there. But I am not the right guy to discuss this; I still think the Dyna ST 70's sound pretty good. My favorite amp sound so far is the Fisher 50AZ and the Threshold Class A transistor amps.

Subject: and an option
Posted by [Thrint](#) on Mon, 22 Aug 2005 21:45:15 GMT
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Hey-Hey!!!, I am exploring a 1:1 bifilar output TX for this beastie. It will also serve to bias it. No second CCS required. Intact audio is the likely winner of these OPTx's. Bit of a research project I think. Requires a better filter for the negative rail(and a lot smaller voltage too). regards, Douglas
