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Subject: Re: Questions/Guenivere

Posted by [Damir](#) on Sat, 01 Jan 2005 20:04:37 GMT

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If we use "normal", anode output, then output impedance of the stage is anode resistance in our working point (about 2,5 kOhms, or little less) in parallel with anode load (in this case CCS with about 1MOhms resistance). Then our  $R_{out} = r_a \sim 2k5$ . When we use "mu" (or Source) output, then our  $R_{out}$  is somewhat lower. I have no experience with depletion-mode mosfets and can't say exact number, but I suspect not by much (simple CCS). The "rule of thumb" for the impedance "tuning" is at least 10:1, or we can "drive" about 25kOhms input impedance. That means every "normal" tube amp with  $R_{in}$  of 47k or more can be used with our preamp. And few words about actual building - IMO, it's very easy to build nice oscillator, but not so easy "clean" preamp. I'd use resistor "stoppers" on everything. Grid stopper (say 1k) on the 5687 (solder close to the pin, no lead). Then, Gate stopper (1k), and our P1 substitute with required resistor (adjusted on test). This resistor (between the Source and anode pin) solder in a way that both leads are very short. I'd use resistor between B+ and Drain, say 220 Ohms, again - short lead to the mosfet. And finally, I'd use output resistor, between Source and C2, say 220 Ohms again (close to S). That resistor would raise output impedance a bit, but it's a precaution against oscillations. Maybe I'm overly paranoid and have a bad luck before? Doug, feel free to jump in with your experience/opinion ...

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