Subject: Merlin front end simlple-er
Posted by PakProtector on Sun, 18 Dec 2005 12:36:55 GMT
View Forum Message <> Reply to Message

Hey-Hey!!!,Since all the E-Linear S265Q should be delivered by Monday, there are a few options on the complex looking front end.First is to wait while a PCB is developed for the V2. This is what I am currently listening to, but it looks intimidating on paper...:)Second is a pair of pentodes. EF184, 6AC7(mmmmhhhhh...octal!), 6AU6 or 12BY7 come to mind. This option leaves a single CCS for the cathodes, and g2 done with dropping R and cathode coupling cap. Frobably a few uF required.Third would be to use a voltage divider for the upper gate. Keep the gate cathode node coupled with a cap, similar to the pentode mode. Haven't tried this one, since the MOSFET's no longer look so complicated. Just size the voltage divider to run a mA or so, and keep the low-pass R-C at something below 15 cps.I am putting a few of these to paper and pdf, so look at projects on Monday. Probably going to include a few on cascode plate curves...:)cheers,Douglas

Subject: Re: Merlin front end simlple-er
Posted by Damir on Sun, 18 Dec 2005 16:22:32 GMT
View Forum Message <> Reply to Message

Cascode plate curves would be nice:-).And about simplifications - maybe the best would be to first find out is simplifications (for example, simple voltage divider in the place of CCS) much worse solution and what are the (sound) differences?But, with developed PCB for full version it`ll be easy enough to build original version...

Subject: Pentode front end
Posted by PakProtector on Thu, 22 Dec 2005 00:02:42 GMT
View Forum Message <> Reply to Message

Hey-Hey!!!,In the original amp, built with a 290V B+ for its 1619 finals, I liked the 6AU6 a lot. I upgraded the output Iron from the little Z565 to the E-Linear modified Peerless S265. I saw no reason to swap out the Iron and went on to play with the cascode.The cascode has the advantage in the single series path, where the pentode has g2 in parallel with the plate(on theway to the cathode). Been wanting to experiment with the pentode again. Mounting two of them allows the switch to triodes if the hybrid front end is employed. Easy as strapping the pentodes as triodes, and adding the extra hardware.But which pentode? low noise is always good, and plenty of gm so a low-value plate load can be employed and do best interacting with the grid choke at LF. I have a bunch of 6CL6 I'd like to play with. Looking for the same sort of characteristics as I'd look for in a power final. A low mug1-g2 for one. The EF184 is 50+, the 12BY7 is ~30. Looks like 6CL6 is ~20. The g2 current is more constant and to lower plate voltages with this sort of tube than the higher triode mu types. I think it will be fine. Unfortuneately the CB and Ham guys have put this tube in

demand. The 6CL6's anode Z is a comfortably high 150kOhm, and I don't have to worry about a MOSFET's gate-source voltage sensitivity. The higher voltage ones seem to have a 30V limit instead of the usual 20.cheers,Douglas

---

Subject: Pentode front end
Posted by PakProtector on Thu, 22 Dec 2005 00:02:42 GMT
View Forum Message <> Reply to Message

Hey-Hey!!!,In the original amp, built with a 290V B+ for its 1619 finals, I liked the 6AU6 a lot. I upgraded the output Iron from the little Z565 to the E-Linear modified Peerless S265. I saw no reason to swap out the Iron and went on to play with the cascode.The cascode has the advantage in the single series path, where the pentode has g2 in parallel with the plate(on theway to the cathode). Been wanting to experiment with the pentode again. Mounting two of them allows the switch to triodes if the hybrid front end is employed. Easy as strapping the pentodes as triodes, and adding the extra hardware.But which pentode? low noise is always good, and plenty of gm so a low-value plate load can be employed and do best interacting with the grid choke at LF. I have a bunch of 6CL6 I'd like to play with. Looking for the same sort of characteristics as I'd look for in a power final. A low mug1-g2 for one. The EF184 is 50+, the 12BY7 is ~30. Looks like 6CL6 is ~20. The g2 current is more constant and to lower plate voltages with this sort of tube than the higher triode mu types. I think it will be fine. Unfortuneately the CB and Ham guys have put this tube in demand. The 6CL6's anode Z is a comfortably high 150kOhm, and I don't have to worry about a MOSFET's gate-source voltage sensitivity. The higher voltage ones seem to have a 30V limit instead of the usual 20.cheers,Douglas

---

Subject: Pentode front end
Posted by PakProtector on Thu, 22 Dec 2005 00:02:42 GMT
View Forum Message <> Reply to Message

Hey-Hey!!!,In the original amp, built with a 290V B+ for its 1619 finals, I liked the 6AU6 a lot. I upgraded the output Iron from the little Z565 to the E-Linear modified Peerless S265. I saw no reason to swap out the Iron and went on to play with the cascode.The cascode has the advantage in the single series path, where the pentode has g2 in parallel with the plate(on theway to the cathode). Been wanting to experiment with the pentode again. Mounting two of them allows the switch to triodes if the hybrid front end is employed. Easy as strapping the pentodes as triodes, and adding the extra hardware.But which pentode? low noise is always good, and plenty of gm so a low-value plate load can be employed and do best interacting with the grid choke at LF. I have a bunch of 6CL6 I'd like to play with. Looking for the same sort of characteristics as I'd look for in a power final. A low mug1-g2 for one. The EF184 is 50+, the 12BY7 is ~30. Looks like 6CL6 is ~20. The g2 current is more constant and to lower plate voltages with this sort of tube than the higher triode mu types. I think it will be fine. Unfortuneately the CB and Ham guys have put this tube in demand. The 6CL6's anode Z is a comfortably high 150kOhm, and I don't have to worry about a

MOSFET's gate-source voltage sensitivity. The higher voltage ones seem to have a 30V limit instead of the usual 20.cheers,Douglas