
Subject: KT120 Class A U/L Mono-Blocks
Posted by [gofar99](#) on Wed, 20 Jul 2011 01:35:25 GMT
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Hi music lovers, I have been working on a pair of KT120 Push-Pull Class A U/L mono blocks for some time. As soon as the tubes became available I wanted to try them. Some of you may have seen the amps at the LSAF. Since then I have been tweaking them to get them up to the power they should. Well they now can deliver 45 watts RMS into 8 ohms before going sour. This is great, except the tubes are not as linear as some other members of the KT family. Without using huge amounts of NFB the compromise I reached was extremely low (under 0.25%) distortion at 1 watt, under 1% at 10 watts, 1.5% at 20, and increasing linearly to 4% at 40 watts. The sound is quite good, but not IMHO as good as the EL34 and KT88 Oddblocks. A bit more "clinical" or less warm, than the smaller amps. Then again, for power they can't be beat with any other valve class A design I know of. Large, robust sound. I'll post the revised schematic in few days.

Subject: Re: KT120 Class A U/L Mono-Blocks
Posted by [gofar99](#) on Fri, 02 Sep 2011 19:25:35 GMT
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Hi All, An update on the KT120 mono-blocks. These are tubes you can love to hate. As I mentioned in the earlier post they are not as linear as most others in the KT series. Another diyer I confer with from overseas came up with similar results and conclusions. But all is not lost. It seems that without going into complicated designs you can come up with a powerful amp. You can take your choice though, really clean up to 15-20 watts and so-so at the top or a little higher level of distortion that rises more or less linearly but ends up a little less than the alternative build. I like the lower distortion at normal levels as that is where most listening takes place. I can get distortion below 1% out to 15 wrms and 2.6% to 25 wrms, but at 45 wrms it is 6.2%. At 10 watts it is .6%. These numbers are not bad for a amp with nearly no NFB, but other members of the KT family can do better within their power ratings. Band width is excellent less than 0.1db (+or-) from 20HZ to 30KHZ. Only down .16 db at 10HZ. The -3dbv point on the high end is 53KHZ. S/N is over 86 db at one watt. Clipping BTW is at 55 watts and actually it is compressing from about 50 on to that point.

More study and evaluations to go, but IMHO, having a sole source for the tubes is their downfall.

Subject: Re: KT120 Class A U/L Mono-Blocks
Posted by [gofar99](#) on Tue, 06 Sep 2011 22:52:44 GMT
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Hi everyone, I have tamed the beasts. It is rather techie and you can PM me if you want the details, but now the amps deliver about what I think they should and sound great to boot. Distortion stays below 2% all the way to 35 watts RMS and is between 3-4 at 45 watts RMS. At

50 it is still only 8%. Remember this is for a class A tube amp. Response is now ruler flat from 10HZ to past 30K (+/- 0.15db) and only down 0.34 db at 40K. At 100K it is -6.05 db. With all the heat and the high end performance they could double as combination microwave / toaster ovens Really not true, but they are hugely powerful and well behaved now.

Subject: Re: KT120 Class A U/L Mono-Blocks

Posted by [Wayne Parham](#) on Wed, 07 Sep 2011 02:45:48 GMT

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I saw your last post, was going to reply and then got busy and forgot. So you like the KT120, do you? How do you think it compares to say a KT88 or KT90? I mean, if you only needed the power of a KT88, would you prefer it? Or would you run the KT120 instead, even at lower power levels?

Subject: Re: KT120 Class A U/L Mono-Blocks

Posted by [gofar99](#) on Wed, 07 Sep 2011 17:47:45 GMT

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Hi Wayne, The KT120s are quite excellent and sound much better than I ever thought they would. And yes I set up the KT120 amps for use with KT88s. Using the 3.4K transformers the KT88s need to use the 4 ohm taps for 8 ohm loads for best results. This is really no big thing unless you have 4 ohm speakers. When I tested the KT88s in the KT120 amps the results were Superior. The distortion at one watt was at the limits of my gear at 0.05%, 10 watts were 0.33%, 20 watts were 0.9% and 25 (the rated power) was at 1.5%. It just hits 3% at 30 wrms (5 watts over the rating I place on them). That's all good, but the sound while quite excellent, was not as good as in the amps designed for them (the Oddblocks). Now back to the question, no, I think the KT88s are better, mostly because you can choose your tubes, the KT120s have only one brand and type. Perhaps if they catch on things might be different. Does that mean that the KT120 amps are inferior, hardly. They rank right up way near the top for what I have listened to. But my personal favorite remains the Oddblocks with the JJ Blue glass KT88s. Sort of a do you like chocolate or vanilla?

Subject: Re: KT120 Class A U/L Mono-Blocks

Posted by [Wayne Parham](#) on Wed, 07 Sep 2011 19:29:00 GMT

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Yeah, I hear you. So much of it really does boil down to a chocolate or vanilla thing. Can't wait to hear 'em! Didn't really get a chance to listen long last May, so I'll have to remedy that and spend some time with one of them soon.

Subject: Re: KT120 Class A U/L Mono-Blocks
Posted by [gofar99](#) on Fri, 09 Sep 2011 23:18:55 GMT
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Hi All, By the time LSAF gets here there may well be some production models of the amps. The prototypes are on their way to some listeners to see if they are as good as I think they are. The UPS guy will get a hernia from this shipment for when they packed them the box weighed 72 pounds. The amps BTW weigh 30.2 pounds each.
