



## SMPS tests

Then comes a group of designers having decades of experience with high quality audio amplifiers presenting unusual characteristics of a very dynamic (va

All other qualities like highest efficiency, particular small size/weight, very low price, power levels, safety issues etc. are only secondary concerns or trivial  
🤔 The problem for them is then that the bulk production is geared towards the mainstream types and few SMPS designers are particularly knowledgeable al  
I have seen SMPS designed for dedicated audio amplifier use in the sense of output voltage levels (also symmetrical) and power. I did not find mentioning

I know the market is rather limited but we need someone designing dedicated audio amplifier SMPS at a decent price. And, it is not as trivial as it seems.

### **Test of loop reaction:**

page 65-66

<https://www.diyaudio.com/forums/class-d/309813-wrong-tpa3255-66.html>



## SMPS tests

power per channel  
69,8896

IA - MAX TEST

Current (A)	Calc. Watts	comments
6,84	191,9988	no hick up
6,9	200,514	no hick up

PSU 1  
PSU 2

realistic. Check how the output voltage with higher loading for a start sags, then starts increasing and with some oscillation returns to the initial voltage. The resonator burst amplitude such that the amplifier output is at a defined output power level. Suggested 50% of full output power and 100Hz frequency. Then run in a reasonable range) you can find a reasonable capacitance value. Smaller SMPS output voltage swing is better.

massive production out east, SMPS also became very price competitive.

Continuous PSU for Class-D Amplifier Reference Design | TI.com

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rying) power consumption. They notice the new power conversion technology and think: "that we can probably use as well". The problem is only that their mair

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bout audio amplifier needs. This is where we are today.

; of particular noise/EMI reduction means or any strong attention to dynamic properties.

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response time is the time until the voltage no longer sags.

o input signal  $\leftrightarrow$  input signal for defined output power and watch how the SMPS output voltage sags every time a signal burst starts. The response time is the ti

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1 wishes are little noise and fast response (in order to maintain the supply voltages constant).

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me until the voltage no longer sags.