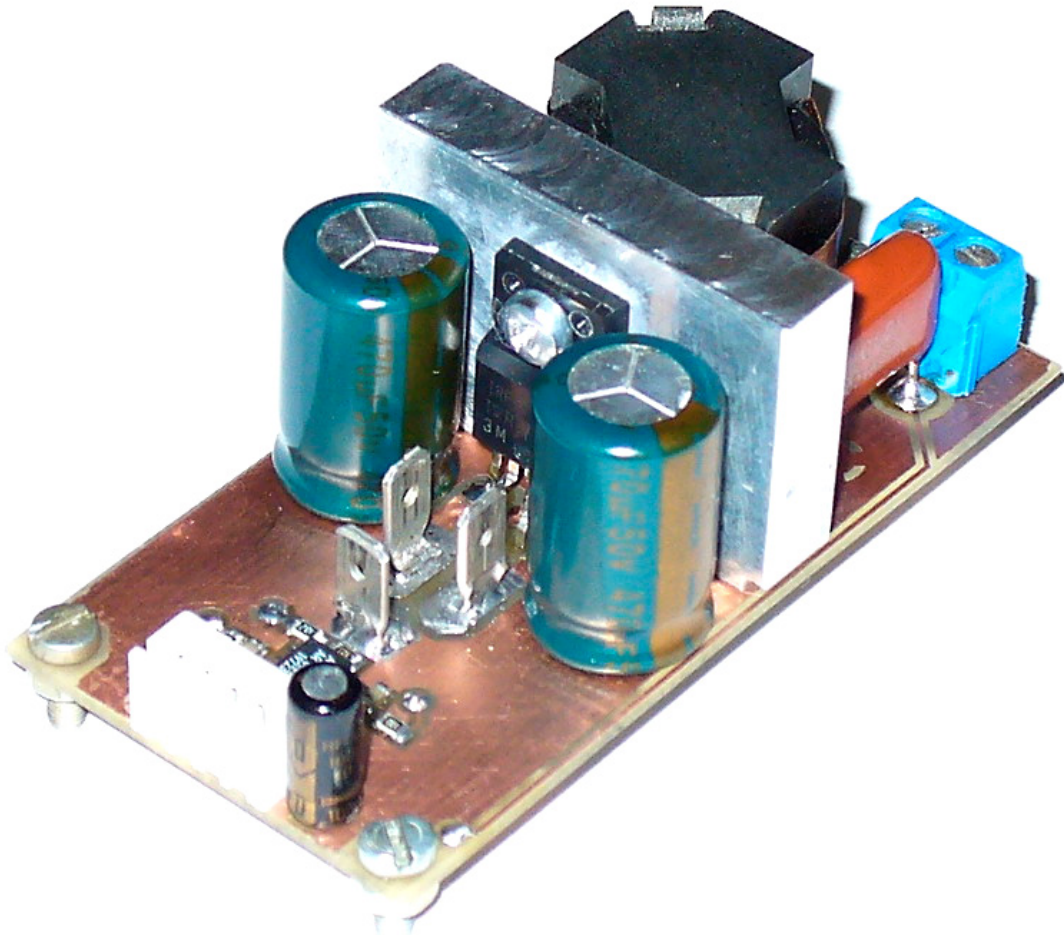


Cakeamp

simple self-oscillating D class amplifier utilizing UcD principle

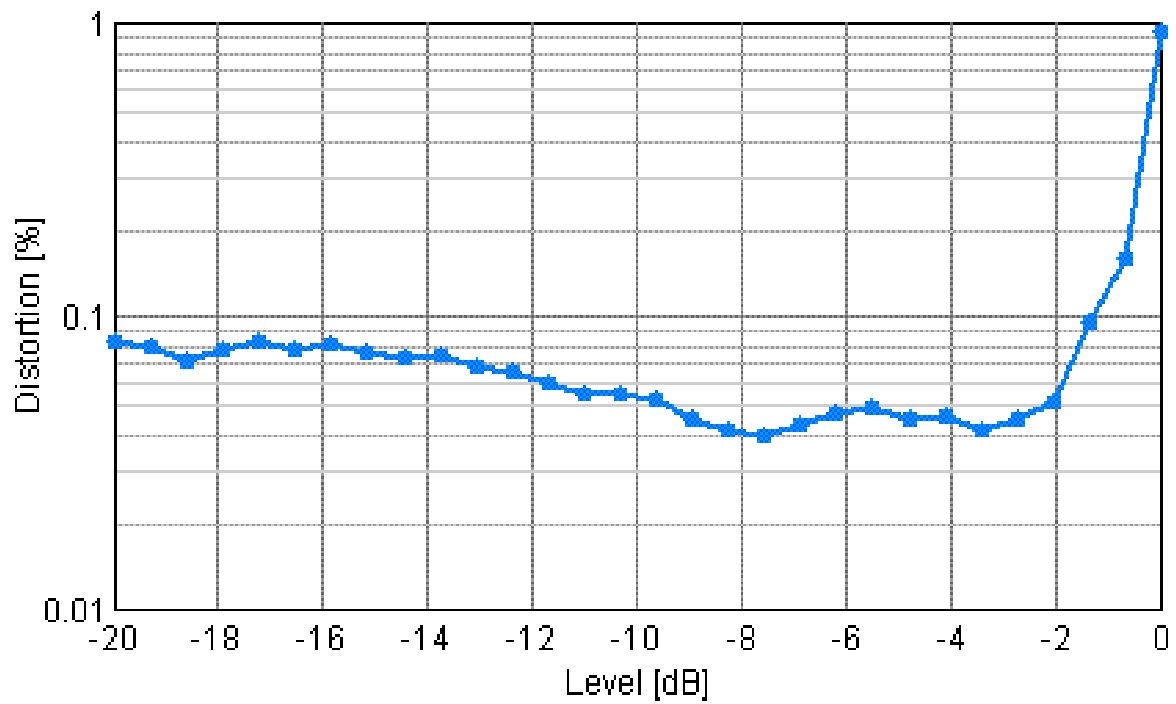


main performance:

output power	120 W	thd = 1%
frequency response	20Hz-35kHz	+ 0/-3 db
THD	0.05%	1kHz, Pout =1/2 Pmax
efficiency	94%	Pmax
idle loss	2.5W	no signal at input
dc offset	< 10mV	

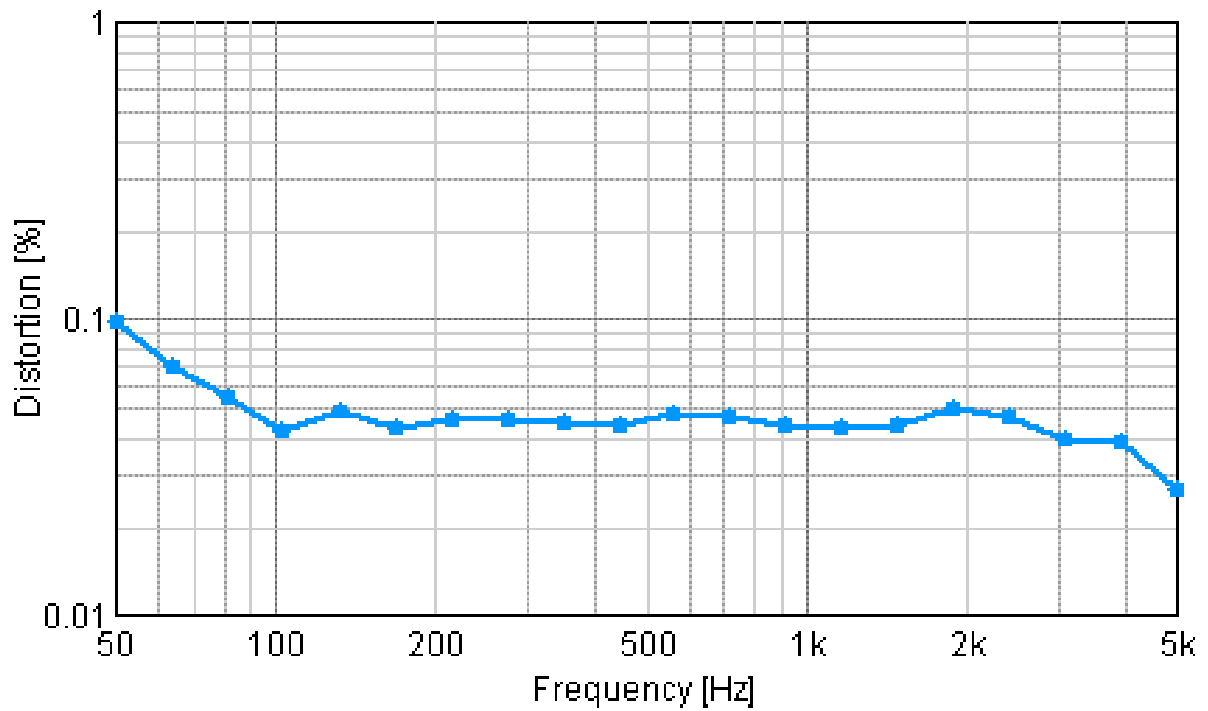
PS = +/-40V, load 6.5Ohm

thd vs. level:



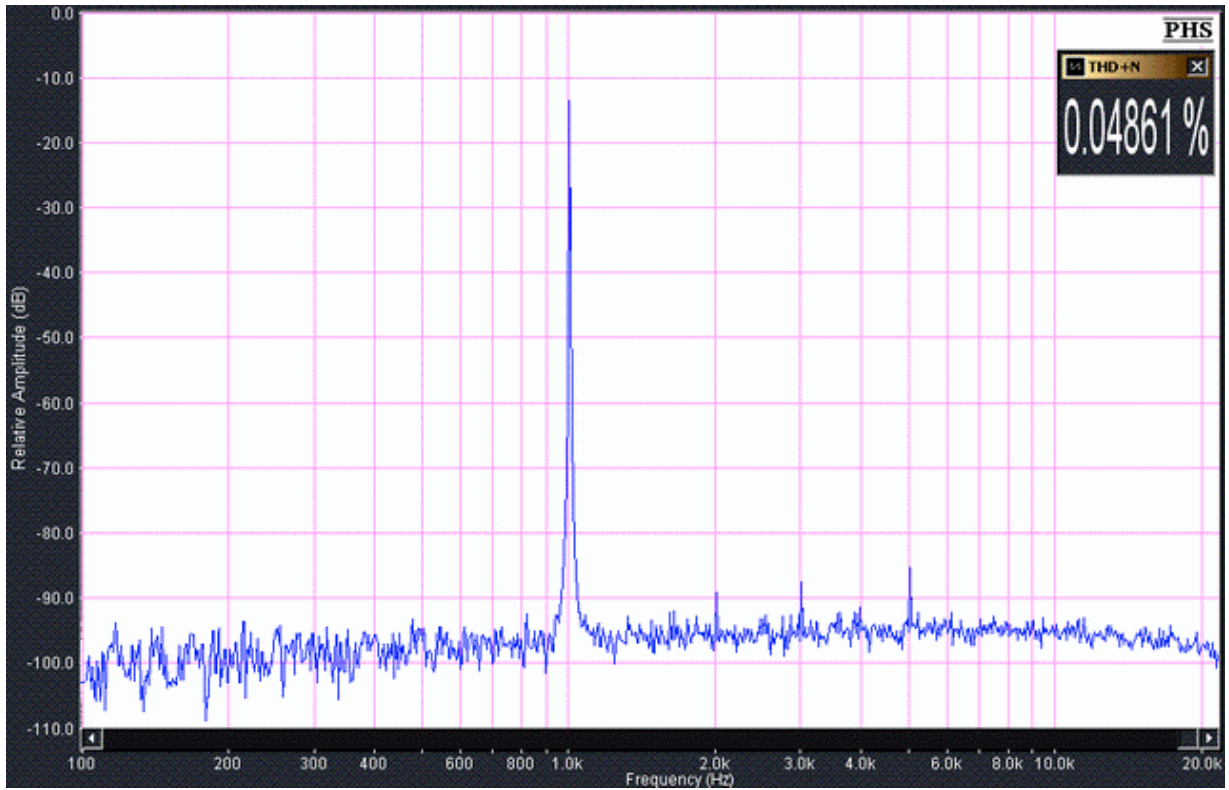
test signal 1kHz sine, load 6.5 Ohm resistor, 0 db - 120W.

thd vs. frequency:



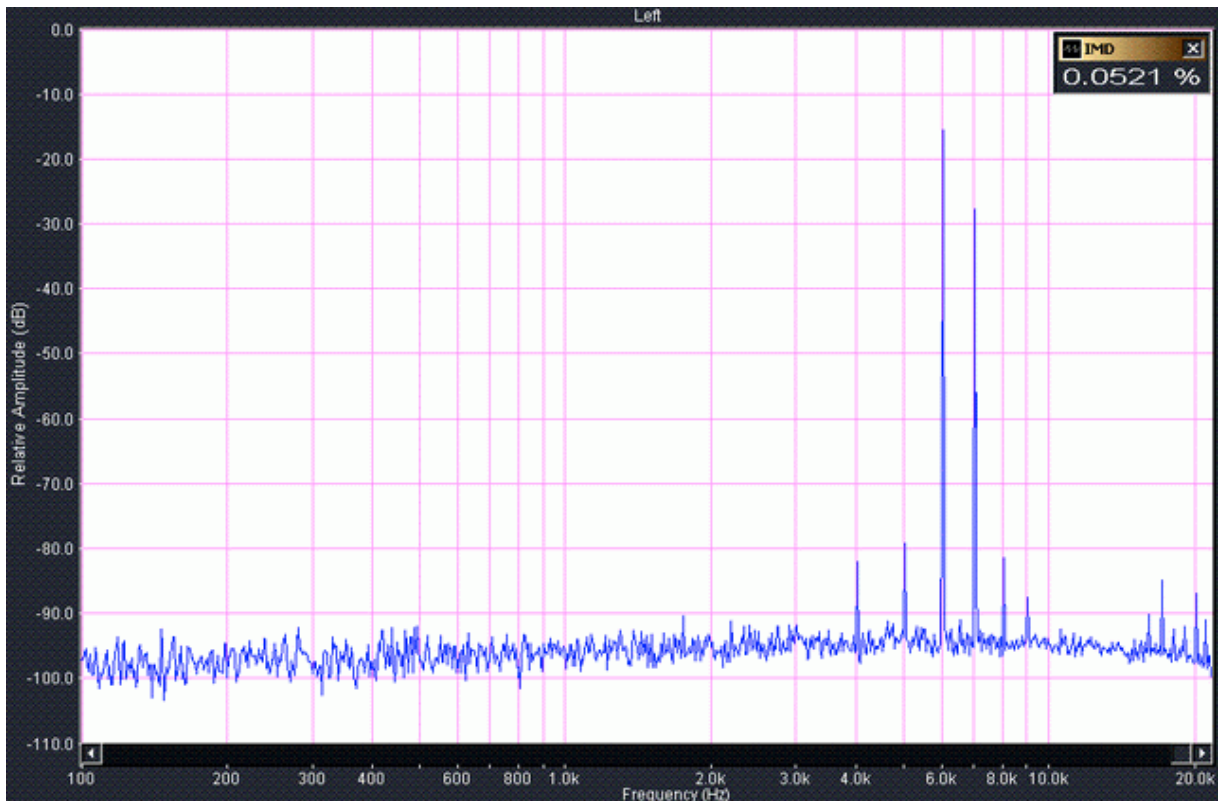
load 6.5 Ohm resistor, measurement level -3db

1kHz sine, $P_{out} = 1/2P_{max}$ spectrum:



load 6.5 Ohm resistor

IMD:

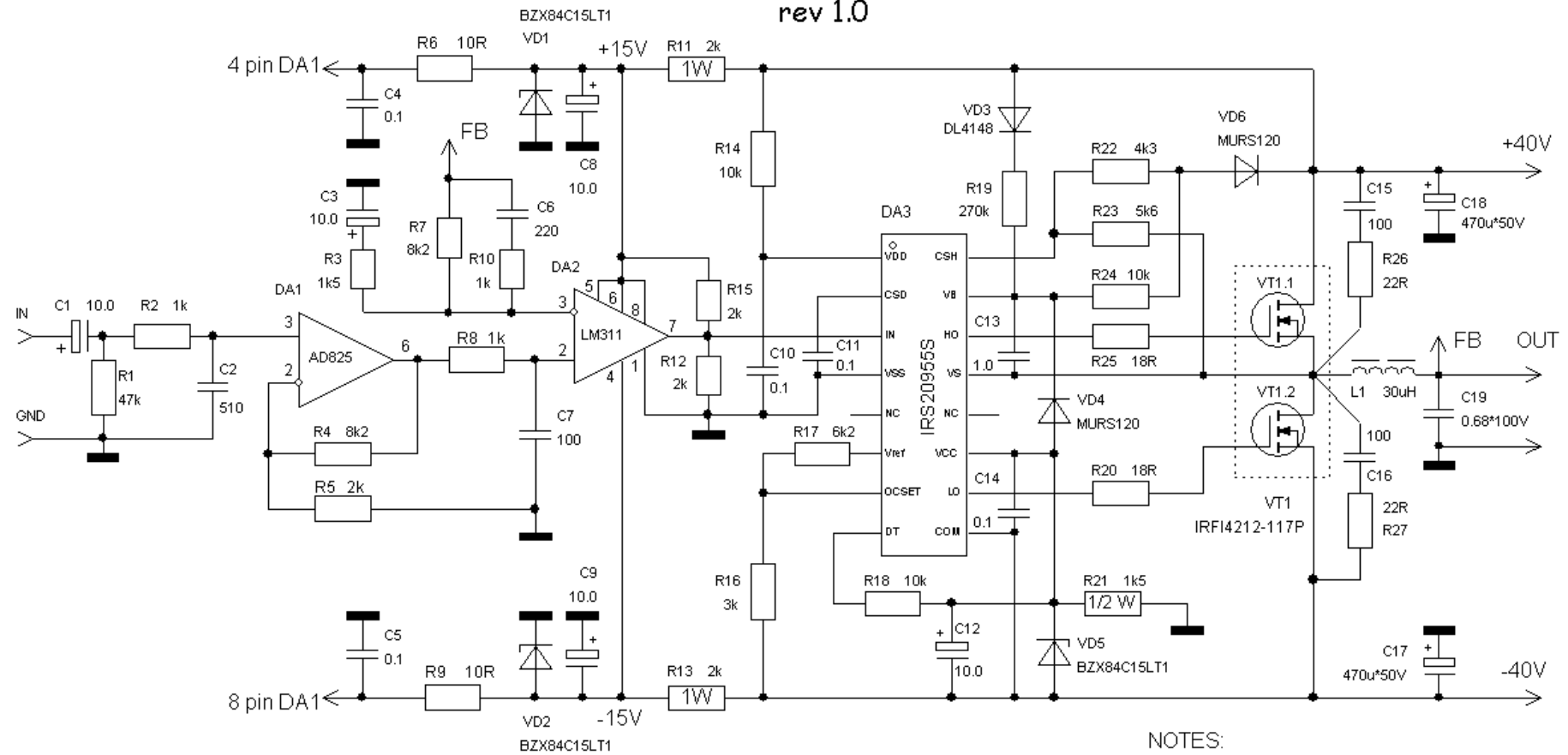


P_{out} 30W @ 6.5Ohm, test tone: 6kHz+7kHz, amplitude ratio 1:4

electric circuit:

Cakeamp

rev 1.0



NOTES:

L1: EPCOS RM10 N87 with 1mm air gap
16 turns of 0.8mm dia wire (awg 18),

C13 minimum capacitance 1.0uF
C17, C18 low ESR type preferable.

special thanks to:

Bruno Putzeys for UcD idea (www.hypex.nl)
IVX for hints & support (www.perfectsine.com)

best regards, Ovsyannikov Oleg aka Bender.ru

14/04/2008