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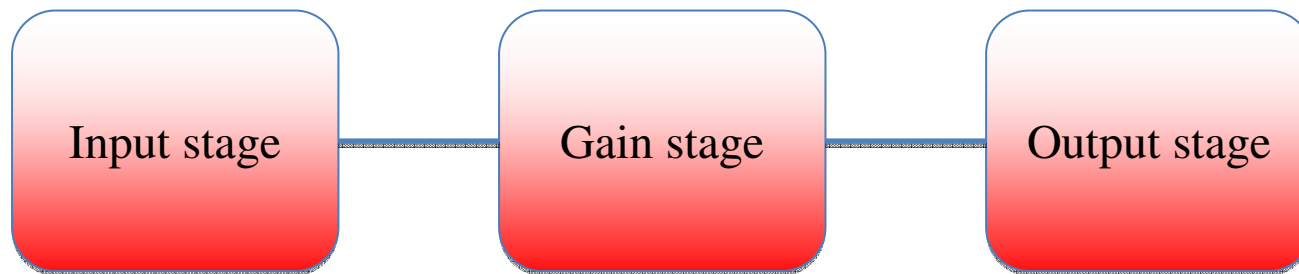
Design Project Presentation

M. Chaves, G. Iven, A. Rasoulof
Spring 2013

Outline

- General design scheme
- Circuit design
- Circuit output

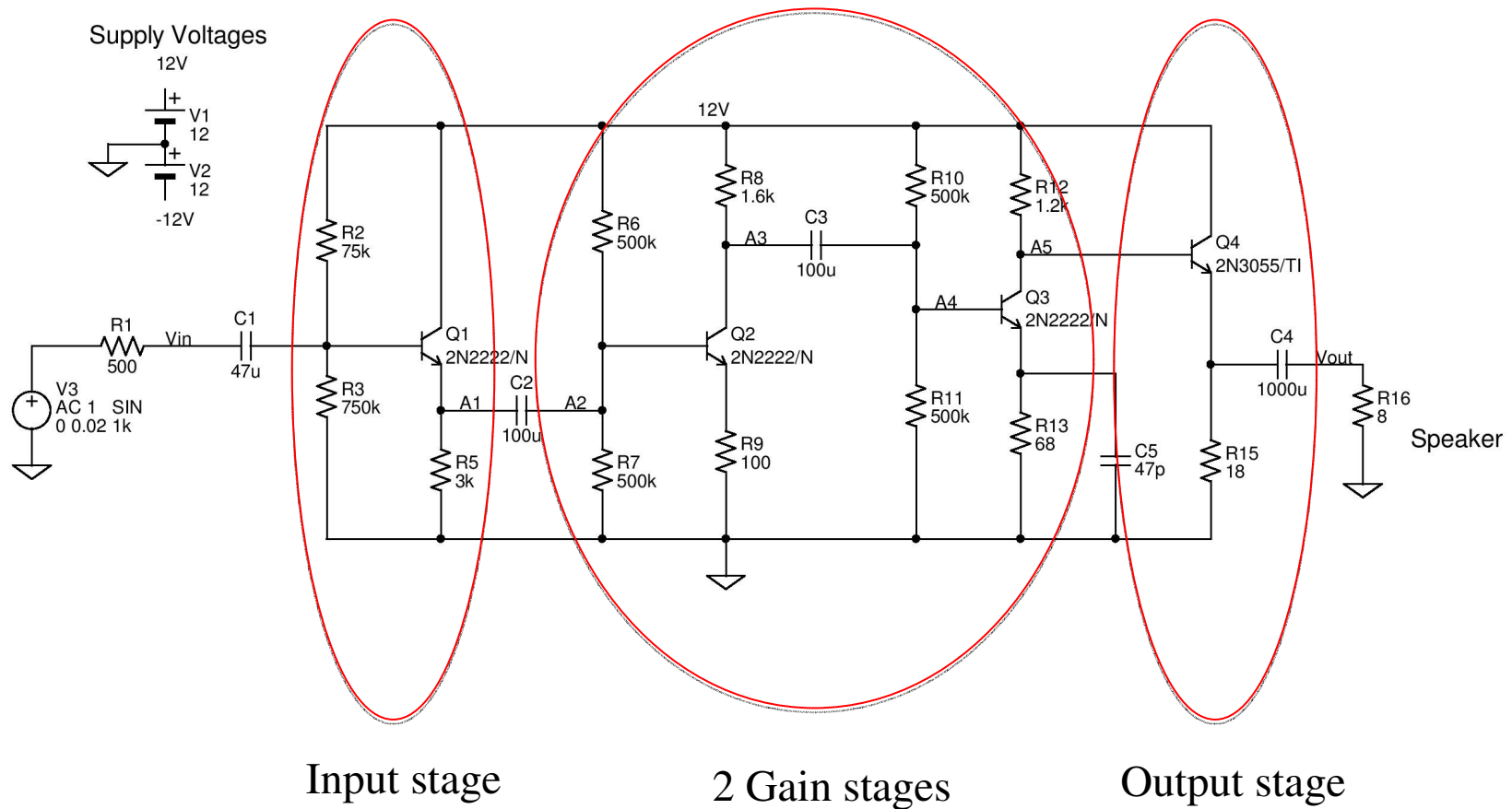
General design scheme



Circuit design

ECE 322L Audio Amplifier Project

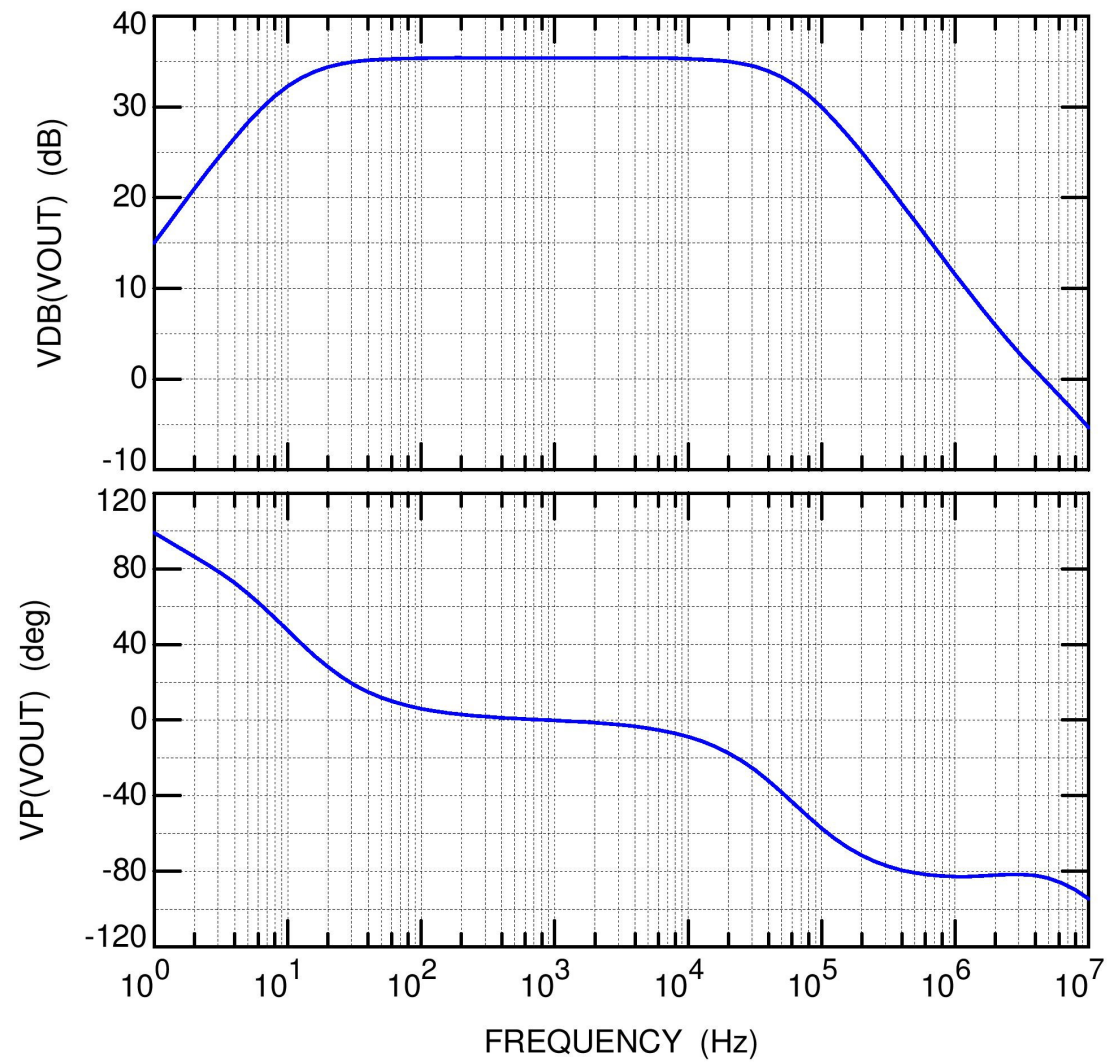
Designed by: M. Chaves, G. Iven, A. Rasoulof



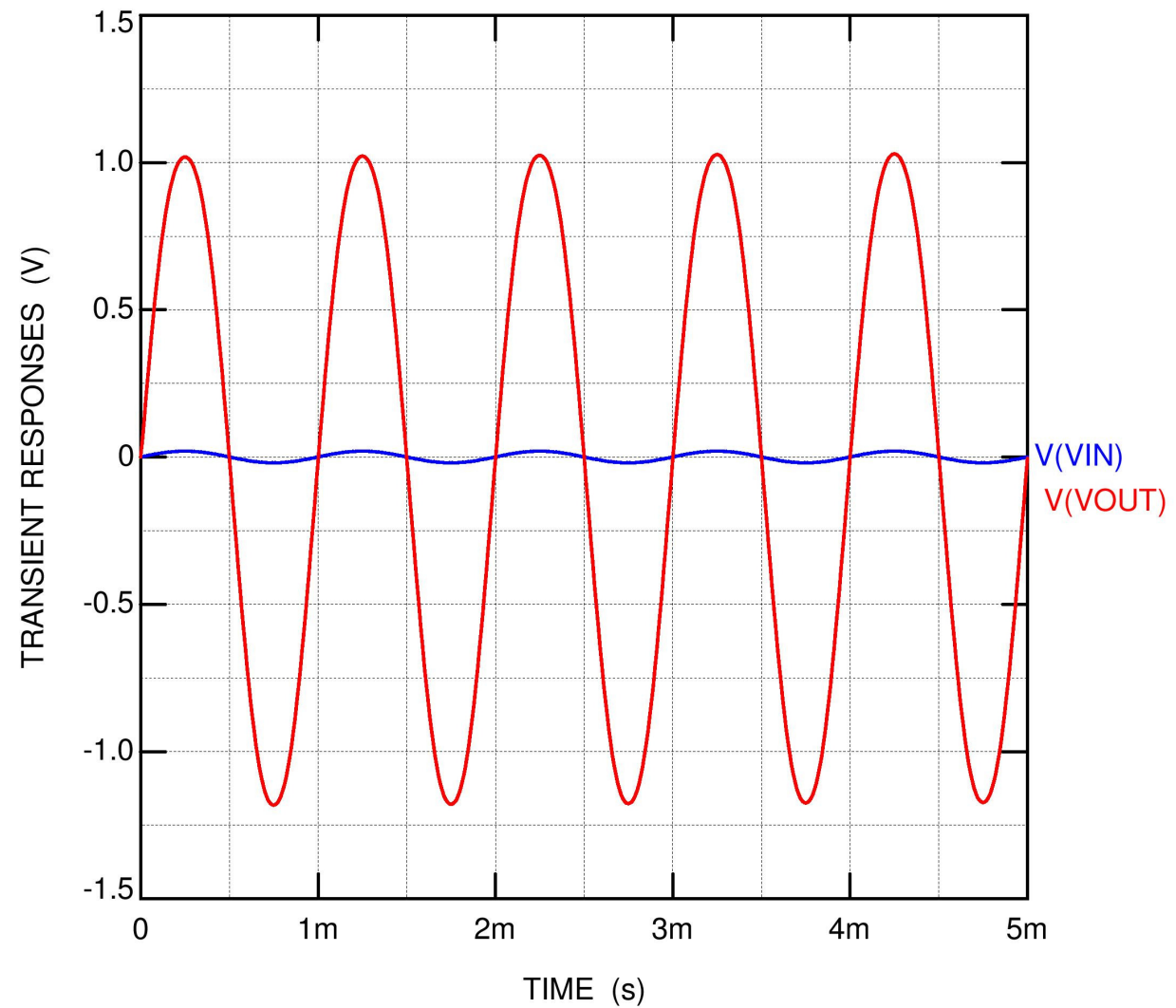
Simulation outputs

	Q1	Q4	Q2	Q3
MODEL	2N2222/N	2N3055/TI	2N2222/N	2N2222/N
IB	1.7904E-05	2.6118E-03	1.9899E-05	2.0342E-05
IC	2.9900E-03	2.1840E-01	3.4868E-03	3.4968E-03
IE	-3.0079E-03	-2.2101E-01	-3.5067E-03	-3.5172E-03
IS	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
VBE	0.6737	0.6997	0.6767	0.6774
VBC	-2.3107	-7.3258	-5.3963	-3.7577
VCE	2.9844	8.0255	6.0731	4.4351
VCS	12.0000	12.0000	6.4236	4.6742
BETADC	166.9976	83.6193	175.2246	171.9051
GM	1.1441E-01	8.0755E+00	1.3326E-01	1.3361E-01
RPI	1.5783E+03	1.1159E+01	1.4178E+03	1.3865E+03
RX	1.0000E+01	1.0000E+01	1.0000E+01	1.0000E+01
RMU	6.0544E+12	2.6028E+12	6.0758E+12	6.0688E+12
RO	2.5531E+04	2.6248E+02	2.2778E+04	2.2244E+04
CPI	8.4217E-11	3.1700E-07	9.2053E-11	9.2215E-11
CMU	4.5204E-12	1.2499E-10	3.5619E-12	3.9602E-12
CBX	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
CCS	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
BETAAC	1.8057E+02	9.0118E+01	1.8894E+02	1.8525E+02
FT	2.0520E+08	4.0528E+06	2.2182E+08	2.2110E+08

Amplifier frequency response



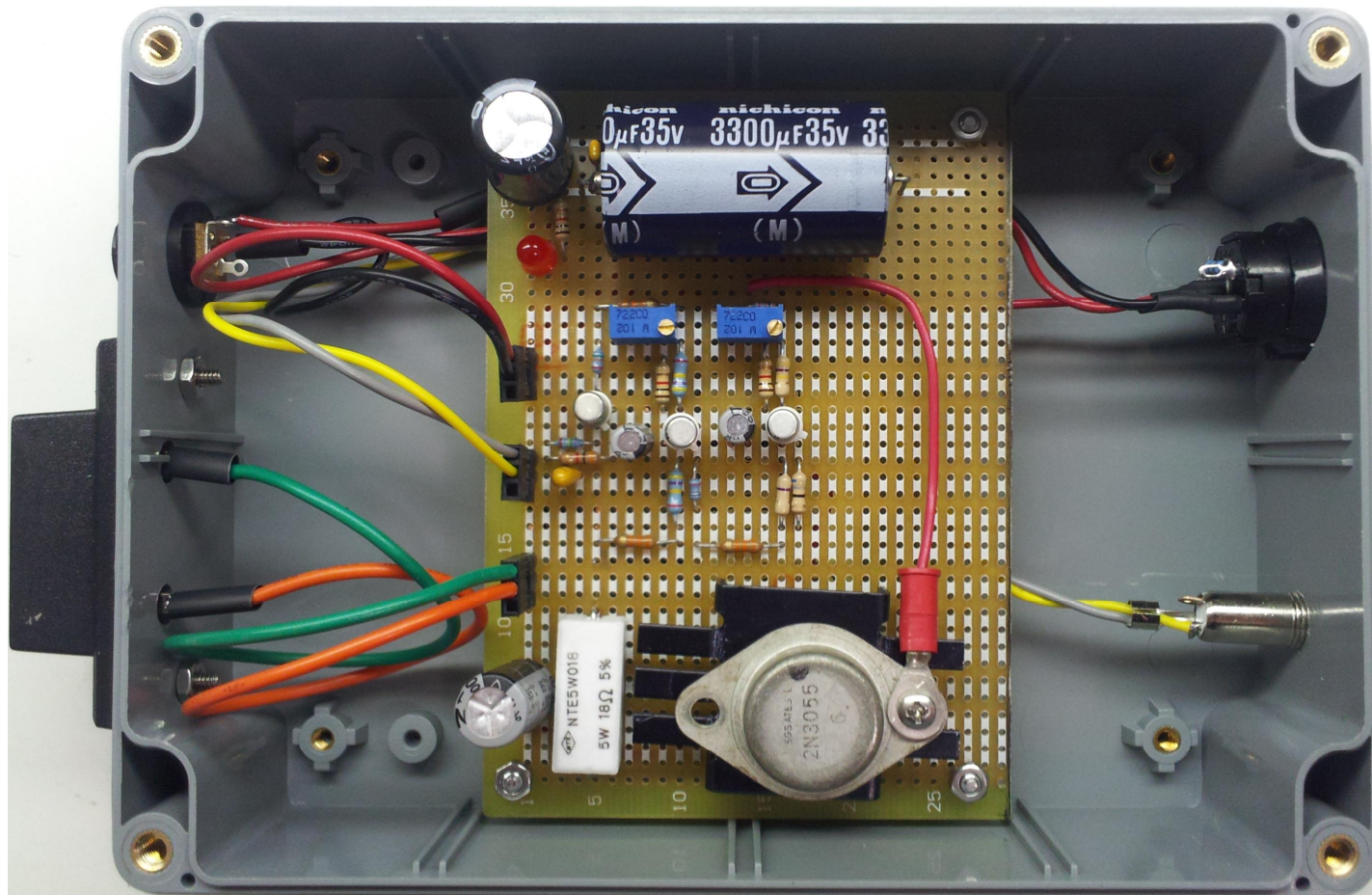
Amplifier single frequency response



Design issues

- Part tolerances
- Bad parts

Final Product



Music waveforms captured on the input and output of our circuit

