

Monoblock Power Amplifier

Continuous power capability

- 280 W into 8.0 Ω (Voltage rail limited)
- 400 W into 4.0 Ω (Transformer current limited)
- 250 W into 2.0 Ω ((Transformer current limited)

Reliability Features

- Line current inrush limiting
- Output stage overcurrent protection
- Overtemp cutout switches on heatsinks
- Load connect delay (no turn-on, turn-off thumps)
- Load disconnect in presence of $> +0.6\text{VDC}$, $< -0.6\text{V VDC}$

Status LEDs

- Overcurrent
- Thermal cutout
- Power status
- Load connect status

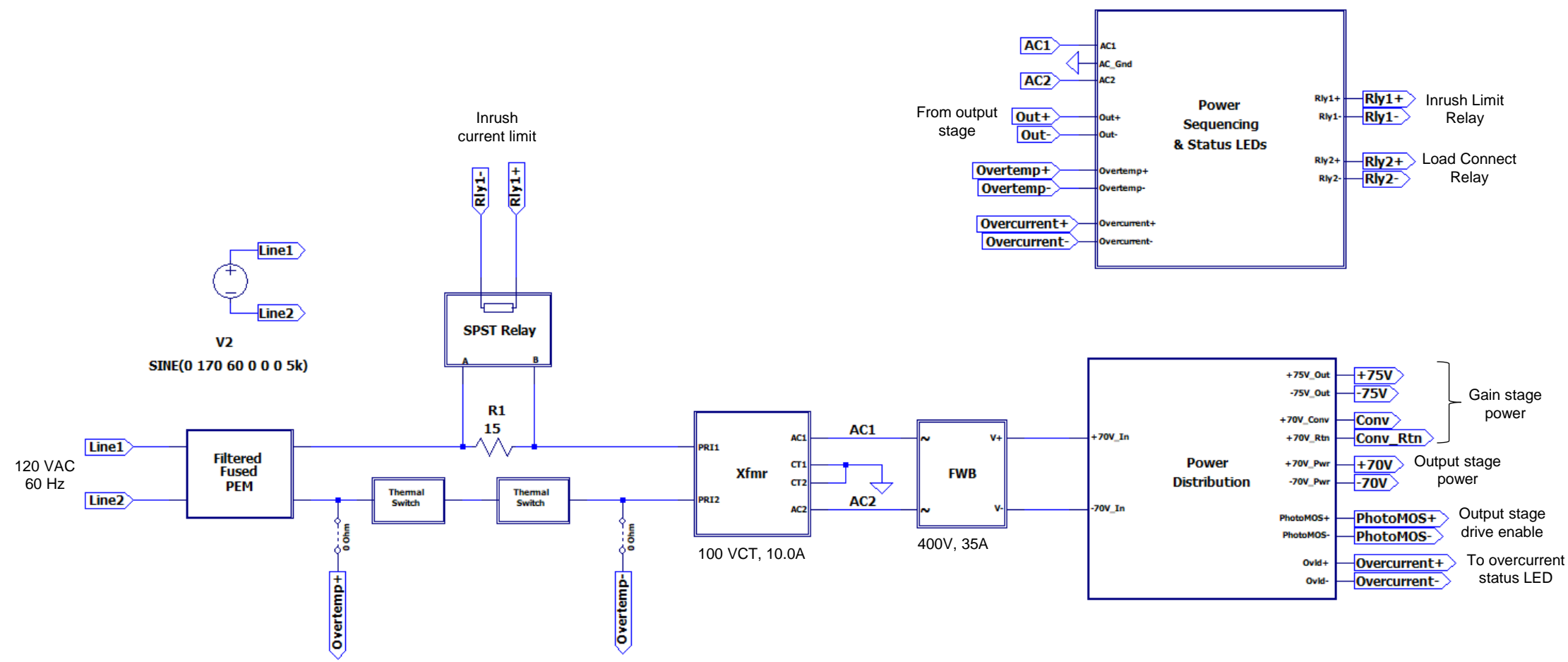
Circuit Features

- 100 V_{RMS} CT, 10A toroid transformer
- 300 J energy storage in filter capacitor bank
- 50A peak current drive capability
- Simulated stable with all reactive loads
- Separate feedback paths for gain and output stages
- Diamond buffer on final gain stage
- 12 dual-die lateral output stage MOSFETs
- Excellent THD, IM distortion figures

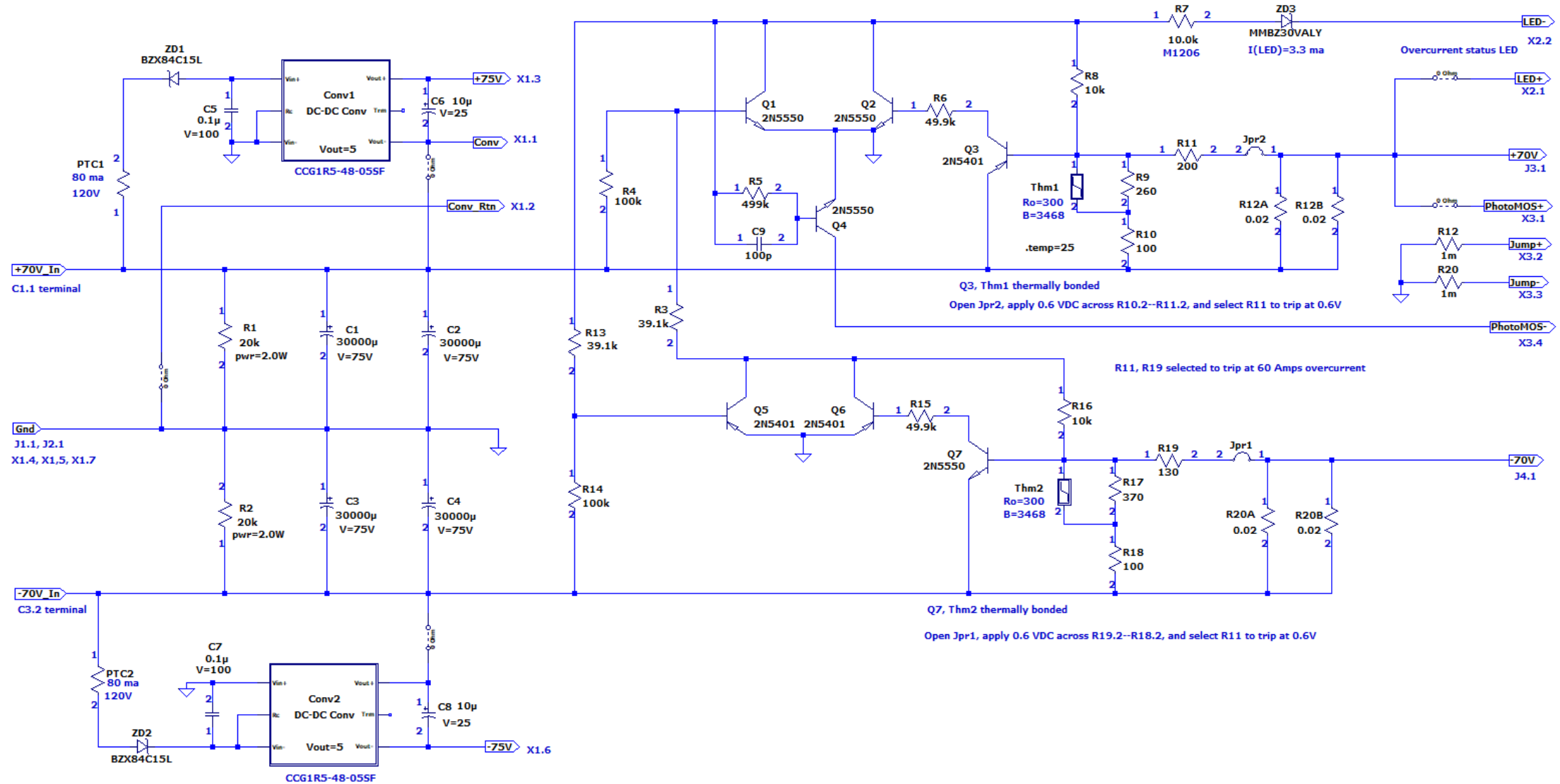
Front, Rear Views



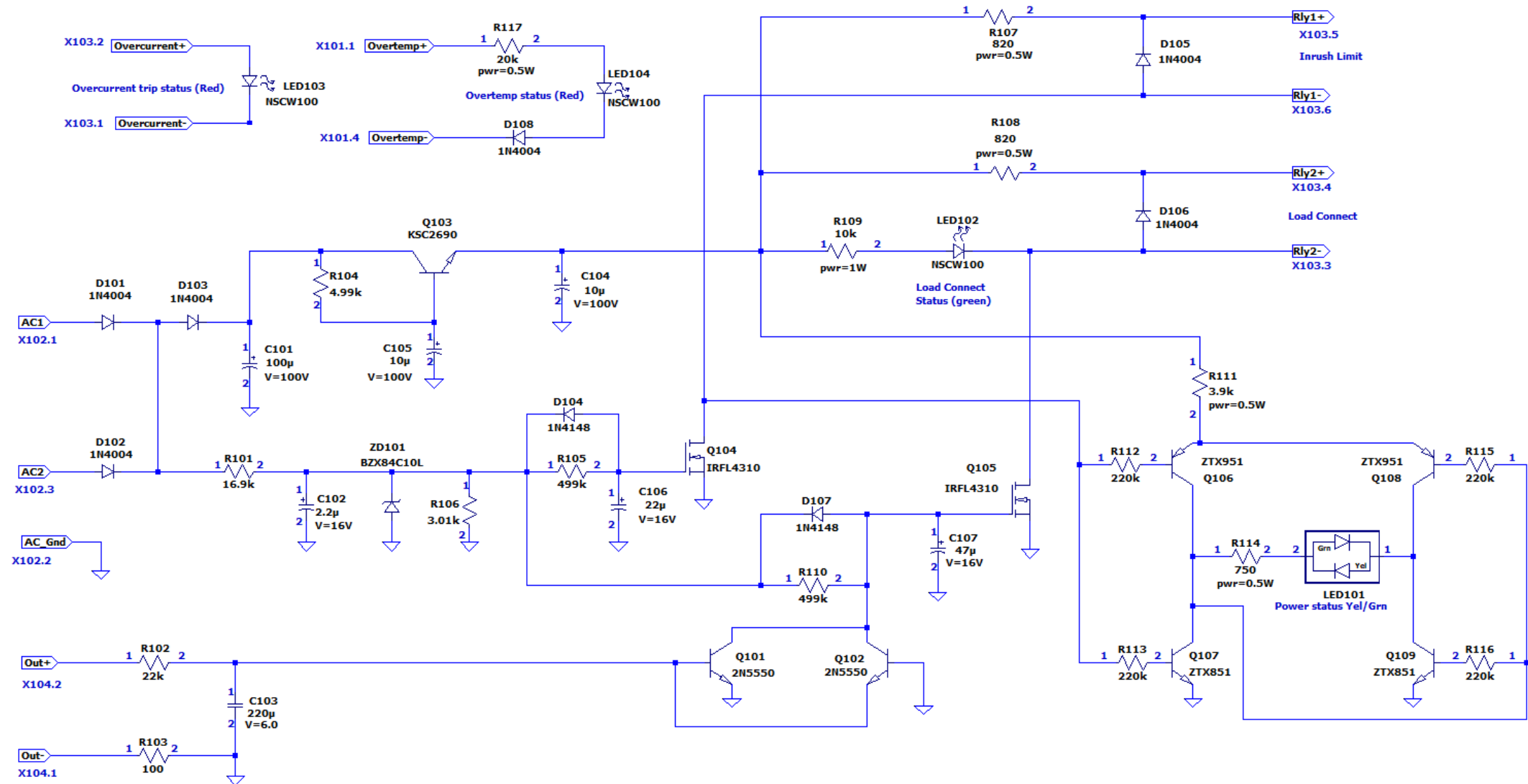
Power Stages



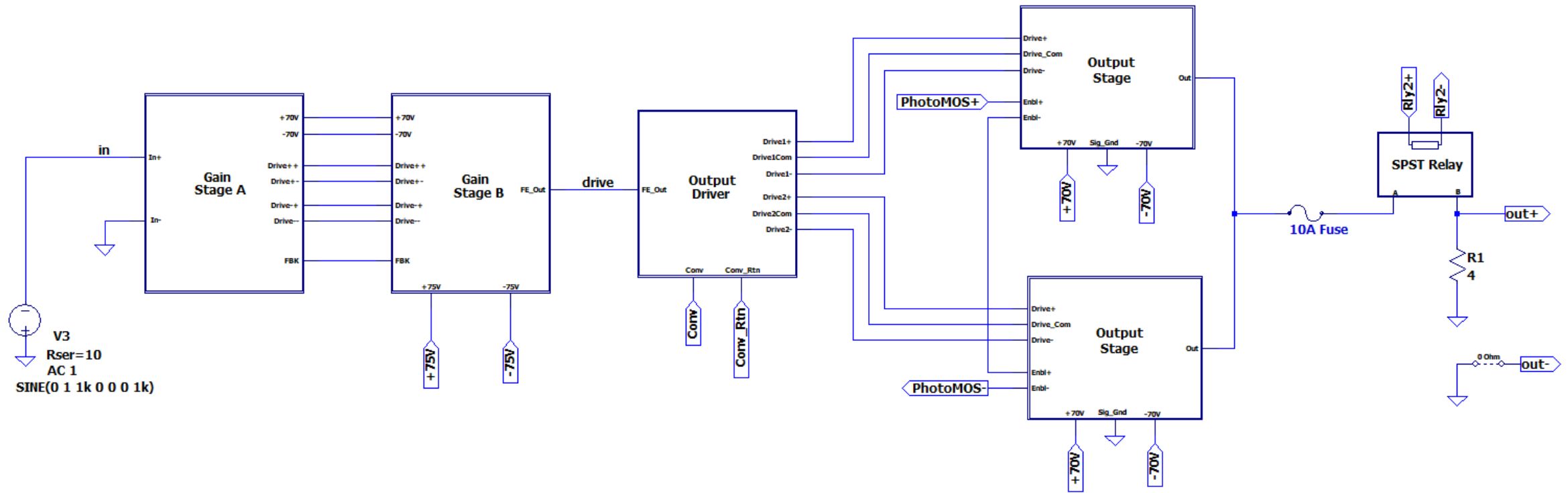
Power Distribution and Overcurrent Control



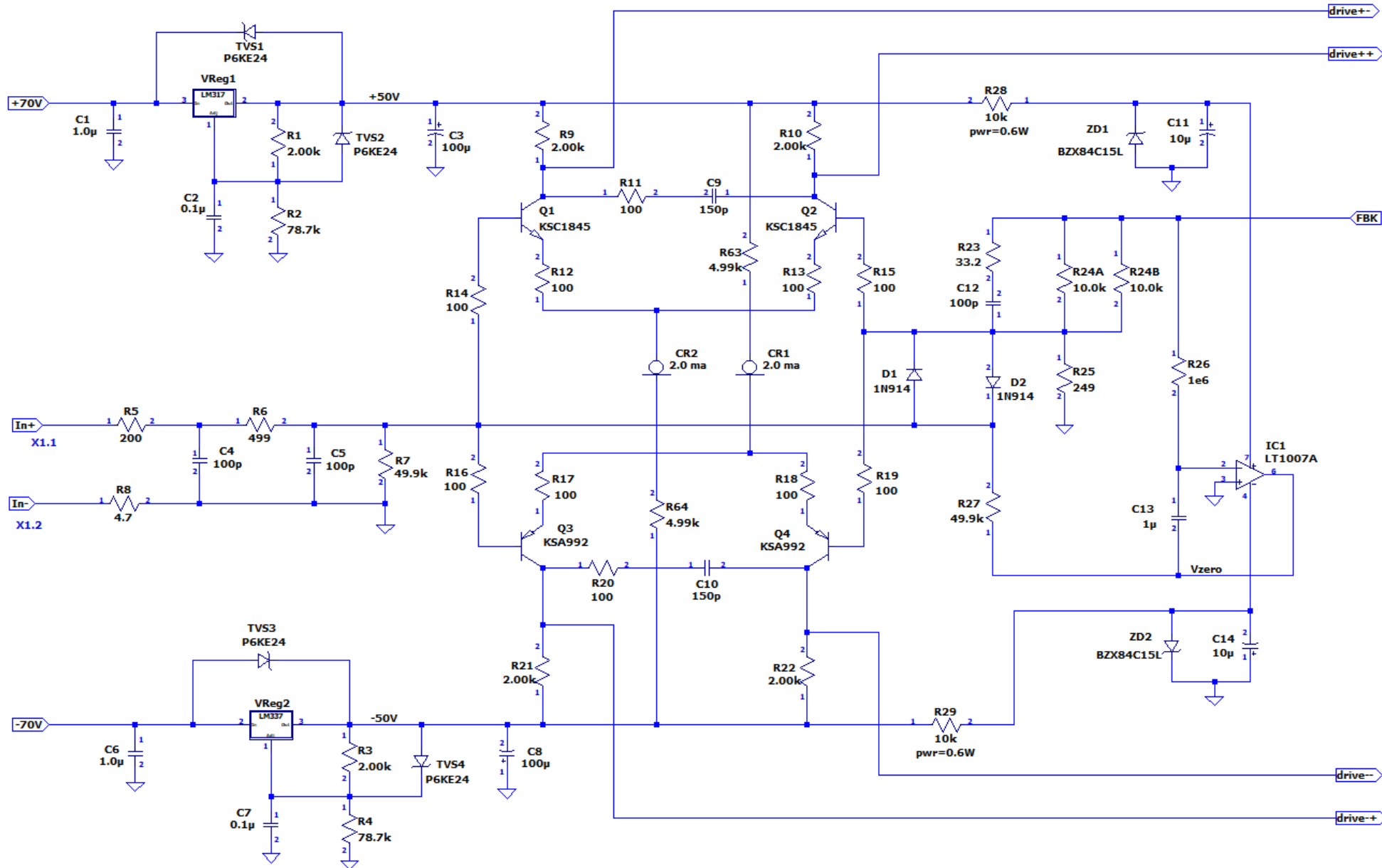
Power Sequencing, Status LEDs



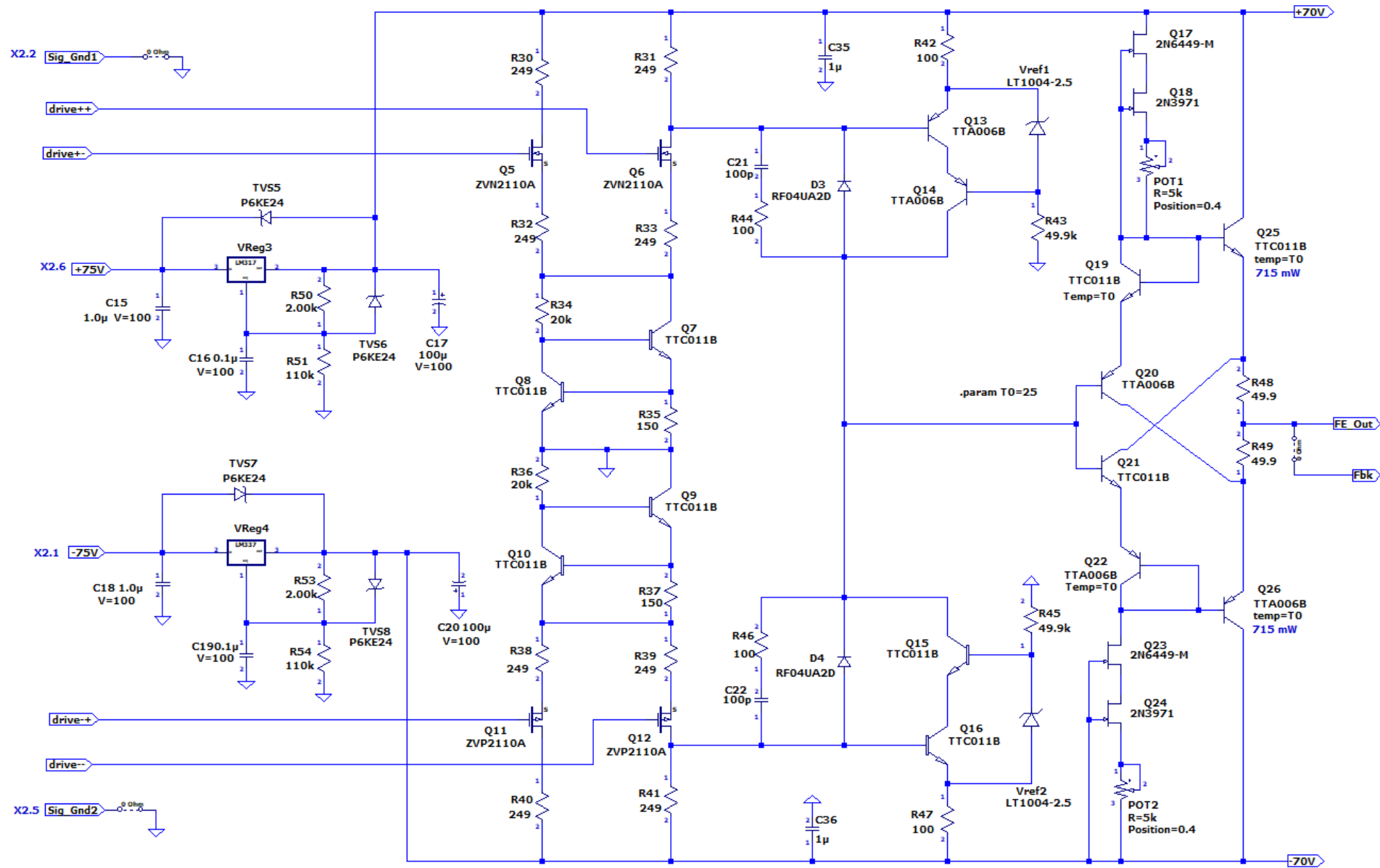
Gain Stages



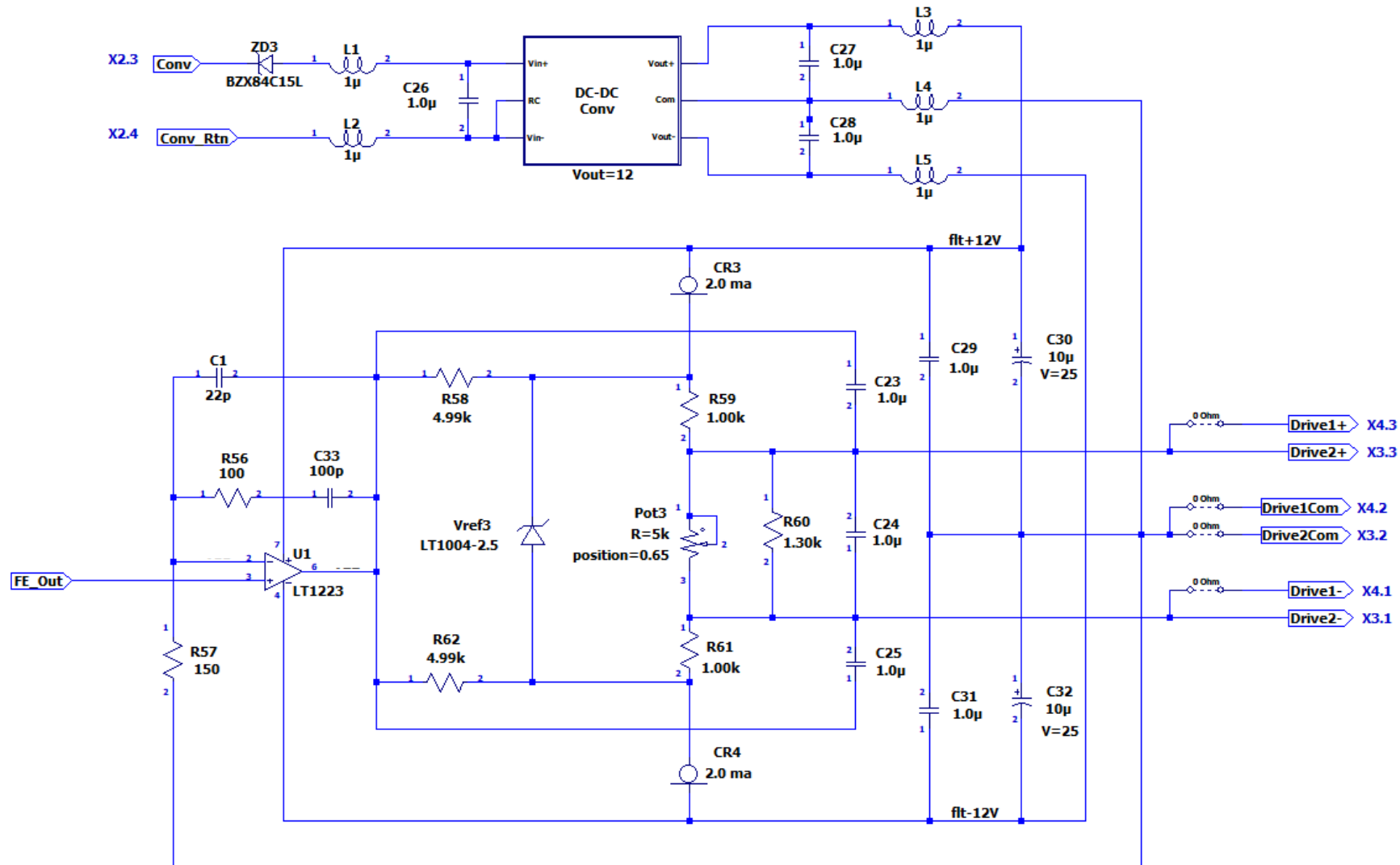
Gain Stage A



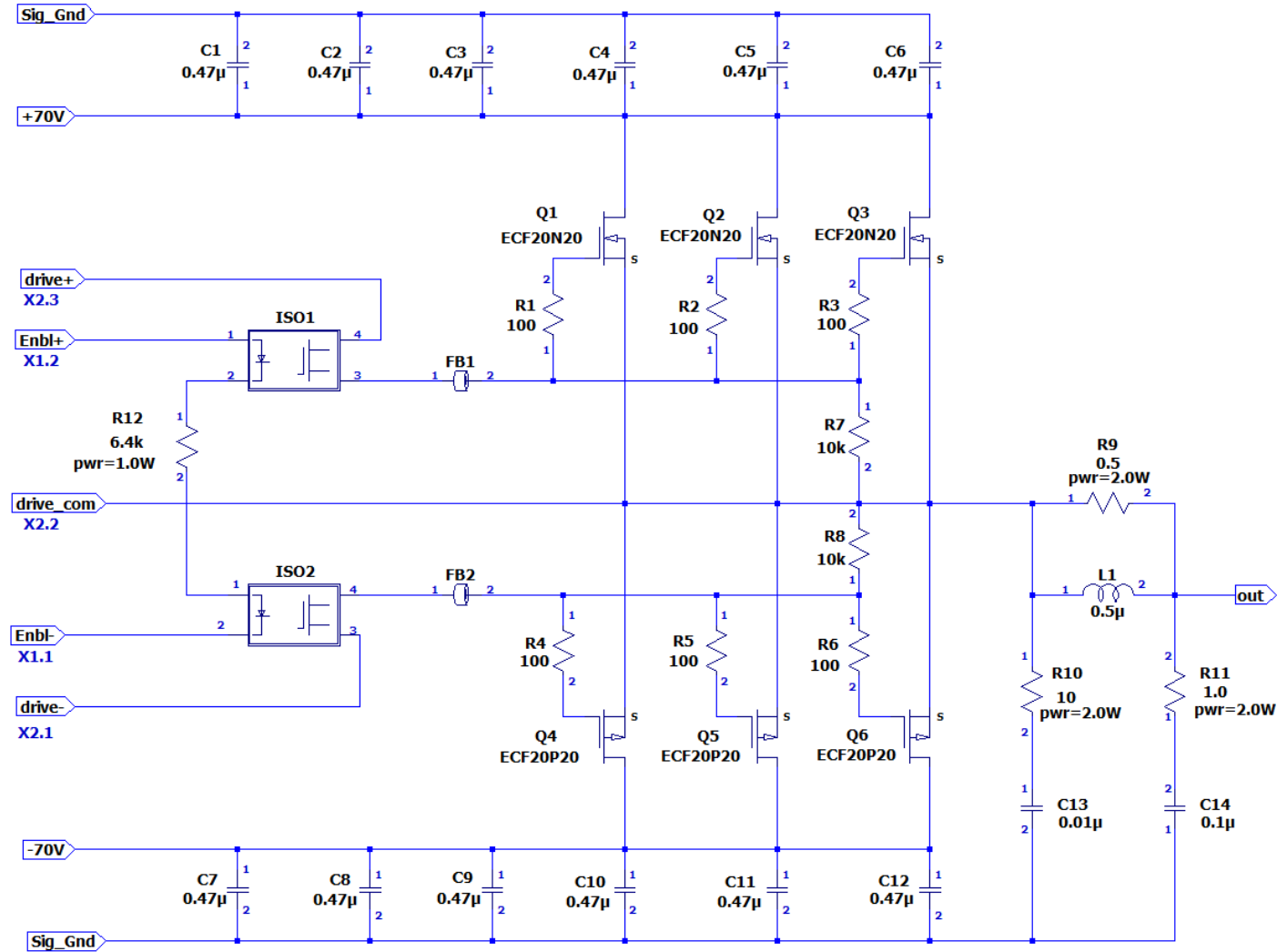
Gain Stage B



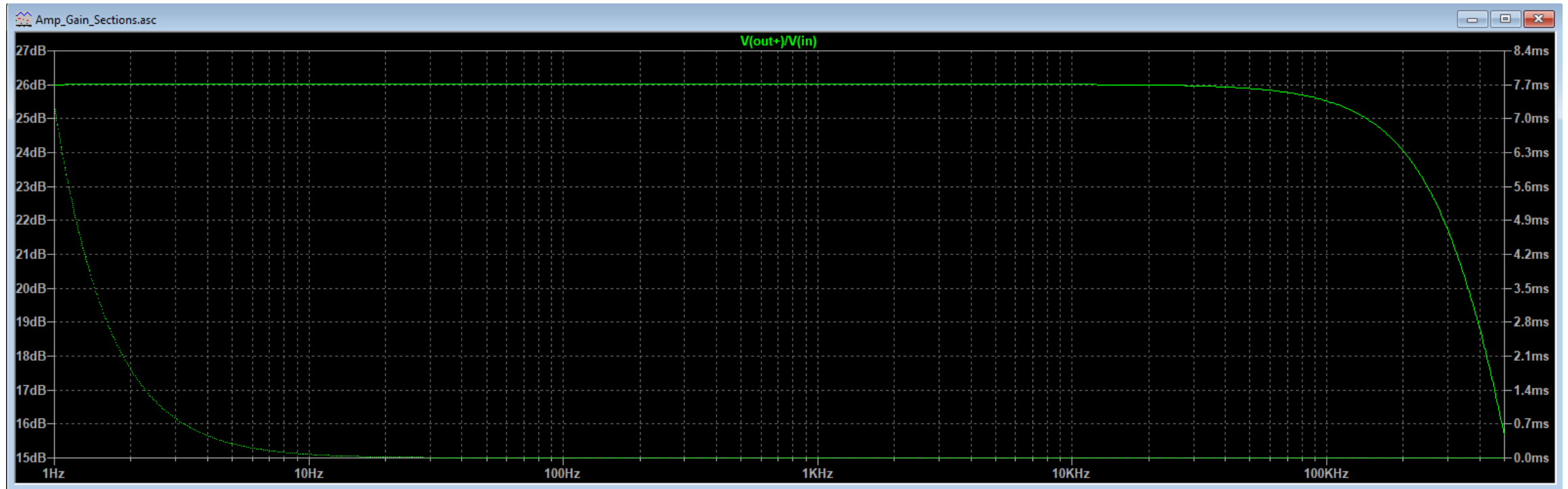
Output Driver Stage



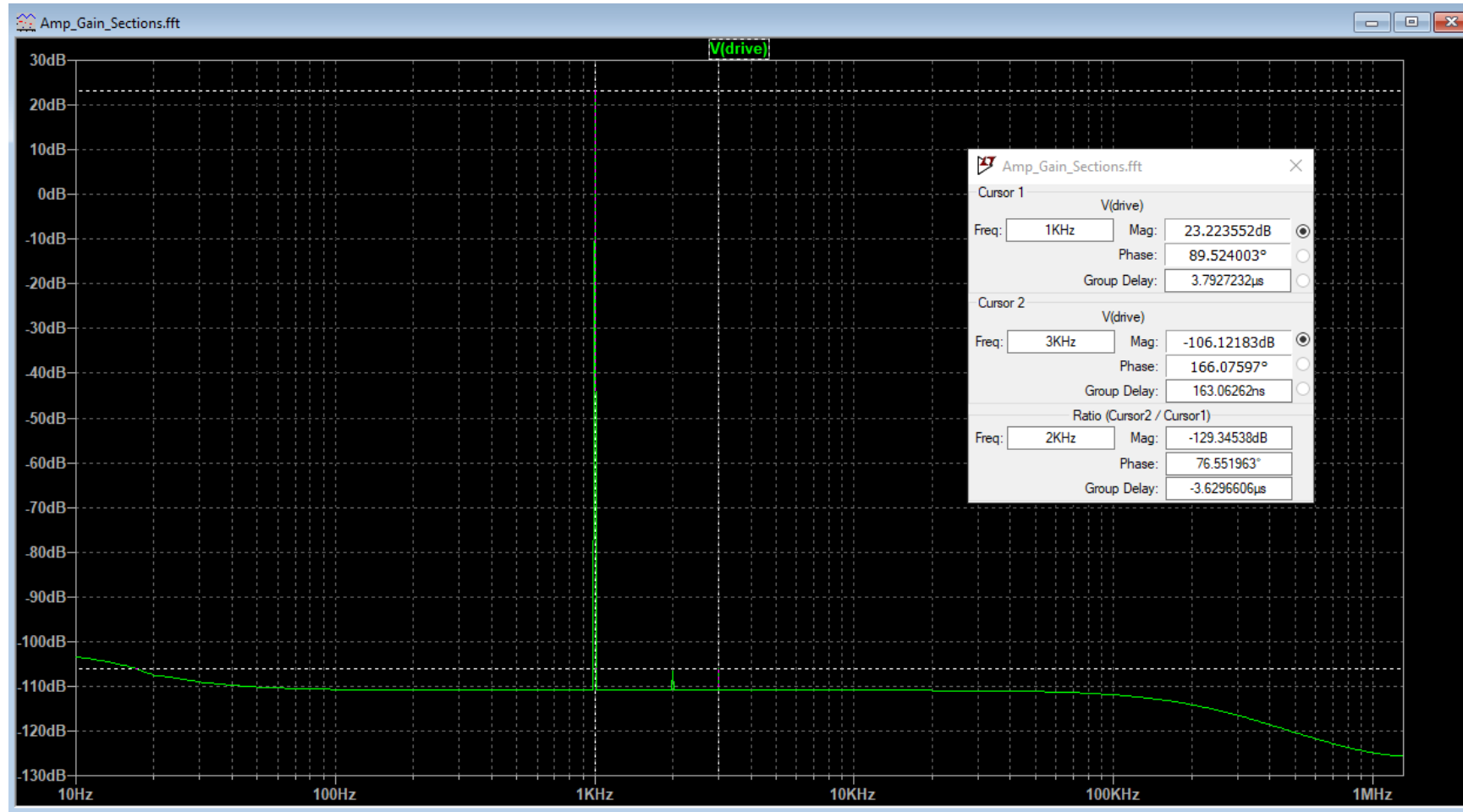
Output Stage (1 of 2)



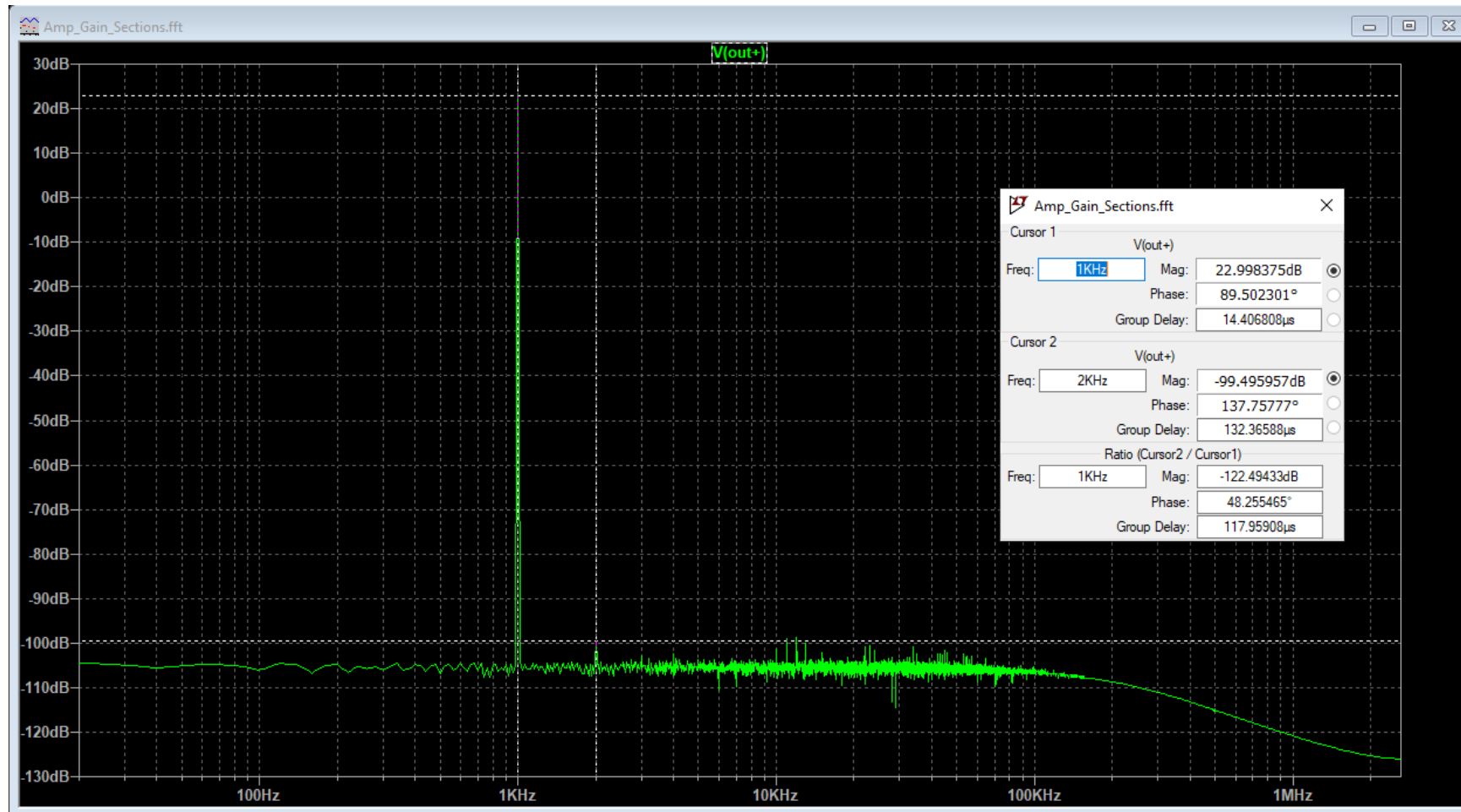
Bandwidth and Group Delay: $R_L = 4\Omega$



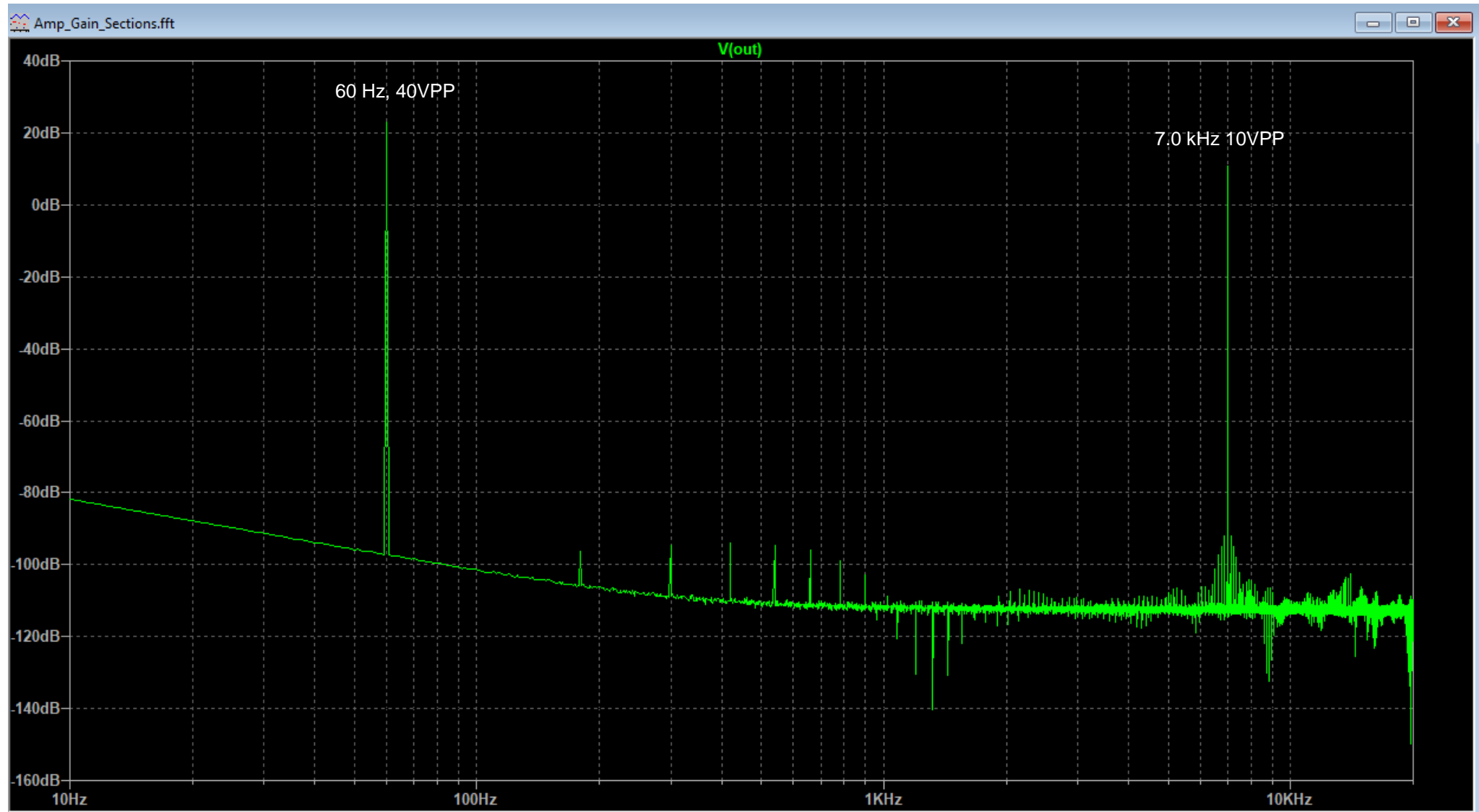
Gain Stage Distortion: 1.0 kHz, $V_{OUT} = 40V_{PP}$



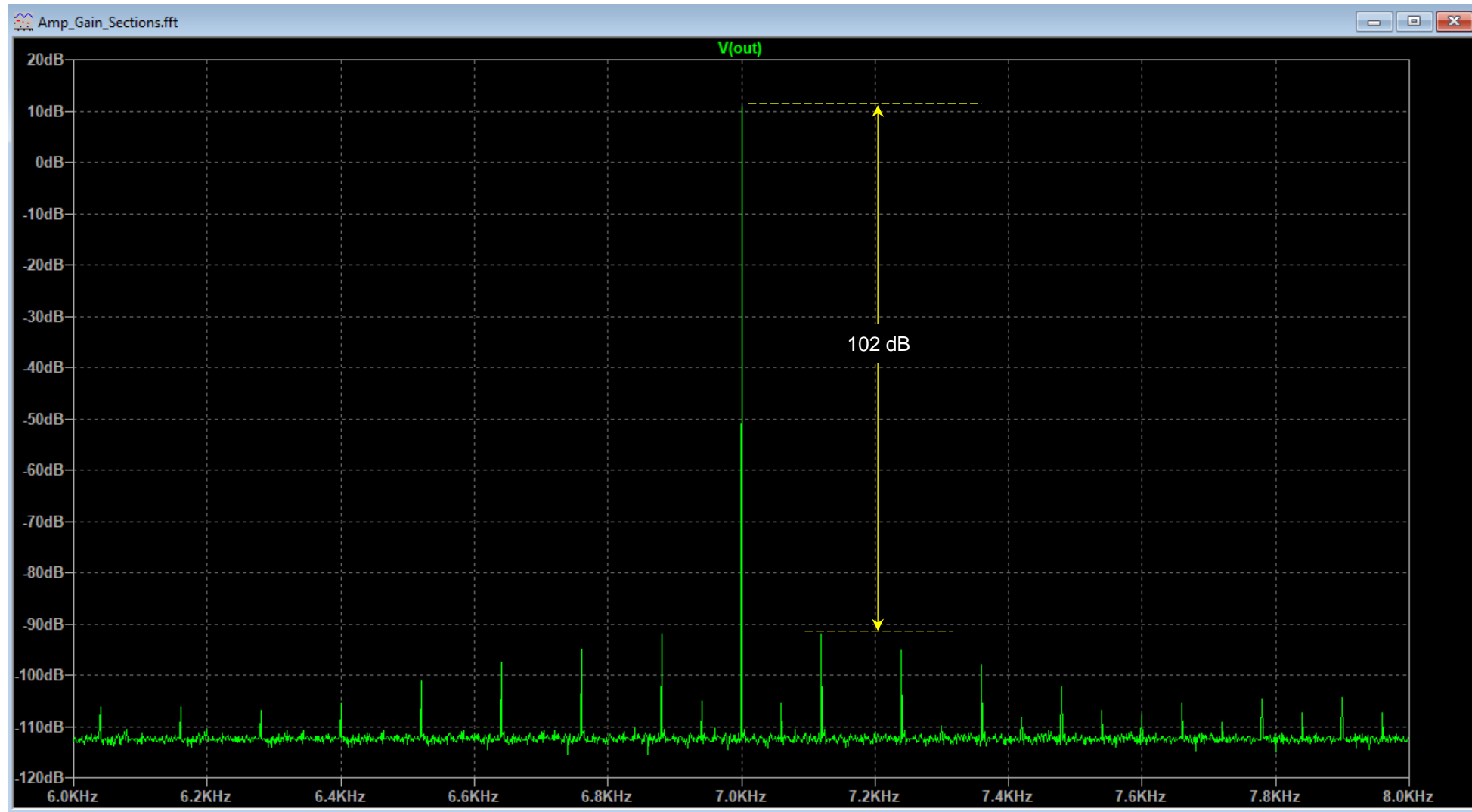
Output Distortion: 1.0 kHz $V_{OUT} = 40V_{PP}$, $R_L = 4\Omega$



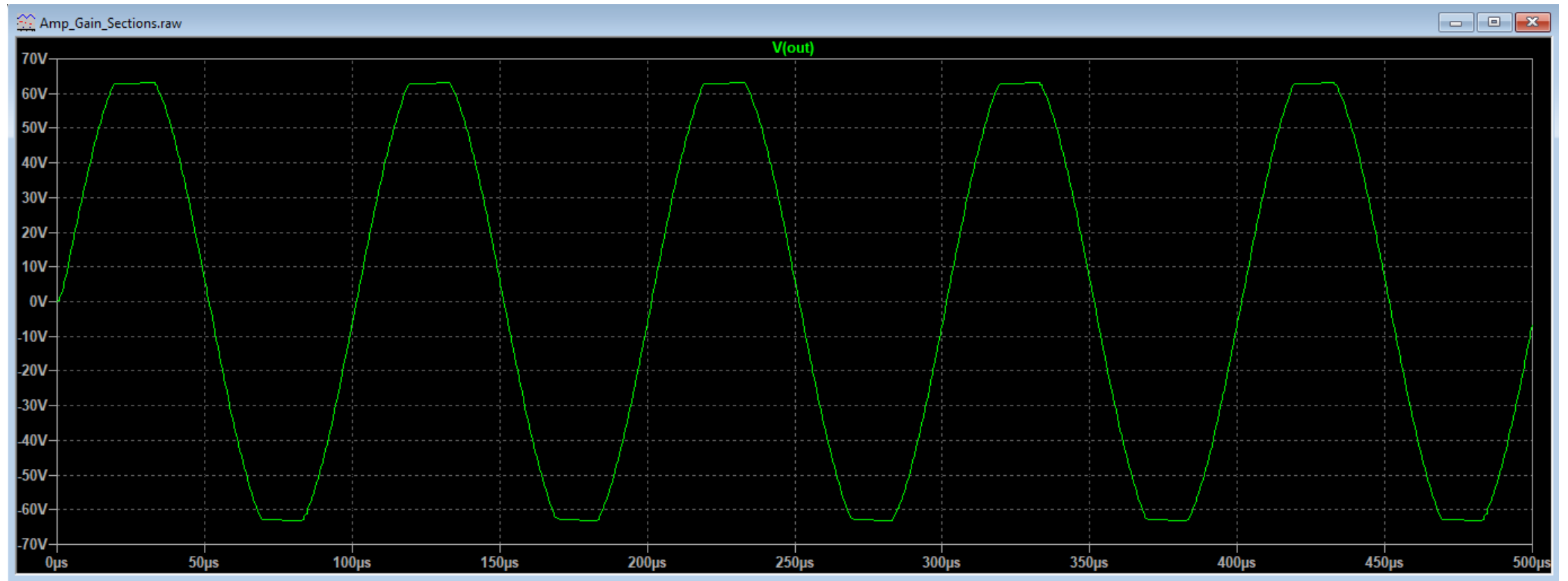
4/1 60 Hz/7.0 kHz Intermodulation: $R_L = 4\Omega$



4/1 60 Hz/7.0 kHz Intermodulation (Detail)



10 kHz, 7.0 VPP Input Clipping into 4Ω Load



10 kHz Square Wave Response

