

# AS 200.4

[ Rev. 2.0 - 2012/08 ]

4-channel AB class amplifier

## CEA-2006-A SPECIFICATIONS

**POWER RATING: 200 Watt per channel @ 4 Ohm < 1% THD+N**  
**SN RATIO: >86 dBA (reference: 1 Watt into 4 Ohm)**

## MOS SPECIFICATIONS (Tcase = 25 °C / 4 Ohm stereo / 0.2V input level @ 14.4 Volt if not otherwise specified)

**TARGET POWERS:**  
200 Watt per channel @ 4 Ohm  
320 Watt per channel @ 2 Ohm  
640 Watt BTL mode @ 4 Ohm  
950 Watt BTL mode @ 2 Ohm (\*)

**EFFECTIVE POWERS:**  
210 Watt (160 Watt @12V6) x 4 87.9 A ( $\eta = 66.3\%$ ) @ 4 Ohm / ST mode / 1% THD / 1KHz  
326 Watt (252 Watt @12V6) x 4 151.2 A ( $\eta = 60.0\%$ ) @ 2 Ohm / ST mode / 1% THD / 1KHz  
652 Watt (504 Watt @12V6) x 2 151.2 A ( $\eta = 60.0\%$ ) @ 4 Ohm / BTL mode / 1% THD / 1KHz

**THD @ 4 Ohm / ST mode:** < 0.03 % (1KHz / 90% Power rating ref)  
**THD @ 2 Ohm / ST mode:** < 0.035 % (1KHz / 90% Power rating ref)  
**DIM @ 4 Ohm / ST mode:** < ----- % (Power rating ref)  
**DIM @ 2 Ohm / ST mode:** < ----- % (Power rating ref)

**DC-DC converter typology:** Unregulated  
**Conversion frequency:** 50 KHz ( $\pm 6\%$ )  
**Absolute maximum operation supply voltage range:** 10 V ÷ 16 V  
**Recommended operation supply voltage range:** 11 V ÷ 14.4 V  
**Power-on/Power-off Voltage Threshold:** 9 V / 7.5 V  
**Mute delay time:** 3 secs  
**Secondary voltages (Amp. / Driver / Pre.):**  $\pm 46.8\text{ V} / \pm 7.5\text{ V} / \pm 13.5\text{ V}$   
**Max output offset voltage (each channel):**  $\pm 15\text{ mV}$   
**Standby current:** 1.8 mA (typical)  
**Quiescent consumption @ 12V / 14V4:** 1.22 A / 1.38 A (no idle current regulation)  
**Idle current regulation (no signal):** 0.08 A (each channel)  
**Quiescent consumption @ 12V / 14V4:** 1.54 A / 1.70 A (with idle current setted)  
**Thermal protection consumption:** 1.7 A  
**Battery ground vs secondary ground decoupling:** 125 Ohm  
**Body ground vs battery ground decoupling:** 65 Ohm  
**Bandwidth (-3dB ÷ 1 Watt):** < 5 Hz ÷ 150 KHz  
**Input sensitivity (Power rating ref):** 0.2 V ÷ 5 V  
**Input impedance @ 1 KHz (STEREO input):** 11 KOhm  
**Input capacitance @ 1 KHz (STEREO input):** 220 pF  
**Input ground decoupling:** 15R  
**S/N ratio (AP filter 10 Hz - 500 KHz) – Power rating ref:** 87 dB  
**S/N ratio (AP filter 10 Hz - 22 KHz) – Power rating ref:** 109 dB (“A” weighted)  
**Eq. Input noise (AP filter 10 Hz - 500 KHz):** 10 uV  
**Eq. Input noise (AP filter 10 Hz - 22 KHz):** 0.79 uV (“A” weighted)  
**Channel separation@ 100Hz / 1KHz / 10KHz – 10 Watt ref:** 83 dB / 73 dB / 56 dB  
**Xover functions:** HIGH Pass & LOW Pass (BAND Pass allowed)  
(20 ÷ 175Hz) & (50 ÷ 300Hz)  
**Filter slope - Filter "Q":** 12 dB/oct - 0.7 (Stereo & Mono)  
**Thermal cutoff Threshold:** 88 °C ( $\pm 5^\circ\text{C}$ )  
**ProSPEED® Fan Controller Threshold:** 55 °C ( $\pm 5^\circ\text{C}$ )  
**Damping factor @ 100 Hz - 10 Watt ref (Right / Left):** 83 / 91 [Front] - 116 / 137 [Rear]  
**Damping factor @ 1 KHz - 10 Watt ref (Right / Left):** 82 / 99 [Front] - 113 / 137 [Rear]  
**Damping factor @ 10 KHz - 10 Watt ref (Right / Left):** 75 / 89 [Front] - 93 / 119 [Rear]  
**Output impedance @ 1 KHz - 10 Watt ref (Right / Left):** 40.3 mOhm / 48.9 mOhm [Front] - 35.4 mOhm / 29.2 mOhm [Rear]  
**Load drive limitations (\*):** 1 Ohm / 2 Ohm (Stereo / Bridged)  
**Suggested fuse:** 150 A (Internal)

(\*) **VERY IMPORTANT NOTE - READ CAREFULLY**

4 Ohm ST or 8 Ohm BTL – CONTINUOUS SINEWAVE SIGNAL – pure resistive load or speaker load  
2 Ohm ST or 4 Ohm BTL – MUSICAL SIGNAL – pure resistive load or speaker load  
1 Ohm ST or 2 Ohm BTL – MUSICAL SIGNAL – speaker load only