

AS 100.4

[Rev. 2.0 - 2012/06]

4-channel AB class amplifier

CEA-2006-A SPECIFICATIONS

POWER RATING: 100 Watt per channel @ 4 Ohm < 1% THD+N
SN RATIO: >90 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)

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| TARGET POWERS: | 100 Watt per channel @ 4 Ohm 155 Watt per channel @ 2 Ohm 310 Watt BTL mode @ 4 Ohm 480 Watt BTL mode @ 2 Ohm (*) | |
| EFFECTIVE POWERS: | 110 Watt (80 Watt @12V6) x 4 162 Watt (118 Watt @12V6) x 4 324 Watt (236 Watt @12V6) x 2 | 46.6 A (η = 65.5 %) @ 4 Ohm / ST mode / 1% THD / 1KHz 79.8 A (η = 56.4 %) @ 2 Ohm / ST mode / 1% THD / 1KHz 79.8 A (η = 56.4 %) @ 4 Ohm / BTL mode / 1% THD / 1KHz |
| THD @ 4 Ohm / ST mode: | | < 0.02 % (1KHz / 90% Power rating ref) |
| THD @ 2 Ohm / ST mode: | | < 0.03 % (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 (± 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.): | | ±34 V / ±7.7 V / ±13.5 V |
| Max output offset voltage (each channel): | | ±15 mV |
| Standby current: | | 1.8 mA (typical) |
| Quiescent consumption @ 12V6 / 14V4: | | 0.61 A / 0.65 A (no idle current regulation) |
| Idle current regulation (no signal): | | 0.04 A (each channel) |
| Quiescent consumption @ 12V6 / 14V4: | | 0.77 A / 0.81 A (with idle current setted) |
| Thermal protection consumption: | | 1 A |
| Battery ground vs secondary ground decoupling: | | 125 Ohm |
| Body ground vs battery ground decoupling: | | 70 Ohm |
| Bandwidth (-3dB ÷ 1 Watt): | | < 5 Hz ÷ 200 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: | | 90 dB |
| S/N ratio (AP filter 10 Hz - 22 KHz) – Power rating ref: | | 110 dB (“A” weighted) |
| Eq. Input noise (AP filter 10 Hz - 500 KHz): | | 6.42 uV |
| Eq. Input noise (AP filter 10 Hz - 22 KHz): | | 0.64 uV (“A” weighted) |
| Channel separation@ 100Hz / 1KHz / 10KHz – 10 Watt ref: | | 79 dB / 72 dB / 54 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 (±5°C) |
| ProSPEED® Fan Controller Threshold: | | 55 °C (±5°C) |
| Damping factor @ 100 Hz - 10 Watt ref (Right / Left): | | 89 / 108 [Front] - 133 / 175 [Rear] |
| Damping factor @ 1 KHz - 10 Watt ref (Right / Left): | | 89 / 109 [Front] - 131 / 170 [Rear] |
| Damping factor @ 10 KHz - 10 Watt ref (Right / Left): | | 82 / 99 [Front] - 115 / 151 [Rear] |
| Output impedance @ 1 KHz - 10 Watt ref: | | 45 mOhm / 37 mOhm [Front] - 30 mOhm / 23 mOhm [Rear] |
| Load drive limitations (*): | | 1 Ohm / 2 Ohm (Stereo / Bridged) |
| Suggested fuse: | | 80 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