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ZERO 3

2-channel AB class amplifier

[Rev 2.0 – 2012.07]

CEA-2006-A SPECIFICATIONS

POWER RATING: **270 Watt per channel @ 4 Ohm < 1% THD+N**
SN RATIO: **>71 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:
270 Watt per channel @ 4 Ohm
520 Watt per channel @ 2 Ohm
1040 Watt BTL mode @ 4 Ohm
1850 Watt BTL mode @ 2 Ohm (*)

EFFECTIVE POWERs:	**274** Watt (274 Watt @12V6) x 2	58.9 A (η = 65.1 %) @ 4 Ohm / ST mode / 1% THD / 1KHz
	522 Watt (522 Watt @12V6) x 2	124.8 A (η = 58.1 %) @ 2 Ohm / ST mode / 1% THD / 1KHz
	1044 Watt (1044 Watt @12V6) x 1	124.8 A (η = 58.1 %) @ 4 Ohm / BTL mode / 1% THD / 1KHz

THD @ 4 Ohm / ST mode:	**< 0.075 %** (1KHz / 90% Power rating ref)
THD @ 2 Ohm / ST mode:	**< 0.080 %** (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:	**Regulated**
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. / Drive / Pre.):*	**±47.3 V / ±11 V / ±15.7 V**
***Max output offset voltage** (each channel):*	**±15 mV**
Standby current:	**1.8 mA (typical)**
***Quiescent consumption** @ 12V6:*	**1.05 A** (no idle current regutation)
***Idle current regulation** (no signal):*	**0.1 A** (each channel)
***Quiescent consumption** @ 12V:*	**1.25 A** (with idle current setted)
Thermal protection consumption:	**1.5 A**
Battery ground vs secondary ground decoupling:	**1 KOhm**
Body ground vs battery ground decoupling:	**65 Ohm**
***Bandwidth** (-3dB ÷ 1 Watt):*	**< 5 Hz ÷ 85 KHz**
***Input sensitivity** (Power rating ref):*	**0.2 V ÷ 5 V** (0.8 V ÷ 20V in High Level mode)
***Input impedance** @ 1 KHz (STEREO input):*	**11 Kohm** (47 Ohm in High Level mode)
***Input capacitance** @ 1 KHz (STEREO input):*	**220 pF**
Input ground decoupling:	**47R** (50 KOhm in High Level mode)
***S/N ratio** (AP filter 10 Hz - 500 KHz) – Power rating ref:*	**63 dB**
***S/N ratio** (AP filter 10 Hz - 22 KHz) – Power rating ref:*	**96 dB ("A" weighted)**
***Eq. Input noise** (AP filter 10 Hz - 500 KHz):*	**133,8 uV**
***Eq. Input noise** (AP filter 10 Hz - 22 KHz):*	**3 uV ("A" weighted)**
***Channel separation**@ 100Hz / 1KHz / 10KHz – 10 Watt ref:*	**64 dB / 57 dB / 58 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)*:*	**3158 / 3151**
***Damping factor** @ 1 KHz - 10 Watt ref* (Right / Left)*:*	**3167 / 3160**
***Damping factor** @ 10 KHz - 10 Watt ref* (Right / Left)*:*	**701 / 630**
***Output impedance** @ 1 KHz - 10 Watt ref* (Right / Left)*:*	**1.3 mOhm / 1.3 mOhm**
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