

# ONE 120.2

2-channel AB class amplifier

[ Rev 2.0 – 2012.04 ]

## CEA-2006-A SPECIFICATIONS

**POWER RATING: 120 Watt per channel @ 4 Ohm < 1% THD+N**  
**SN RATIO: >81 dBA (reference: 1 Watt into 4 Ohm)**

## MOS SPECIFICATIONS (Tcase = 25 °C / 4 Ohm stereo / 0.4V input level @ 14.4 Volt if not otherwise specified)

**TARGET POWERS:**  
120 Watt x 2 - ST @ 4 Ohm  
175 Watt x 2 - ST @ 2 Ohm  
350 Watt x 1 - BTL @ 4 Ohm

**EFFECTIVE POWERS:**  
123 Watt (93 Watt @12V6) x 2  
182 Watt (139 Watt @12V6) x 2  
364 Watt (278 Watt @12V6) x 1

**THD @ 4 Ohm / ST mode:**  
**THD @ 2 Ohm / ST mode:**  
**DIM @ 4 Ohm / ST mode:**  
**DIM @ 2 Ohm / ST mode:**

@ 4 Ohm / ST mode / 1% THD / 1KHz - **26.7 A** ( $\eta = 64.0 \%$ )  
@ 2 Ohm / ST mode / 1% THD / 1KHz - **45.8 A** ( $\eta = 55.2 \%$ )  
@ 4 Ohm / BTL mode / 1% THD / 1KHz - **45.8 A** ( $\eta = 55.2 \%$ )  
< **0.02 %** (1KHz / 90% Power rating ref)  
< **0.02 %** (1KHz / 90% Power rating ref)  
< ---- % (Power rating ref)  
< ---- % (Power rating ref)

**DC-DC converter typology:**  
**Conversion frequency:**

**Unregulated**  
**45 KHz** ( $\pm 6 \%$ )  
**10.5 V ÷ 15 V**  
**11 V ÷ 14.4 V**  
**9.5 V / 8.0 V**  
**3 secs**  
 **$\pm 36.5 V / \pm 13.8 V / \pm 15.2 V$**   
 **$\pm 15 mV$**   
**< 0.1 mA (typical)**

**Absolute maximum operation supply voltage range:**  
**Recommended operation supply voltage range:**  
**Power-on/Power-off Voltage Threshold:**  
**Mute delay time:**  
**Secondary voltages (Amp. / Driver / Pre.):**  
**Max output offset voltage (each channel):**  
**Standby current:**

**0.57 A / 0.65 A** (no idle current regulation)  
**0.05 A**  
**0.63 A / 0.75 A** (with idle current set)  
**0.18 A**  
**1K Ohm**  
**68 Ohm**  
**< 5 Hz ÷ 150 KHz**  
**0.4 Vrms ÷ 16 Vrms**  
**11 Kohm** [Low Level] / **47R** [High Level]  
**220 pF** [Low Level] / **10 nF** [High Level]  
**47R** [Low Level] / **50 Kohm** [High Level]

**Quiescent consumption @ 12V6 / 14V4:**  
**Idle current regulation @ 14V4 (no signal):**  
**Quiescent consumption @ 12V6 / 14V4:**  
**Thermal protection consumption:**  
**Battery ground vs secondary ground decoupling:**  
**Body ground vs battery ground decoupling:**  
**Bandwidth (-3dB ÷ 1 Watt):**  
**Input sensitivity (Power rating ref):**  
**Input impedance @ 1 KHz (STEREO input):**  
**Input capacitance @ 1 KHz (STEREO input):**  
**Input ground decoupling:**  
**S/N ratio (AP filter 10 Hz - 500 KHz) – Power rating ref:**  
**S/N ratio (AP filter 10 Hz - 22 KHz) – Power rating ref:**  
**Eq. Input noise (AP filter 10 Hz - 500 KHz):**  
**Eq. Input noise (AP filter 10 Hz - 22 KHz):**  
**Channel separation @ 100Hz / 1KHz / 10KHz – 10 Watt ref:**  
**Features:**

**85 dB**  
**102 dB (“A” weighted)**  
**23.5 uV**  
**3.4 uV (“A” weighted)**  
**82 dB / 73 dB / 54 dB**  
**HIGH Pass or LOW Pass**  
**(45 ÷ 225Hz - 12dB/oct)**  
**Remote Volume Control** (low pass only)  
**(-12dB ÷ 0dB)**  
**Front Stage Adjuster**  
**High Low Adapter** (auto switch-on)  
**88 °C** ( $\pm 5^{\circ}C$ )  
**50 °C** ( $\pm 5^{\circ}C$ )  
**101 / 103**  
**104 / 106**  
**98 / 99**  
**2 Ohm / 4 Ohm** (Stereo / Bridged)  
**2x20 A** (onboard)

**Thermal cutoff Threshold:**

**Cooling Fan Temperature Threshold:**

**Damping factor @ 100 Hz - 10 Watt ref (Right / Left):**

**Damping factor @ 1 KHz - 10 Watt ref (Right / Left):**

**Damping factor @ 10 KHz - 10 Watt ref (Right / Left):**

**Load drive limitations (\*):**

**Suggested fuse:**

(\*) **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