

ONE 60.4

4-channel AB class amplifier

[Rev 2.0 – 2011.11]

CEA-2006-A SPECIFICATIONS

POWER RATING: 60 Watt per channel @ 4 Ohm < 1% THD+N
SN RATIO: >84 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:
60 Watt x 4 - ST @ 4 Ohm
90 Watt x 4 - ST @ 2 Ohm
180 Watt x 2 - BTL @ 4 Ohm

EFFECTIVE POWERS:
 66 Watt (50 Watt @12V6) x 4
 94 Watt (72 Watt @12V6) x 4
 188 Watt (144 Watt @12V6) x 2

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 - **30.0 A** ($\eta = 61.1\%$)
 @ 2 Ohm / ST mode / 1% THD / 1KHz - **50.2 A** ($\eta = 52.0\%$)
 @ 4 Ohm / BTL mode / 1% THD / 1KHz - **50.2 A** ($\eta = 52.0\%$)
 < **0.02** % (1KHz / 90% Power rating ref)
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 < ---- % (Power rating ref)
 < ---- % (Power rating ref)

DC-DC converter typology:

Conversion frequency:

Unregulated

45 KHz ($\pm 6\%$)

Absolute maximum operation supply voltage range:

10.5 V ÷ 15 V

Recommended operation supply voltage range:

11 V ÷ 14.4 V

Power-on/Power-off Voltage Threshold:

9.5 V / 8.0 V

Mute delay time:

3 secs

Secondary voltages (Amp. / Driver / Pre.):

 $\pm 27.8\text{ V} / \pm 13.6\text{ V} / \pm 14.9\text{ V}$

Max output offset voltage (each channel):

 $\pm 15\text{ mV}$

Standby current:

< 0.1 mA (typical)

Quiescent consumption @ 12V6 / 14V4:

0.79 A / 0.83A (no idle current regulation)

Idle current regulation @ 14V4 (no signal):

0.05 A (each trimmer)

Quiescent consumption @ 12V6 / 14V4:

0.88 A / 0.93 A (with idle current set)

Thermal protection consumption:

0.2 A

Battery ground vs secondary ground decoupling:

1 KOhm

Body ground vs battery ground decoupling:

68 Ohm

Bandwidth (-3dB ÷ 1 Watt):

< 5 Hz ÷ 100 KHz

Input sensitivity (Power rating ref):

0.4 Vrms ÷ 16 Vrms

Input impedance @ 1 KHz (STEREO input):

11 Kohm [Low Level] / 47R [High Level]

Input capacitance @ 1 KHz (STEREO input):

220 pF [Low Level] / 10 nF [High Level]

Input ground decoupling:

47R [Low Level] / 50 Kohm [High Level]

S/N ratio (AP filter 10 Hz - 500 KHz) – Power rating ref:

83 dB

S/N ratio (AP filter 10 Hz - 22 KHz) – Power rating ref:

101 dB (“A” weighted)

Eq. Input noise (AP filter 10 Hz - 500 KHz):

28.3 uV

Eq. Input noise (AP filter 10 Hz - 22 KHz):

3.6 uV (“A” weighted)

Channel separation @ 100Hz / 1KHz / 10KHz – 10 Watt ref:

72 dB / 70 dB / 61 dB

Features:

HIGH Pass [Front] / HIGH Pass or LOW Pass [Rear]

(45 ÷ 225Hz - 12dB/oct) [Front] & [Rear]

Remote Volume Control [Rear] (low pass only)

(-12dB ÷ 0dB)

Front Stage Adjuster [Front] / Phase Shift 0° ÷ 180° [Rear]

High Low Adapter [Front] & [Rear] (auto switch-on)

88 °C ($\pm 5^{\circ}\text{C}$)50 °C ($\pm 5^{\circ}\text{C}$)

104 / 92 [Front] - 100 / 88 [Rear]

105 / 90 [Front] - 100 / 89 [Rear]

95 / 79 [Front] - 83 / 84 [Rear]

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