

PRELIMINARY

PRO 5|30

4-channel AB class / 1-channel D amplifier

[Rev. 3.0 – 2017/09]

CEA-2006-A SPECIFICATIONS

POWER RATING (@ 4 Ohm < 1% THD+N):

SN RATIO (ref.: 1 Watt into 4 Ohm):

SN RATIO Direct DSP (ref.: 1 Watt into 4 Ohm):

70Wx2 + 150Wx2 + 550Wx1

>75 dBA (CH1/2) >71 (CH3/4) >73 (CH5)

>83 dBA (CH1/2) >76 (CH3/4) >76 (CH5)

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

RATED POWERS:

85x2 Watt (CH1/2), 170x2 Watt (CH3/4), 600x1 Watt (CH5) [@ 4 Ohm]

EFFECTIVE POWERS:

1% THD [CH1/2/3/4] – 3% THD [CH5]

70x2 W (CH1/2) 150x2 W (CH3/4) @ 4 Ohm + 550x1 W (CH5) @ 4 Ohm

65x2 W (CH1/2) 135x2 W (CH3/4) @ 4 Ohm + 760x1 W (CH5) @ 2 Ohm

85x2 W (CH1/2) 195x2 W (CH3/4) @ 2 Ohm + 750x1 W (CH5) @ 2 Ohm

1300 Watt (total maximum power)

THD (90% power rating ref.)

4 Ohm / ST mode

2 Ohm / ST mode:

< 0.045 % (CH1/2 1% 1KHz) < 0.035 % (CH3/4 1% 1KHz) < 1.5 % (CH5 3% 100Hz)

< 0.05 % (CH1/2 1% 1KHz) < 0.04 % (CH3/4 1% 1KHz) < 3 % (CH5 3% 100Hz)

DC-DC converter typology / Conversion frequency:

Supply voltage range operation:

Power-on/Power-off Voltage Threshold:

Mute delay time:

Secondary voltages (VDD#12 / VDD#34 / VDD#5 / DRIVE / SERV):

Max output offset voltage (each channel):

Standby current:

Quiescent consumption @ 12V6 / 14V4:

Idle current regulation (no signal):

Quiescent consumption @ 14V4:

Thermal protection consumption:

Ground decoupling:

Bandwidth (-3dB ÷ 1 Watt):

Input sensitivity (Power rating ref):

Input impedance @ 1 KHz (STEREO input):

S/N ratio – Power rating ref:

S/N ratio DDSP – Power rating ref:

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

Xover functions (selectable filters):

Unregulated Push-Pull / 50 KHz (managed by microcontroller)

10 V ÷ 16 V (Absolute maximum) / 11 V ÷ 14.4 V (Recommended)

9 V / 8 V (6V sustaining for Start & Stop)

4 secs.

±33.1 V / ±45.3 V / ±84.7 V / ±14 V / ±15 V

±15 mV

< 1 mA (typical)

2.50 A / 2.66 A (no idle current regulation)

0.05 A (each channel)

2.76 A (with idle current settled)

140 mA

47R (RCA Input) / 1 KOhm (battery vs secondary) / 68 Ohm (body vs battery)

< 5 Hz ÷ 135 KHz (CH1/2); < 5 Hz ÷ 145 KHz (CH3/4); < 5 Hz ÷ 1.75 KHz (CH5 10Watt)

0.35 V ÷ 12 V (5.3 V in DDSP mode) [CH1/2/3/4] 0.14 V ÷ 5.9 V (3.1 V in DDSP mode) [CH5]

15 KOhm (LL) / 47 Ohm (HL)

67 dB (filter: 10 Hz - 500 KHz) / 94 dB (filter: 10 Hz - 22 KHz "A" weighted)

69 dB (filter: 10 Hz - 500 KHz) / 100 dB (filter: 10 Hz - 22 KHz "A" weighted)

75 dB / 75 dB / 62 dB

CH1/2= HP: 43 ÷ 500Hz(x1) or 430 ÷ 5000Hz(x10) [12 dB/oct – Q: 0.7]

CH3/4= HP: 50 ÷ 200Hz & LP:(430 ÷ 5000Hz) [12 dB/oct – Q: 0.7]

CH5= HP: 43 ÷ 200Hz [24 dB/oct]

DDSP - Direct DSP (bypass all the preamplifier circuitry but the differential input interface)

HL/LL - High Level / Low Level selectable input

Controlled via uC – Internally controlled via Atmel Processor

90°C (CH5 cutoff) / 100°C (Overall cutoff) / 70°C (resume to normal operation)

50°C (start) / 70°C (max speed)

319/397 [CH1/2] - 318/487 [CH3/4] - 15 [CH5]

291/375 [CH1/2] - 304/453 [CH3/4] - 10 [CH5]

178/199 [CH1/2] - 183/219 [CH3/4] - n.c. [CH5]

2 Ohm / 4 Ohm (Stereo / Bridged)

150 A (Internal)

500 / 205 / 55

5.4

Special features:

Thermal cutoff Threshold:

ProSPEED® Fan Controller 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:

Size (mm):

Weight (Kg):

(*) 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

2 Ohm – MUSICAL SIGNAL – pure resistive load or speaker load (only CH5)

