

1x600W

Class GH Subwoofer Amplifier

July 15th 2008

Output Power (RMS) @ 1% 100Hz 14.4V CEA 2006

Mono @ 4 Ohms 1x334 Watts @ 34A Eff. %

Mono @ 2 Ohms 1x609 Watts @ 69A Eff. %

Mono @ 1 Ohm* 1x577 Watts @ 70A Eff. %

*Switch on End plate

Frequency Response -3dB

11Hz - 190Hz

Crossover Range

30Hz - 190Hz

Sub Sonic Range

11Hz - 80Hz

Bass Boost

0-15dB @ 30Hz - 125hz

S/N Ratio (A wtg)

Ref 1 Watt 4Ω Ref 300Wx1 4Ω

Seperation

>82dB >107dB

NA NA

Input Sensitivity

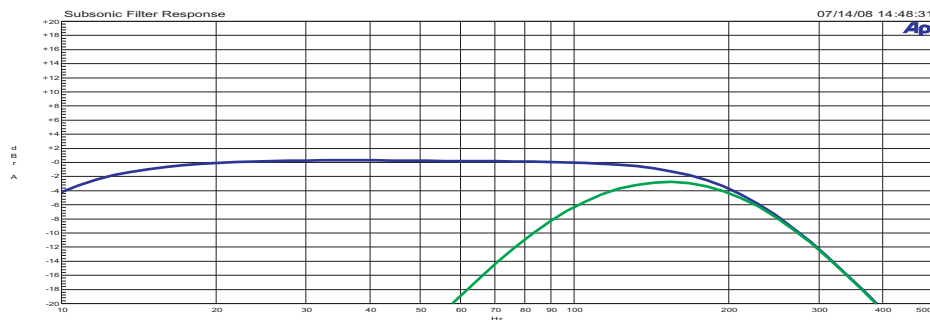
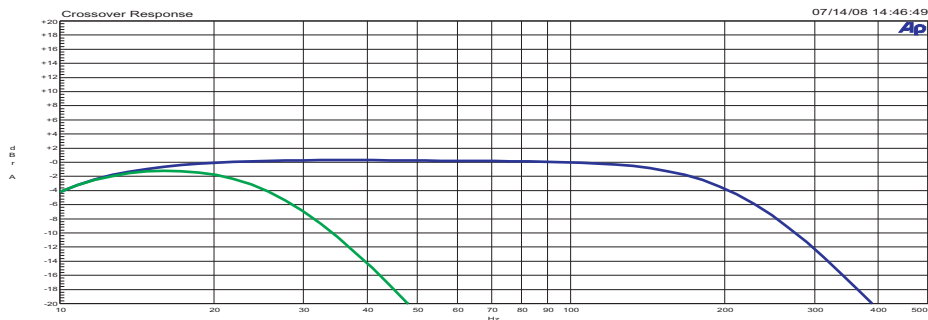
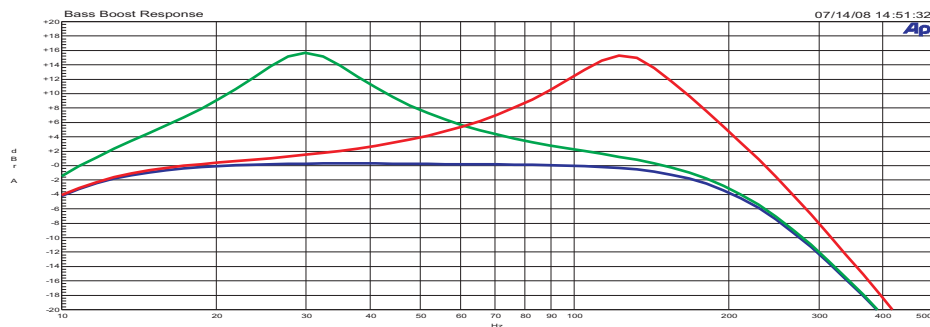
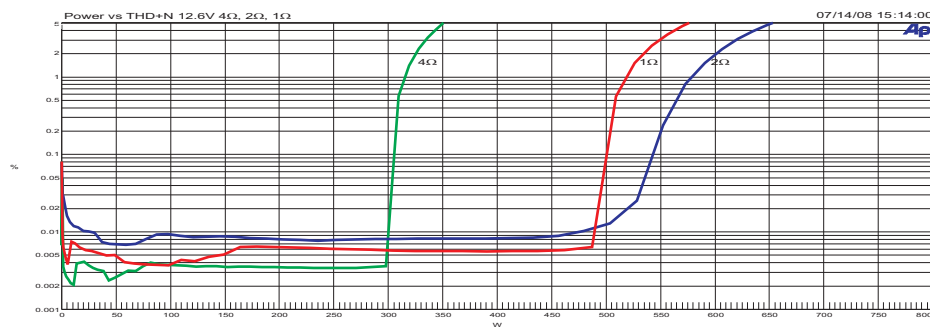
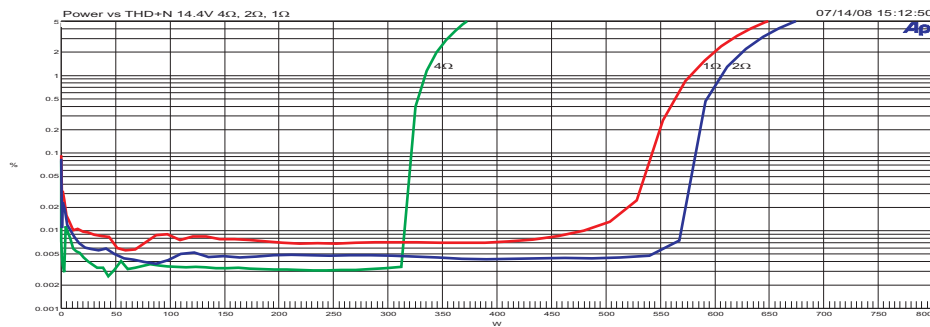
Low Level

0.8V - 6.2V

Input Impedance

10KΩ

Damping Factor 25W 4Ω 1000Hz >1000



Features:

High efficiency Class GH Hybrid Design Provides the clean sound of a class AB amplifier and much of the efficiency of a Class D.

Class GH Features vs. Class D

Damping factor 20 x higher

Distortion 20 x lower (< .01 %)

Very low EMI radiation. Leads to easier CE approval

Sanken output devices

Full control of Bass Boost amplitude (0-15dB) and Frequency

(30 - 125Hz) allows for greater control of bass sub woofer response

then Q only crossover controls

Two layer PCB with 2 Oz final copper weight on top and bottom layers.

Microprocessor controlled protection and diagnostics. With Lights to show error

Microprocessor controlled multi-speed fan

Similar power into both 2 and 1ohm loads

Output clip detection speeds up fan, and also used for DC output protection.

Turn on via Remote Lead, or Auto Sense off head unit speaker leads

Turn On connection can be used as a turn on output to control other equipment

Lead Free

Thermal Trip points.

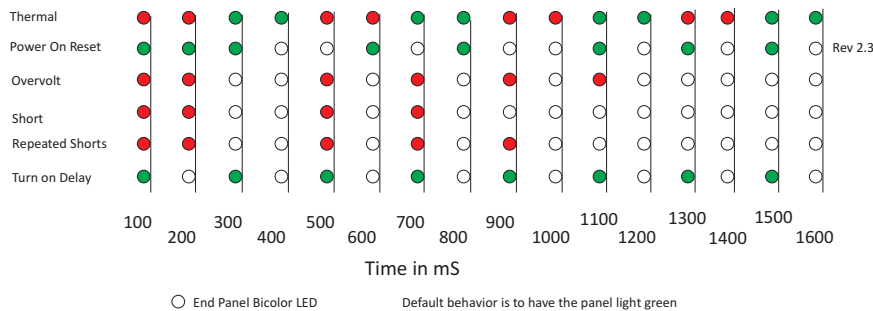
85C = Thermal Protection.

78C = Amp resumes from thermal protection condition


Overvoltage Points

17.1V Overvolt Protection

15.8V Amplifier Resumes

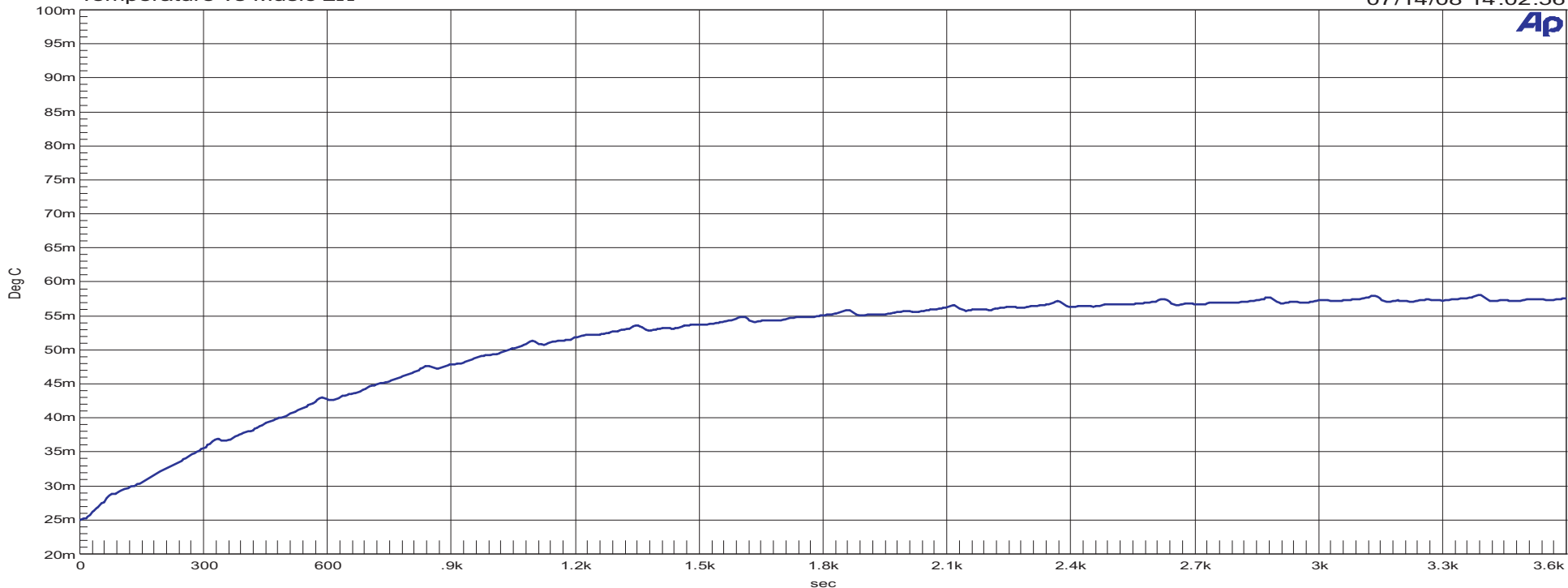


VAMP(H) Rail	VAMP(L) Rail	Vop Rail	Vdrv
54V	32V	17V	58V
Switching Frequency	Idle Current	Bias across	
27kHz	1.3A	0.1Ω Resistors	
1 mV			
Transformer Turns Ratios			
4:12:8:5:2			
Choke Turns Ratios			
12:20			

Model	Board Revision	Testing Sample Level & Serial Number
	1.08(Hand Rev to 1.09)	Prototype SN:P2
Document Revision	Testing Date	
1.00	July 14 th 2008	
Document Date	Signature	
July 15 th 2008	 Richard Greenway	

Temperature vs Music 2Ω

07/14/08 14:02:56



Temperature Vs Music 1Ω

07/14/08 17:20:55

