BMA/PMA 500.1 1x500 Watt

Class GH Subwoofer Amplifier

Oct 20th 2009

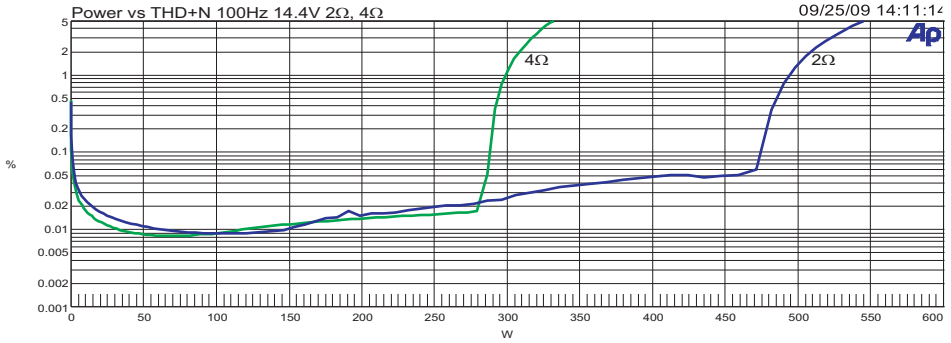
Output Power (RMS) @ 1%	100Hz 14.4V CEA 2006			
Mono @ 4 Ohms	1x312	Watts @	28A	Eff. 76%
Mono @ 2 Ohms	1x509	Watts @	48A	Eff. 74%
Mono @ 1 Ohm	NA	Watts @	A	Eff. %

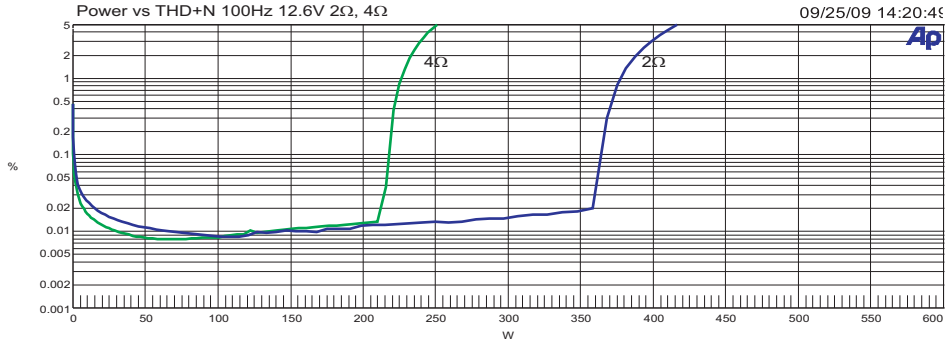
Frequency Response -3dB	20Hz - 200Hz
Crossover Range	30Hz - 200Hz
Sub Sonic Range	20Hz - 80Hz
Bass Boost	0-15dB @ 30Hz - 125hz

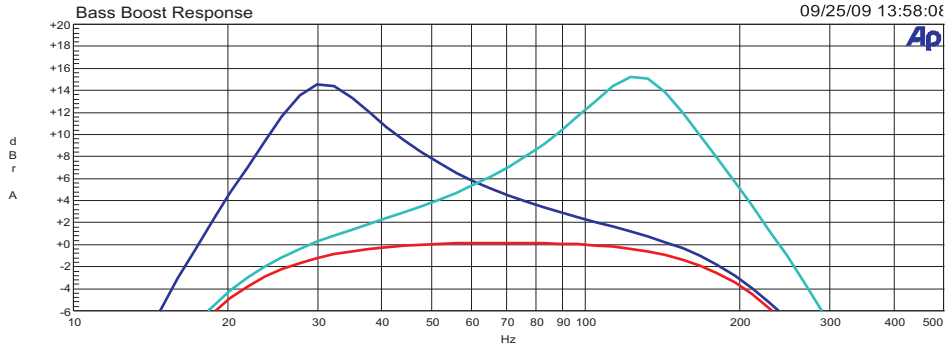
	Ref 1 Watt 4Ω	Ref 300Wx1 4Ω
S/N Ratio (A wtg)	>57dB	>82dB
Seperation	NA	NA

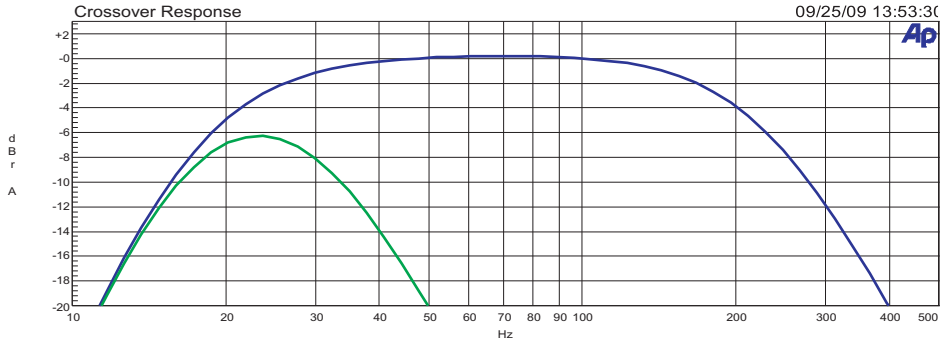
	Low Level
Input Sensitivity	0.3V - 3.5V

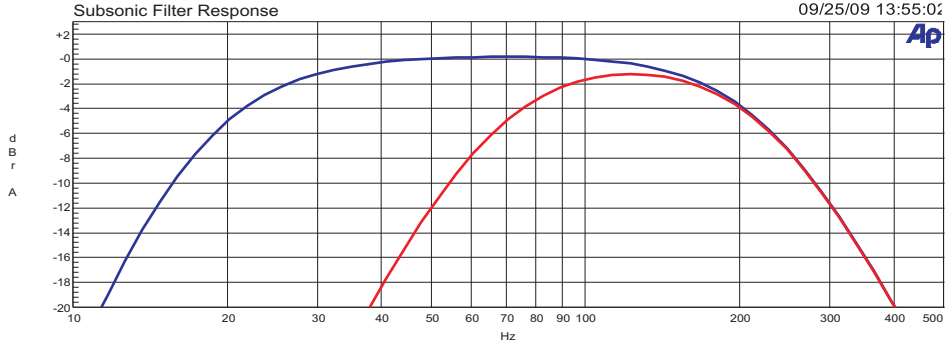
Input Impedance	10KΩ
Damping Factor 25W 4Ω 1000Hz	>1000







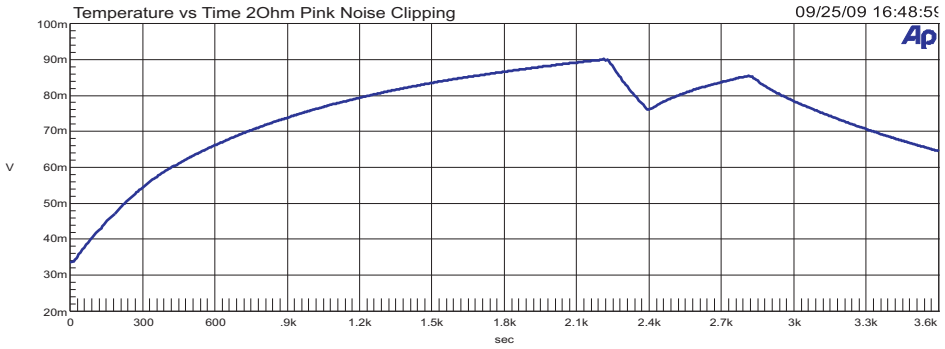


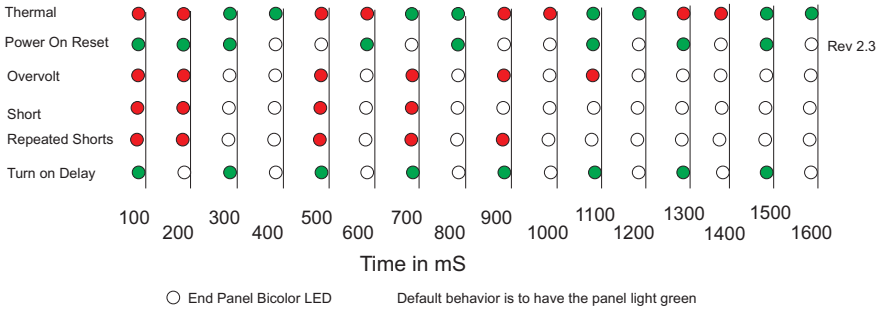


Features:

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
Multi-speed fan for efficient cooling of internal components.
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
Lead Free
Strap to a 2nd amplifier for 1x1000W 4ohm Amplifier
Control a string of amplifiers with the same controls of the first master amplifier

Thermal Trip points.
85C = Thermal Protection.
78C = Amp resumes from thermal protection condition
56C Fan speed increases to aid in cooling
52C and below. Amp is in normal operating conditions
Overvoltage Points
17.1V Overvolt Protection
15.8V Amplifier Resumes





VAMP(H) Rail	VAMP(L) Rail	Vop Rail	Vdrv
57V	33V	17V	63V

Switching Frequency	Idle Current	Bias across
28kHz	1.4A	0.05Ω Resistors 1 mV

Transformer Turns Ratios

Choke Turns Ratios
NA

Model	Board Revision	Testing Sample Level & Serial Number
BMA500.1	1.04A	Prototype SN:P2

Document Revision	Testing Date
1.2	Sept 24th 2009

Document Date	Signature
Oct 20th 2009	Richard Greenway