



SOUNDMAGUS TECHNOLOGY CO.,LTD.
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Soundmagus Car Amplifier Specification

1 Model number: X801



2 Features:

- 800W rms Class-D amplifier.
- 1 ohm load stable.
- Double Side PCB and SMD components.
- Adjustable Input level, LPF, Subsonic, bass boost function.
- Advanced short circuit, overload, over heat and low voltage protection.
- Easy bridgeable with same amplifier.
- Heavy duty terminals.
- Optional wired remote controller.



3 Detailed specs:

3.1 Test Condition.

All the specs were tested with following condition unless noted.

1. Power supply: 14.4V DC power supply
2. Test signal: 50Hz sine wave.
3. Loads: Resistor dummy load.
4. Environment: 25 degree C, open air.
5. Relative humidity: 70%.
6. Test Instruments: Audio Precision SYS-2322A.

3.2 Output power performance.

Following table is the RMS output power with THD+N value at 5%, 3%, 2% and 1%.

Power THD	RMS power (1ohm)	RMS power (2ohm)	RMS power(4ohm)
THD+N=5%	938W	722W	445W
THD+N=3%	856W	634W	386W
THD+N=2%	807W	587W	357W
THD+N=1%	746W	529W	321W

Table 1 Output Power with THD

Following chart shows the output power with THD curve at 4ohm load, 2ohm load and 1ohm load.

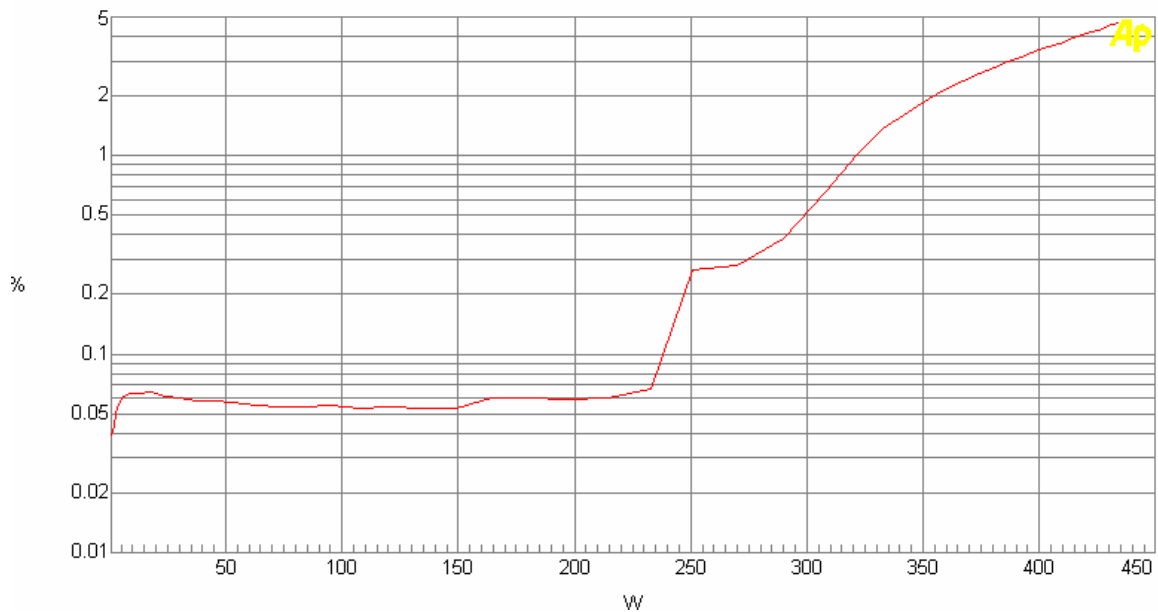


Chart 1. RMS output power @4ohm with THD



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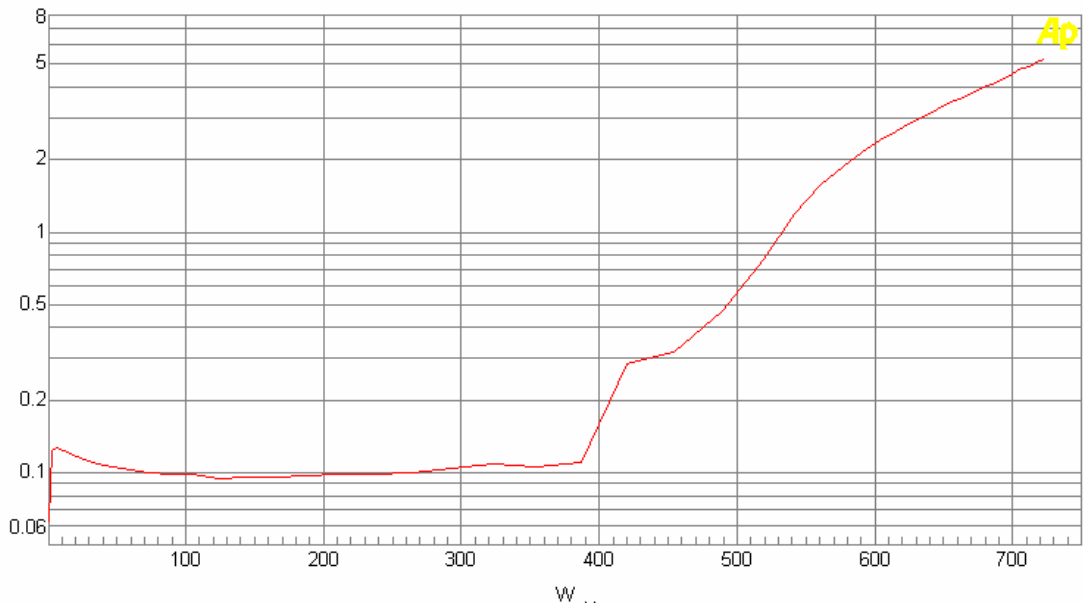


Chart 2. RMS output power @2ohm with THD

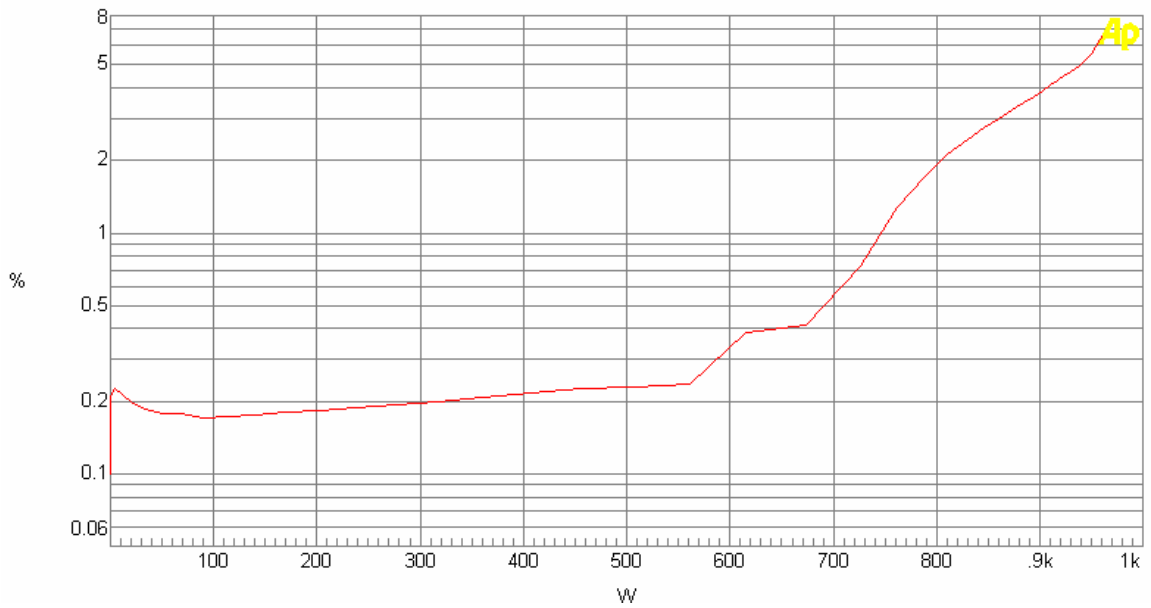


Chart 3. RMS power @1ohm with THD

3.3 Frequency Response

1. -3dB frequency response: 14.8Hz~181Hz.
2. LPF Crossover -3dB range: 44Hz~181Hz.
3. Subsonic Crossover -3dB range: 14.8Hz~54Hz.



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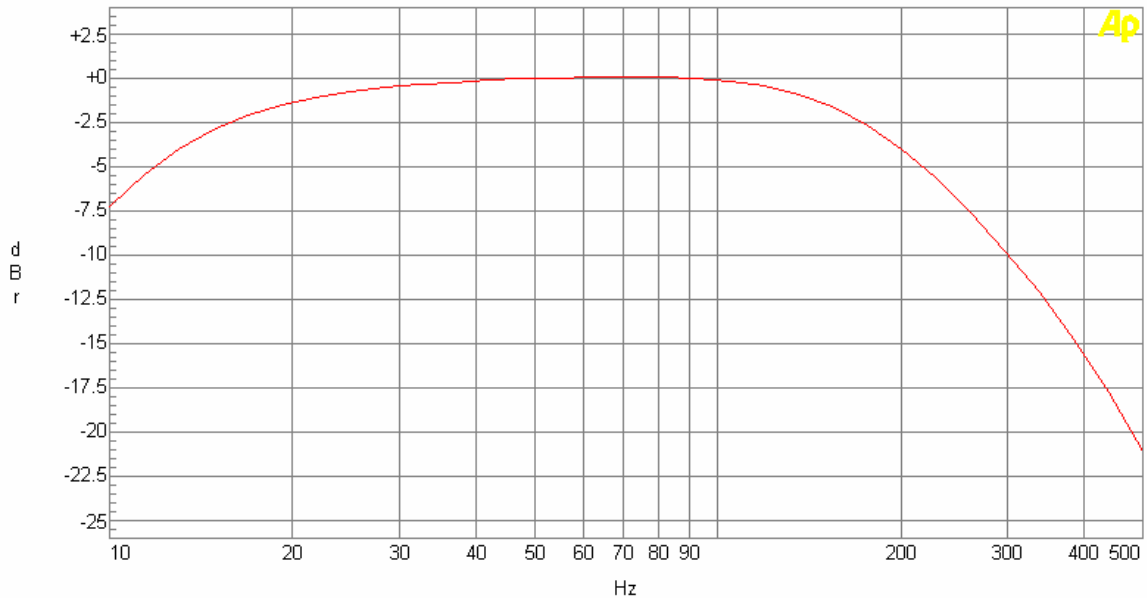


Chart 4. Frequency Response

3.4 LPF & Subsonic Filter features

1. LPF adjustable from 40Hz~180Hz, with slope as 60dB/Dec.
2. Subsonic Filter adjustable from 10Hz~50Hz, with slope as 40dB/Dec.

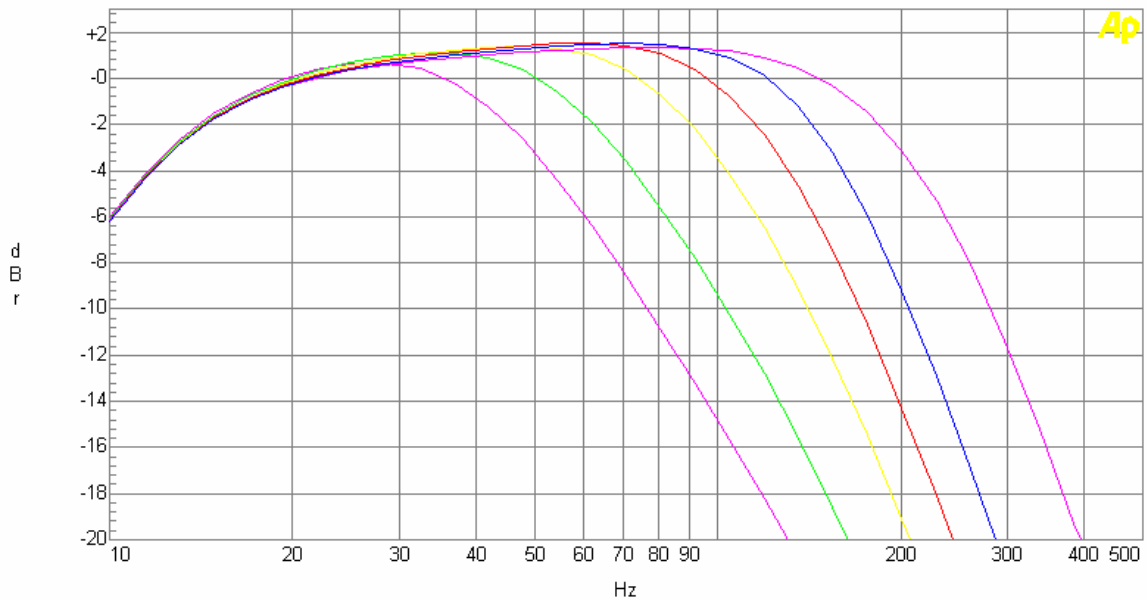


Chart 5. LPF response

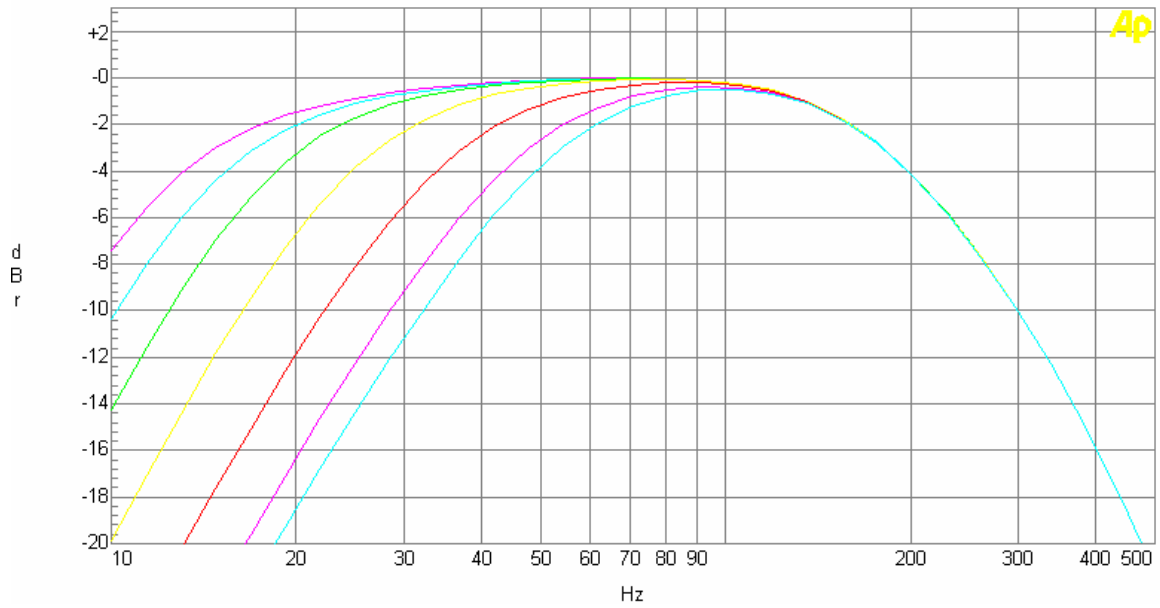


Chart 6. Subsonic Filter response

3.5 Bass Boost Feature

Bass boost center frequency is 55Hz, boost gain adjustable from 0~+12dB.

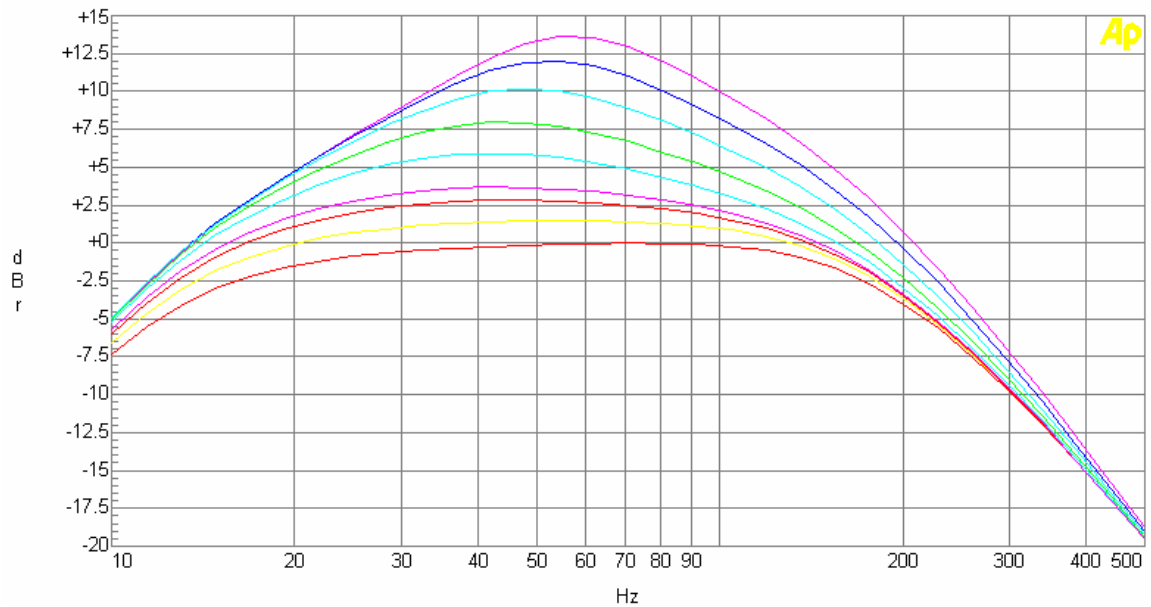


Chart 7. Bass boost response

3.6 THD+N

0.058%(A-weighted, 0~22KHz), test at 200Wrms output power, 4ohm load.



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3.7 Signal to noise ratio

92.8dB (A-weighted, 0~22KHz).

3.8 Input Level

0.12Vrms~5.32Vrms.

3.9 Protection System

1. Overload:

Protect less than 0.67Ohm load at full rated output power.

2. Short Circuit:

Full rated power short circuit protect test: passed.

Full rated power long last short circuit test: 10 minutes passed.

3. Over temperature:

Protect while inner temperature over 81 degree C.

4. Low voltage:

Protect while power supply voltage lower than 7.7V.

3.10 Idle current and Efficiency:

1. Idle current: 0.66A

2. Efficiency: 84.2% at 500W (2ohm)

3.11 Bridge method

X801 can be bridged with same amplifier through single RCA cable, no addition switch needed. All the adjustable functions on slave amplifier will follow master once be bridged.

3.12 Dimension

This amplifier's size is at 228mmX280mmX53mm(W,L,H).