



**SOUNDMAGUS TECHNOLOGY CO.,LTD.**  
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# Soundmagus Car Amplifier Specification

## 0 Model number: X401



## 1 Features:

- 400W rms Class-D amplifier.
- 1 ohm load stable.
- Double Side PCB and SMD components.
- Adjustable Input level, LPF, Subsonic function.
- Advanced short circuit, overload, over heat and low voltage protection.
- Easy bridgeable with same amplifier.
- Heavy duty terminals.
- Optional remote controller.

## 2 Detailed specs:

### 0.0 Test Condition.

All the specs were tested with following condition unless noted.



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

**1.0 Output power performance**

Following table is the RMS output power with THD+N(A-weighted, <22KHz) value at 5%, 3%, 2% and 1%.

Power THD+N	RMS power (1ohm)	RMS power (2ohm)	RMS power(4ohm)
5%	461W	358W	220W
3%	448W	322W	192W
2%	421W	293W	179W
1%	390W	271W	160W

Table 0 Output Power with THD+N

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

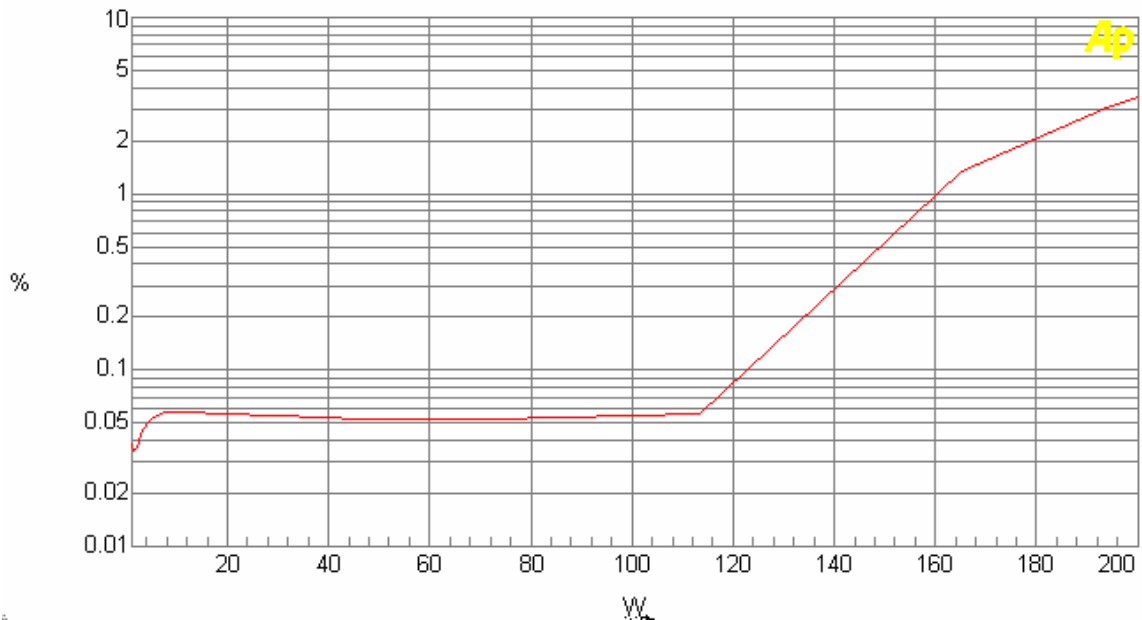


Chart 0. RMS output power @4ohm with THD+N



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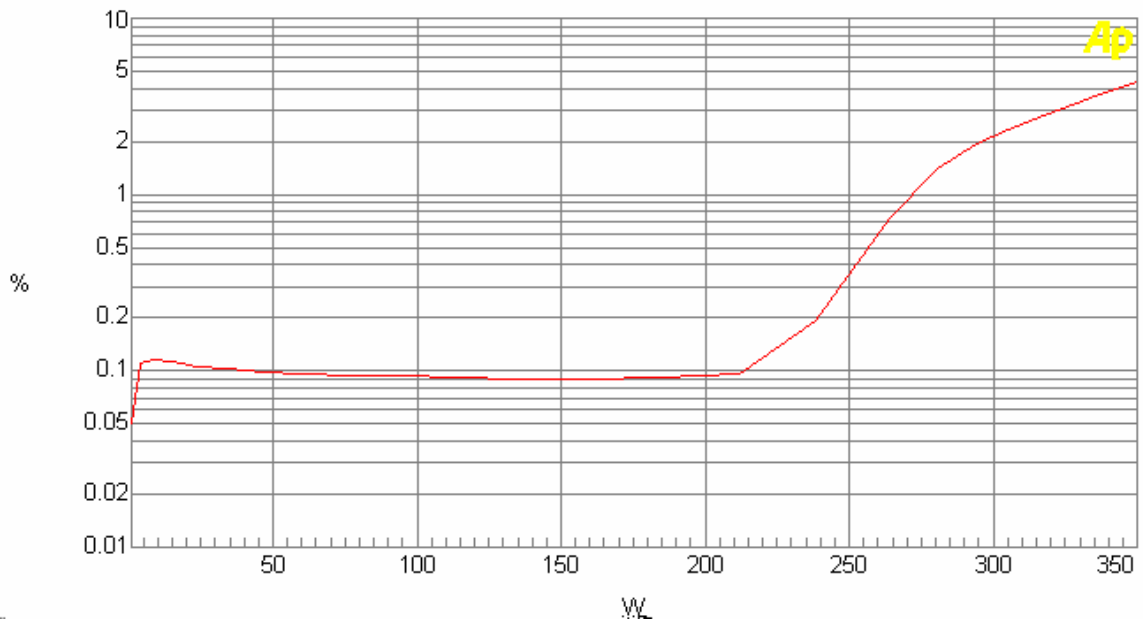


Chart 0. RMS output power @2ohm with THD+N

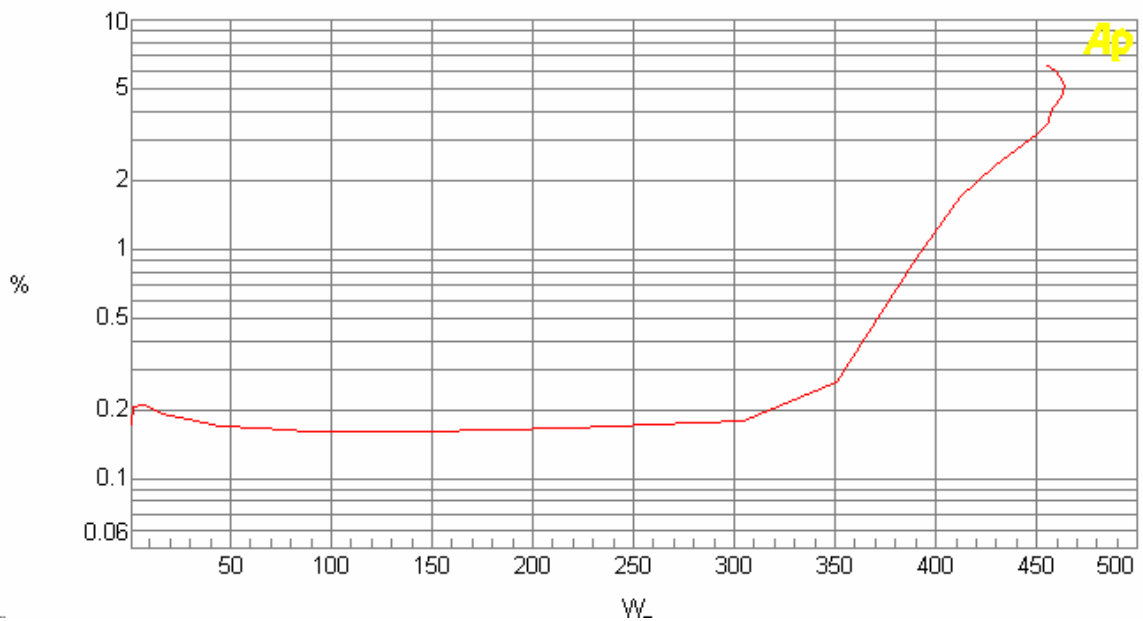


Chart 0. RMS power @1ohm with THD+N

## 0.0 Frequency Response

1. -3dB frequency response: 14Hz~183Hz.
2. -1dB frequency response: 21Hz~137Hz.

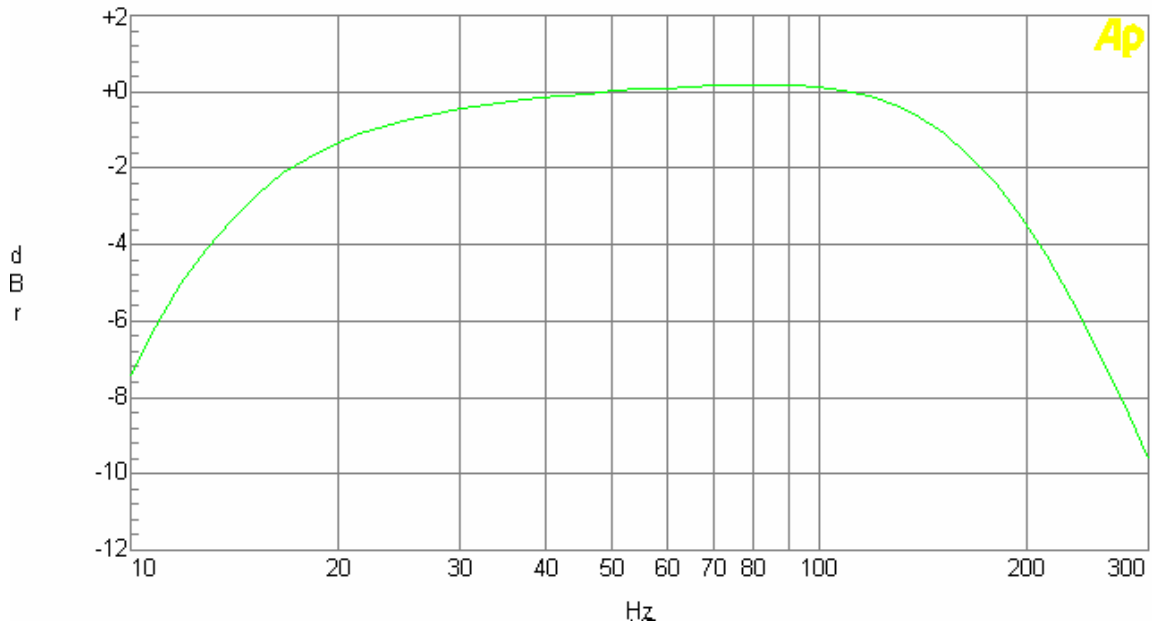


Chart 0. Frequency Response

## 0.0 LPF & Subsonic Filter features

- 0. LPF adjustable from 41Hz~183Hz.
- 0. Subsonic Filter adjustable from 14Hz~60Hz.

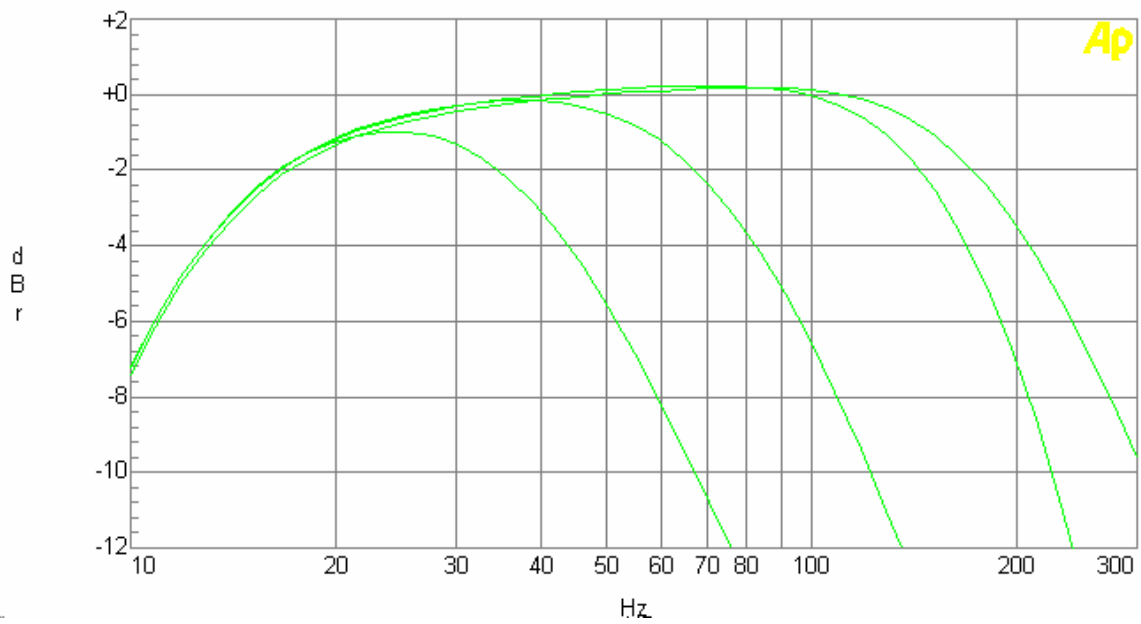


Chart 0. LPF response

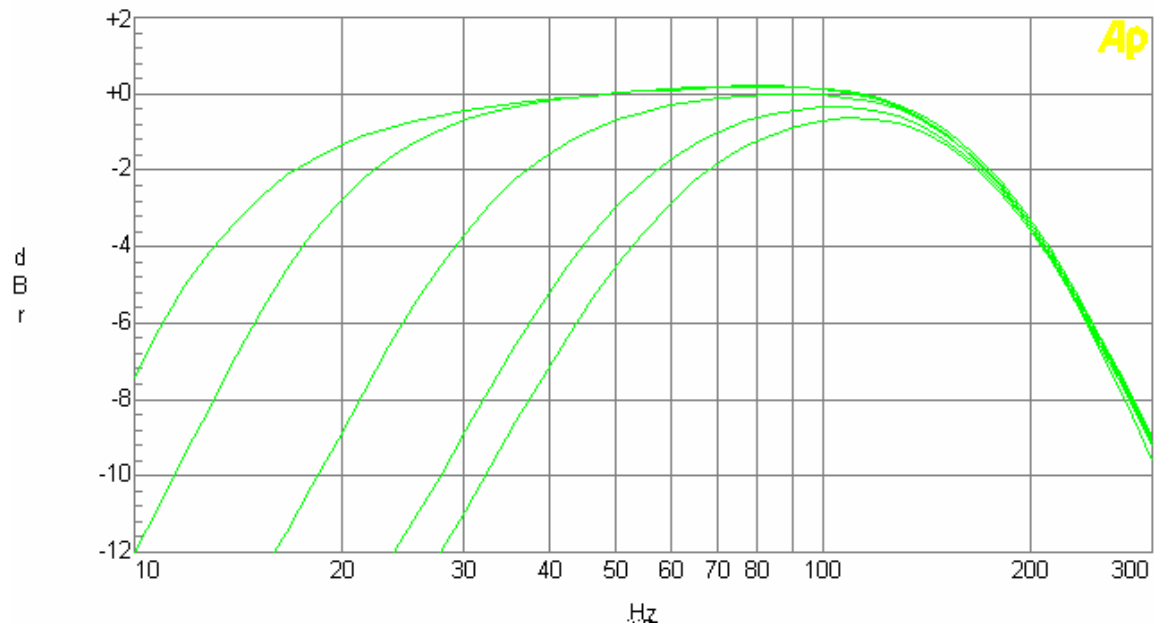


Chart 0. Subsonic Filter response

## 0.0 THD+N

THD+N=0.066%(A-weighted) @ 110W output power with 4ohm load.

## 0.0 Protection System

### 0. Overload:

Protect less than 0.67Ohm loads at full-scale output power.

### 0. Short Circuit:

Full rated power short circuit protect test: passed.

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

### 0. Over temperature:

Protect while inner temperature over 82 degree C.

### 0. Low voltage:

Protect while power supply voltage lower than 7.8V.

## 0.0 Idle current and Efficiency:

0. Idle current: 0.64A

0. Efficiency: 84% at 210W (2ohm)



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## 0.0 Bridge method

X401 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.

## 0.0 Dimension

This amplifier's size is at 228mmX200mmX52mm(W,L,H).