



Soundmagus Car Amplifier Specification

0 Model number: C160



1 Features:

- 4X160Wrms Class-AB amplifier.
- 2 ohm load stable.
- Double Side PCB and SMD components.
- Adjustable Input level, LPF, HPF.
- Advanced short circuit, overload, over heat and low voltage protection.
- 2-channel mode switch available.
- Gold-plated isolation terminals.

2 Detailed specs:

0.0 Test Condition.

All the specs were tested with following condition unless noted.

0. Power supply: 14.4V DC power supply
0. Test signal: 1KHz sine wave.



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- 0. Loads: Resistor dummy load.
- 0. Environment: 25 degree C, open air.
- 0. Relative humidity: 70%.
- 0. Test Instruments: Audio Precision SYS-2322A.

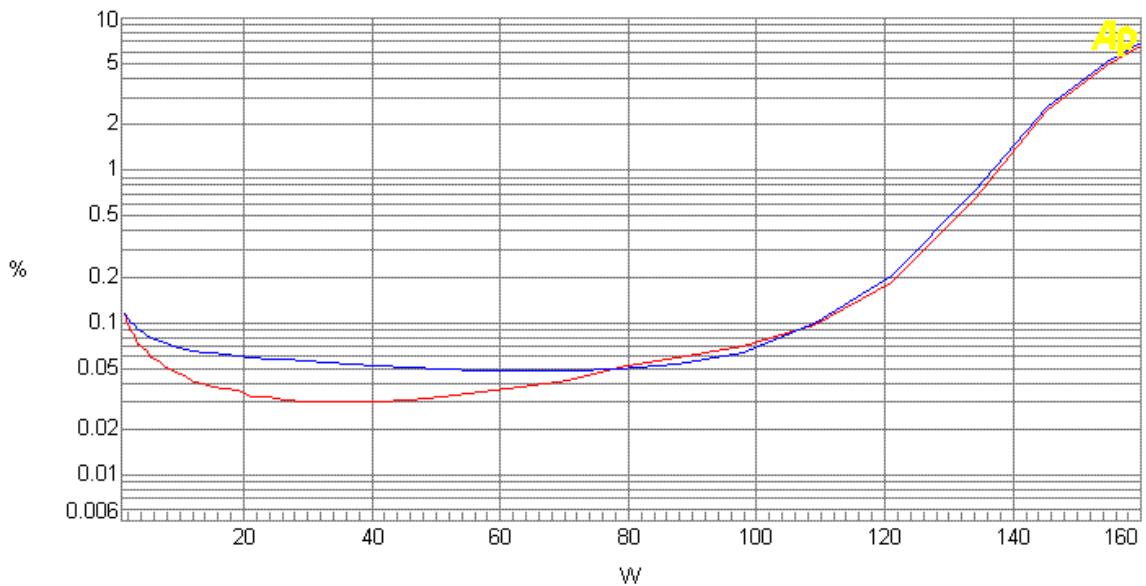
1.0 Output power performance.

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

Power THD+N	RMS power (4ohm)		RMS power (2ohm)		Bridged RMS power	
	Left	Right	Left	Right	8ohm	4ohm
THD+N=5%	156W	157W	210W	211W	312W	420W
THD+N=3%	147W	148W	192W	193W	294W	390W
THD+N=1%	136W	138W	152W	155W	277W	331W

Table 0 Output Power with THD+N

Following charts show the output power with THD curve at 4ohm load, 2ohm load stereo and bridged power at 8ohm, 4ohm.



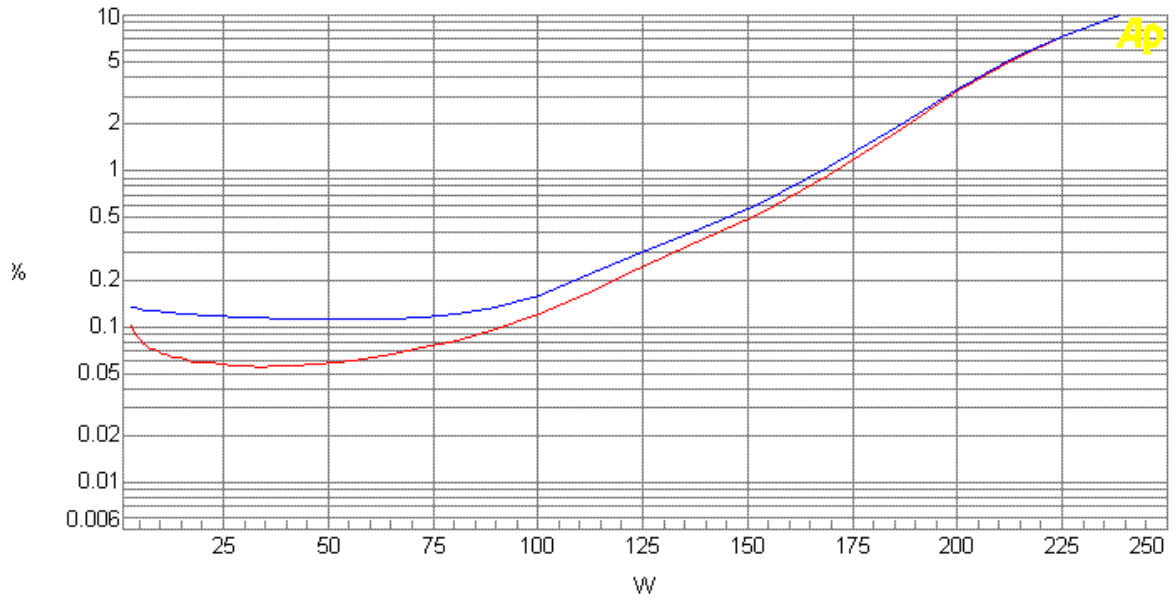
Chat 0. RMS output power @4ohm with THD+N



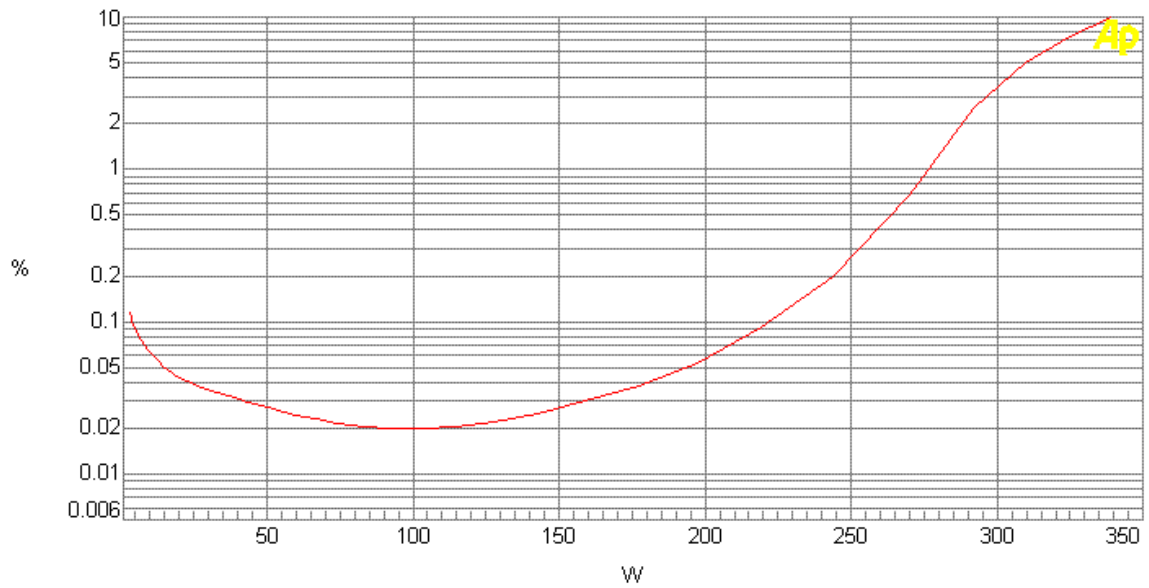
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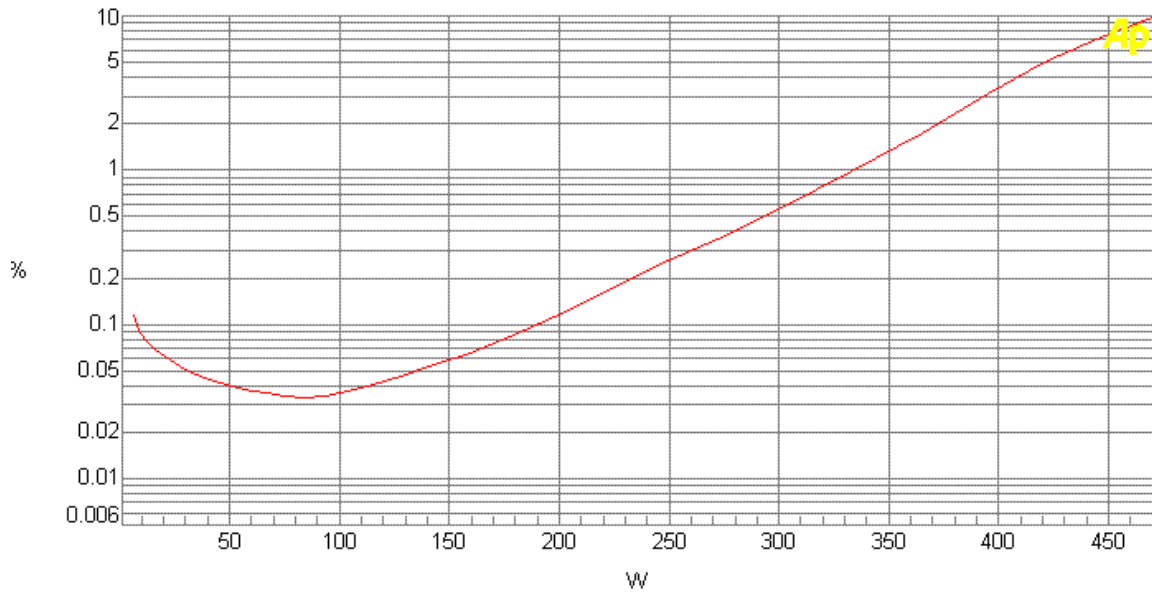
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Chat 1. RMS output power @2ohm with THD+N



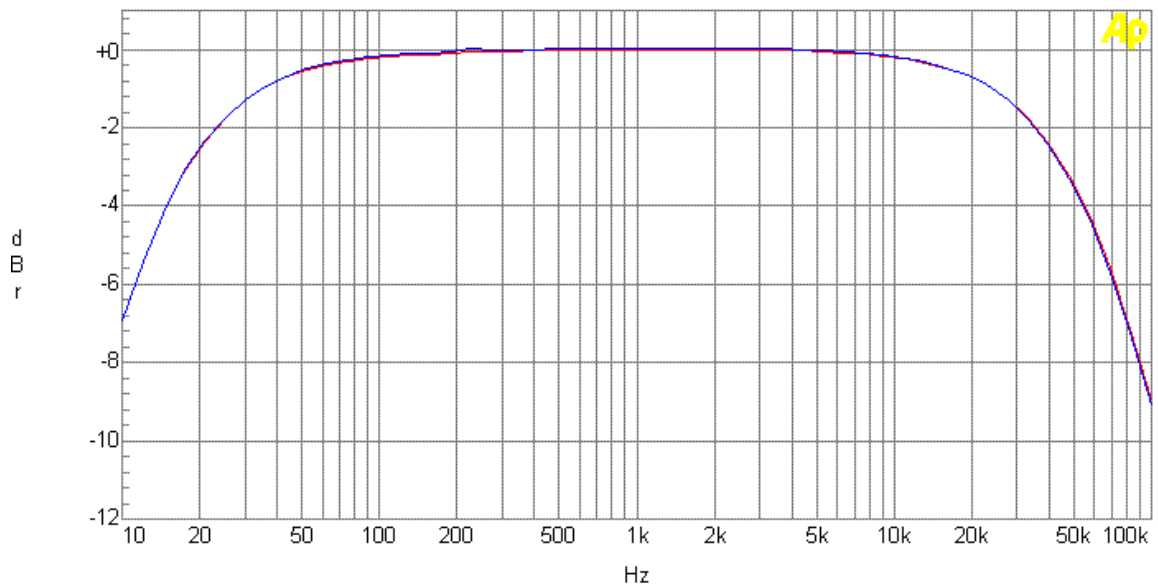
Chat 2. Bridged RMS power @8ohm with THD+N



Chat 3. Bridged RMS power @4ohm with THD+N

2.0 Frequency Response

1. -3dB frequency response: 15Hz~43KHz.



Chat 4. Frequency Response

3.0 LPF & HPF Filter feature

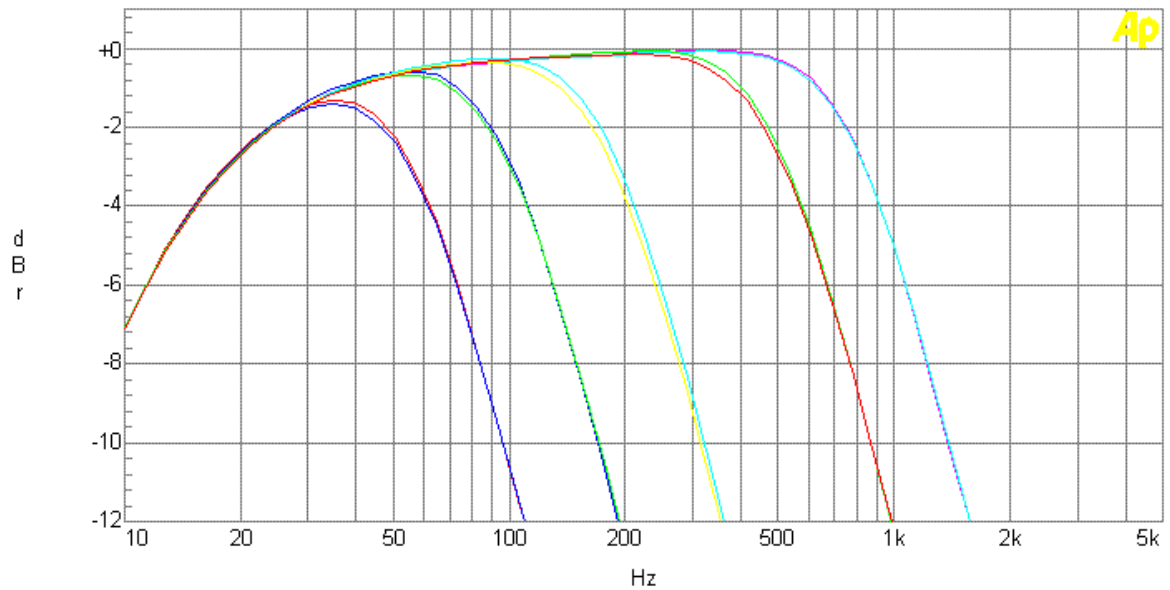
0. LPF adjustable from 55Hz~820Hz.
0. HPF adjustable from 55Hz~740Hz.



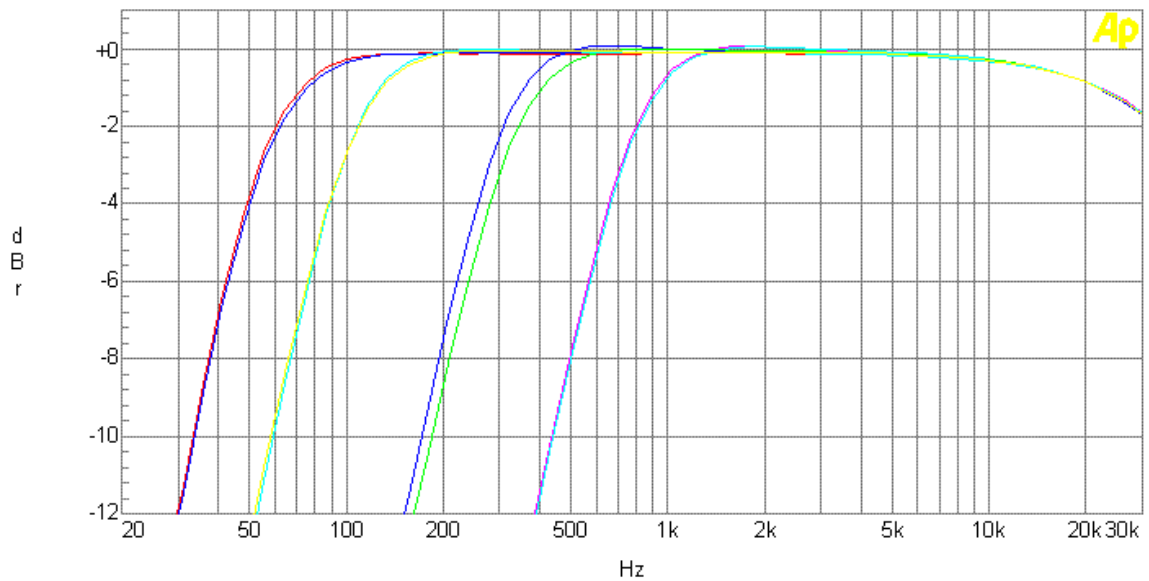
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Chat 5. LPF response



Chat 6. HPF Filter response

4.0 Total Harmonic Distortion

THD+N=0.033%(A-weighted) @ 40W with 4ohm load.

5.0 Protection System

0. Overload:

Protect at 1.2Ohm load at full rated output power.



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1. Short Circuit:

Full rated power short circuit protect test: passed.

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

2. Over temperature:

Protect while heat sink temperature over 80 degree C.

3. Low voltage:

Protect while power supply voltage lower than 7.8V.

6.0 Idle current and Efficiency:

0. Idle current: 0.72A.

0. Efficiency: 63% at 120W 4ohm load (stereo).

7.0 Dimension

This amplifier's size is at 228mmX347mmX53mm(W,L,H).