

L30 II

NFCA HEADPHONE AMP





Headphone amp/
Preamp application



Hi-Res Audio



3 gain settings

NFCA

Modules

<0.00006%

THD+N

144dB

DNR

<0.3uVrms *

Noise

<0.1Ω

Output Impedance

**3500mW x 2@16Ω
560mW x 2@300Ω**

Maximum output power

* The actual noise level is obtained by boosting the noise of L30 II by 100 times using a low noise amplifier in front of the APX555B then dividing the measured noise by 100 times.

What are the differences

	L30 II	L30
Amp	Improved NFCA	NFCA
THD+N	<0.00006%	<0.00007%
Dynamic Range	144dB	141dB
Output power at 300Ω load	560mW x2	280mW x2
Gain	-14dB/0dB/16.5dB	-9.9dB/0dB/9.5dB
Output Voltage	37Vpp	26Vpp

Improved NFCA

L30 II uses redesigned NFCA (Nested Feedback Composite Amplifier) module. It provides 2x output power at 300Ω load compared to L30.

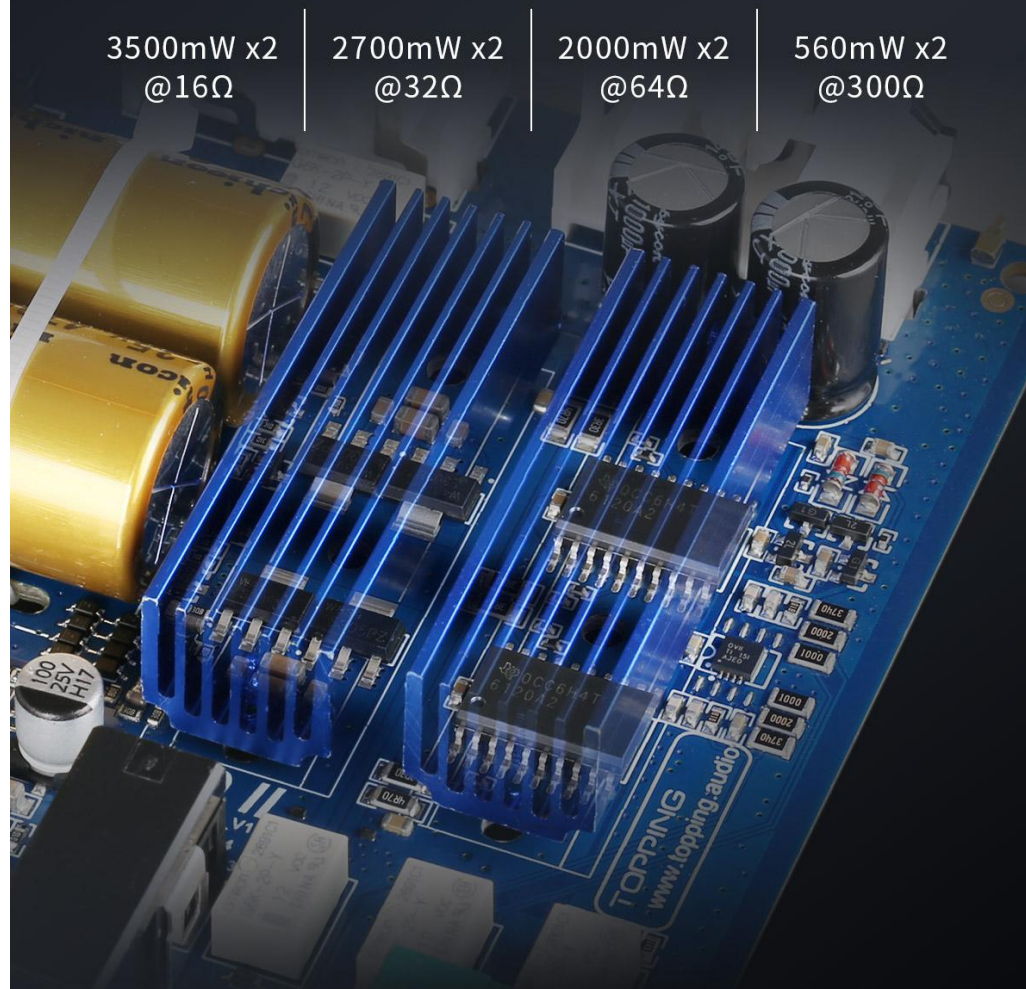
The new circuit has 0.3uV ultra low noise and 144dB dynamic range as well as 0.00006% THD+N.

3500mW x2
@16Ω

2700mW x2
@32Ω

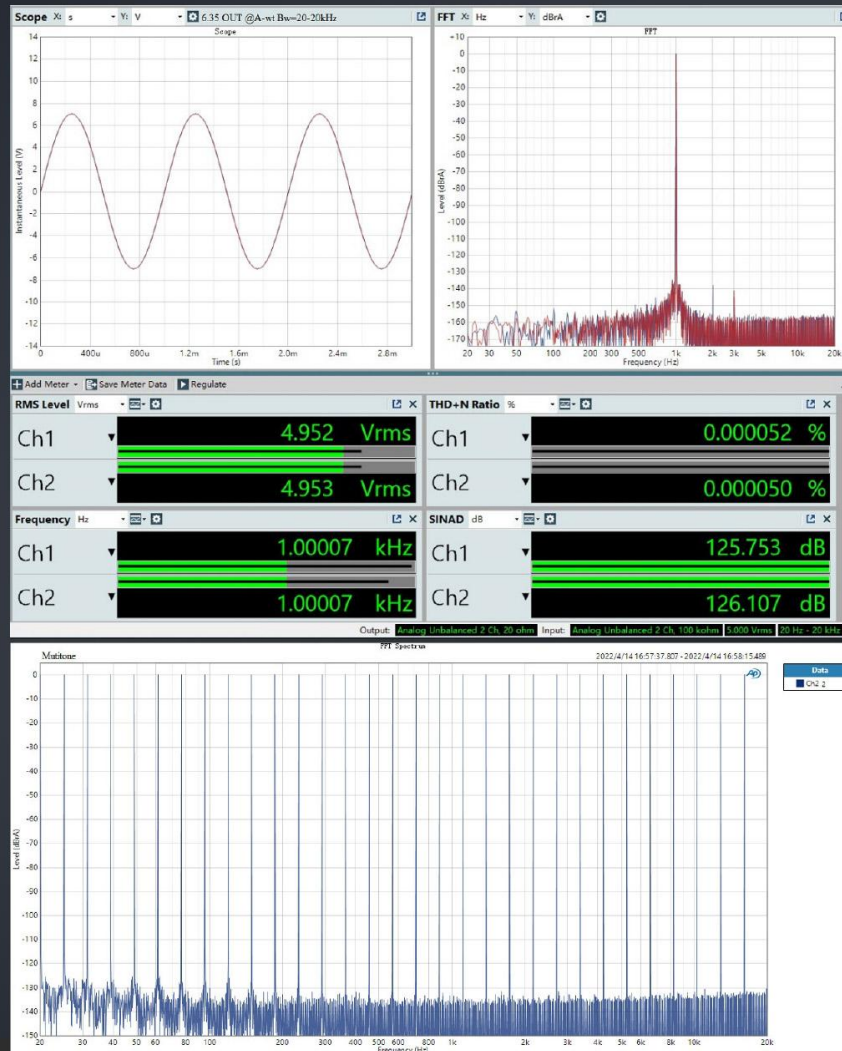
2000mW x2
@64Ω

560mW x2
@300Ω



Sound quality is never a problem

With the help of NFCA, L30 II easily reach the top of the industry, and it has almost perfect performance regardless of distortion, dynamic range, and multi-tone testing.



Compatible with almost all kinds of headphones

L30 II's output has high output voltage, high current, low output impedance, so no headphones that can't be dealt with.

High output voltage can easily drive high impedance headphones;
High output current allows low-sensitivity headphones to obtain enough power;

The low output impedance will not bring unnecessary effect on FR when driving low-impedance headphones.

Different headphones can be easily driven by the L30 II.



Output Voltage

37Vpp

Output Peak Current

1400mA

Output Impedance

<0.1Ω

Low distortion while outputting high power

The L30II can maintain ultra-low distortion output under high power load. Under 32 ohm load and 2500mW output, the THD+N is lower than 0.00008%; under 300 ohm load and 300mW output, the THD+N is lower than 0.00007%.



Three gain settings to suit different needs

L30 II has three gain options: -14dB, 0dB, 16.5dB. Improved gain settings can cover a wider range of needs to meet the needs of different headphones from low-sensitivity full-sized over-ears to high-sensitivity IEMs. With the help of extremely low noise 0.3uV, even IEMs will not hear any background noise.



E30 II is the best DAC for L30 II



Best combo for active speakers

We also recommend that L30II and E30II be used with active speakers. Connect the two outputs of L30II to headphones and active speakers. By switching the outputs of L30II, you can enjoy music on headphones and active speakers respectively.





1 Output switch

Switch to PRE output(RCA output) or HPA output(Headphone output), or turn off.

2 Gain switch

H / M / L respectively corresponds to 16.5dB / 0dB / -14dB

3 Power indicator

The light will be always on when the L30 II is turning on, and goes off when it is turning off, blinks to indicate unexpected output.

4 6.35mm headphone output jack

Suitable for headphones with 6.35mm jack

5 Volume knob

Used to adjust the volume. It is recommended to turn down the volume before playing music.

6 Right channel single-ended RCA input

7 Left channel single-ended RCA input

8 Right channel single-ended RCA output

9 Left channel single-ended RCA output

10 Power input

AC15V/1A 50Hz/60Hz



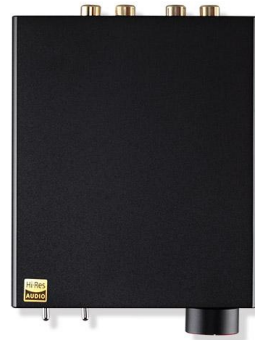
3.2cm



10.0cm

13.5cm

Contents list



1



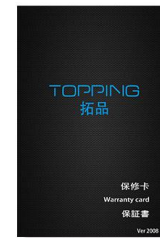
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3



4



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- | | | | |
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| 1 | L30 II | 4 | User manual |
| 2 | AC adapter | 5 | Warranty card |
| 3 | 6.35 mm to 3.5 mm adaptor | | |

Spec

L30 II Headphone Amplifier specifications	
THD+N @1kHz (A-wt)	<0.00006% @Output=500mW (32Ω)
	<0.00005% @Output=80mW (300Ω)
THD @20-20kHz 90kBW	<0.00008% @Output=500mW (32Ω)
	<0.00007% @Output=80mW (300Ω)
SNR @MAX OUT 1kHz (A-wt)	144dB
Dynamic Range @1kHz (A-wt)	144dB
Frequency Response	20Hz-40kHz (±0.05dB)
Output Level	14Vpp @G=L
	31Vpp @G=M
	37Vpp @G=H
AP measured noise level (A-wt)	<0.7uVrms @G=L
	<0.7uVrms @G=M
	<1.5uVrms @G=H
Actual noise level* (A-wt)	<0.3uVrms @G=L
	<0.3uVrms @G=M
	<1.4uVrms @G=H
Channel Crosstalk @1kHz	-92dB
Input sensitivity	25Vrms @G=L
	11.2Vrms @G=M
	2.0Vrms @G=H
Gain	-14.0dB @G=L
	0dB @G=M
	16.5dB @G=H
Output Impedance	< 0.1Ω
Output Power	3500mW x 2 @16Ω THD+N<0.1%
	2700mW x 2 @32Ω THD+N<0.1%
	2000mW x 2 @64Ω THD+N<0.1%
	560mW x 2 @300Ω THD+N<0.1%
Load Impedance	>8Ω

***Note:**

- 1.The above data is the result of the test in TOPPING laboratory under AC220V 50Hz condition.
- 2.The actual noise level is obtained by boosting the noise of L30 II by 40dB using a low noise amplifier in front of the

APx555B then dividing the measured noise by 100 times.

L30 II Pre-amplifier specifications	
THD+N @1kHz (A-wt)	<0.00006%
THD @20-20kHz 90KBW	<0.00007%
SNR @MAX OUT 1kHz (A-wt)	144dB
Dynamic Range @1kHz (A-wt)	144dB
Frequency Response	20Hz-40kHz (± 0.05 dB)
Output Level	14Vpp @G=L
	31Vpp @G=M
	37Vpp @G=H
AP measured noise level (A-wt)	<0.7uVrms @G=L
	<0.7uVrms @G=M
	<1.5uVrms @G=H
Actual noise level* (A-wt)	<0.3uVrms @G=L
	<0.3uVrms @G=M
	<1.4uVrms @G=H
Channel Crosstalk @1kHz	-92dB
Input sensitivity	25Vrms @G=L
	11.2Vrms @G=M
	2.0Vrms @G=H
Gain	-14.0dB @G=L
	0dB @G=M
	16.5dB @G=H
Output Impedance	20 Ω

***Note:**

- 1.The above data is the result of the test in TOPPING laboratory under AC220V 50Hz condition.
- 2.The actual noise level is obtained by boosting the noise of L30 II by 40dB using a low noise amplifier in front of the

