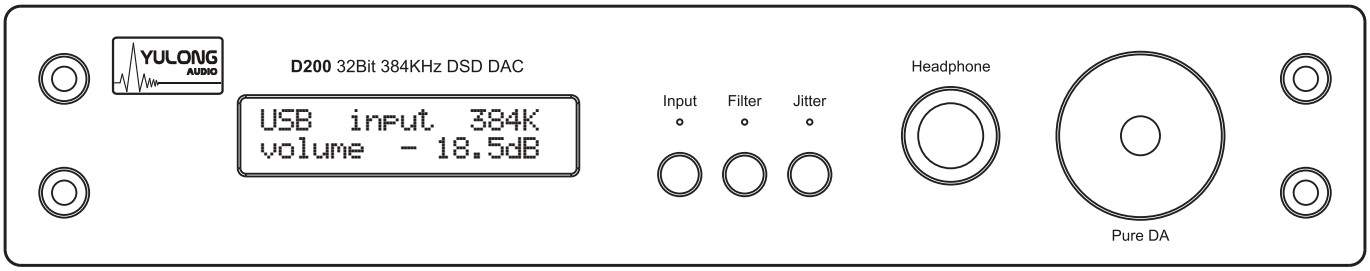
D200 32位数字---模拟解码器操作手册

User Manual Of *D200* DSD 32bit 384KHZ DAC



在使用本机之前，敬请详细阅读本手册，并妥善保管以便参考。

For a better experience with this product, please read this manual carefully before using it, and keep it for future reference.

http://www.yulongaudio.com

D200说明书尺寸：210*140mm封面

Thank you for choosing Yu Long D200 DAC and headphone amplifier. We believe this product can bring you a whole new experience in the world of music.

This ultra high performance to cost ration, 32bit 384KHZ DSD DAC is developed based on our highly acclaimed Sabre DA8. It comes with simplified operation, compact yet detailed construction, and a full set of interfaces: USB, TOSLINK, SPDIF and AES for digital inputs, and XLR, RCA plus 6.35mm headphone out for its application flexibility.

Further to its first class measurement performance, our sound optimizing team, which is formed by senior hifiers and professional music industry experts, has spent enough time to fine tune the sound. The result is a perfect balance between dynamic, resolution, and fullness. It is optimized for all kinds of musics.

D200 utilized ESS9016 as its heart, accompanying OP275 as LPF, OPA1632*2 as buffer and preamp. Headphone output is high current class A design constructed with MJD243/253 transistor with a output short circuit protection. High quality power supply includes Canadian Plitron toroidal transformer and 10 ways independent regulations. All Components are decided by extensive listening test.

There is a unique digital shaping and buffer design to improve the digital signal quality. Furthermore, an ultra low phase noise oscillator combined with DPLL automatic frequency switch make a very reliable clock.

There is a jitter filter which is can be set on (for lower quality digital signals) or off (for high quality digital signals) to best fit your equipments.

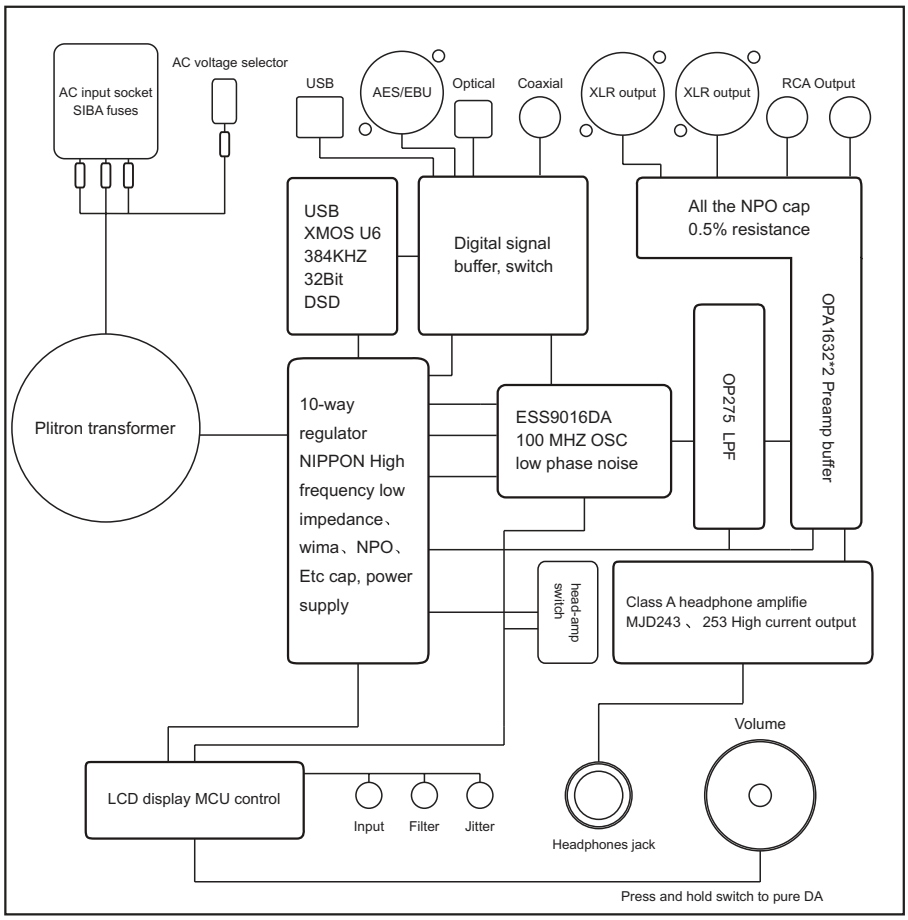
The LCD display, together with LED indication light make the operation easy and intuitive. The LCD dims 80% after 5 seconds idle. User settings are auto saved. And you can choose from 4 filter modes and 2 jitter eliminator modes to mix match a sound character you like! There is a 80 step volume control, which is a perfect simple set up for studio monitor users. You can turn the pure DAC mode on, which will bypass volume control and shut down headphone amplifier, for a ultimate DAC performance.

The USB solution is based on Xmos U, featured 3 low phase noise oscillators in asynchronous mode. It supports DSD and PCM 32bit 384KHz, and compatible with Mac OSX, Linux and Windows.

Specification

- THD+N less than 0.0005%, idle noise 2uV
- USB supports 32bit, 384KHz PCM signal
- DSD native / Dop support
- 4 different filter modes
- Jitter eliminator switch
- Filter mode, jitter control switch can bring different sound characters with different combinations
- High precision clock-auto-set DPLL
- 80 steps volume control
- Single ended/Balanced pre-amplifier output
- Balanced pre-amplifier output with buffer, which can be used as balanced headphone amplifier
- Work as pure DAC when headphone amplifier and pre-amplifier circuit turned off
- Class A single ended headphone amplifier
- LCD/LED display. Easy operation. 80% dim after 5 seconds idle
- Auto-save configuration
- Solid aluminum case. Button, volume knob and feet are made from aluminum blocks.
- 100V-240V global voltage.

The structure is as follows:



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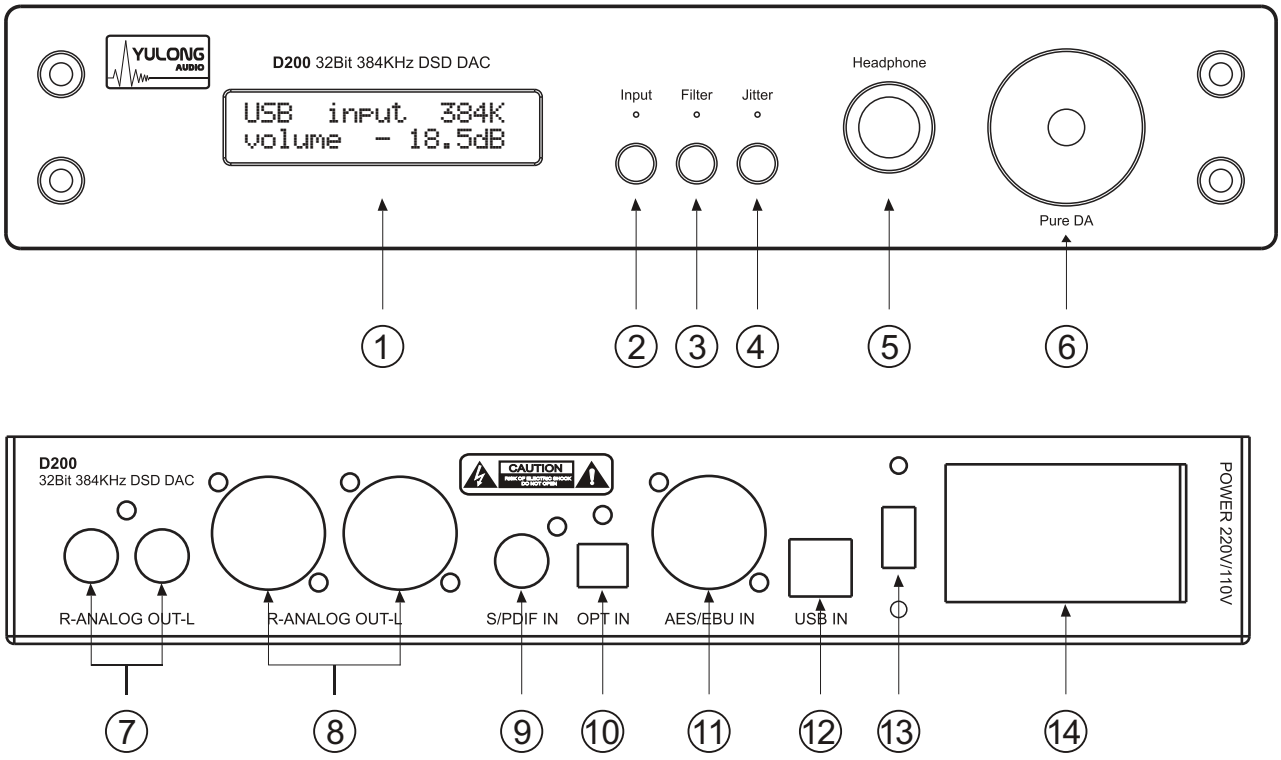
The Panel Figure



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①. LCD display shows the modes. Auto dim after 5 second idle.

②. Input selection. Cycles between Spdif, toslink, aes, usb when pushed. Sampling frequency will be displayed on LCD when signal is locked. DSD logo will be shown when a valid DSD signal is detected.

③. Digital filter mode selection. The default sharp mode has a flat response. When the LED lights up, it is in slow mode which has a slow roll off in high frequency (DSD mode：50KHz - 70KHz filter.)

④. Jitter eliminator selection. It is bypassed when LED lights up, and sound is tend to slower and softer. When it is on, the sound tend to more focus. However depends on the equipments, you may not hear a difference.

⑤. Headphone out.

!!! Warning: The headphone jack on D200 is VERY tight, please make sure the headphone plug is fully inserted. In case of not fully inserted, the left and right outputs are shorted and will damage the headphone amplifier! The short circuit can not prevent this situation!!! We don't honor warranty to damage under this situation!!!!

!!! Warning: Please turn the volume to minimum before connecting or turning on equipments. It may sound dangerous loud!

Tips: When in pure DAC mode, the headphone amplifier is shut off - however you may still hear minor sounds from the headphone jack. It is normal.

⑥. Volume control, turn to change output level in 80 steps. It controls all outputs. Press the volume knob for 1 second to change D200 into pure DAC mode. Volume control and headphone amplifier are bypassed in pure DAC mode.

!!! Warning: D200 outputs a full scale signal in pure DAC mode. You must have a volume control in your system, otherwise the output level could be dangerous high, and might permanently damage your equipment and hearing!!!! You may also face angry family members, neighbors and pets! We don't response to any damage under such condition.

⑦. Unbalanced analogue audio output

⑧. Balanced analogue audio output. It has an extremely low output impedance, and you can use it as a balanced headphone amplifier. Volume control must be turned on for such application, otherwise the headphone and your hearing may be permanently damaged. We don't response for such damage.

!!! **Warning: Do not use regular XLR-RCA conversion adapters or cables , which normally short pin 3 to ground. You will damage the output stage!!! We don't response for such damage. Make sure pin 3 is disconnected if you want to use the balanced output as unbalanced.**

⑨. Spdif coaxial digital input

⑩. Spdif toslink input

Tips: Some quality equipments have a poor digital signal quality, and might cause malfunctioning under higher bitrates.

⑪. AES/EBU digital input

⑫. USB input. You must install driver for Windows system, and please download from **http://yulongaudio.com/en/down.asp**. You must make sure the playback software can self adopt digital file sample rate. ASIO and WASAPI is preferred. Play back software must support DSD mode doe DSD and SACD playback. When valid DSD signal is detected, the LCD will display input USB DSD. ASIO device name is: XMOS USB Audio.

⑬. Voltage selection.

!!! **Warning: Please make sure you choose correct voltage before connecting to mains power. Otherwise you may permanently damage D200 and your equipment. We don't response for such damage.**

⑭. Mains power socket, power switch and fuse box. We include a back up fuse in the fuse cpmpartment.

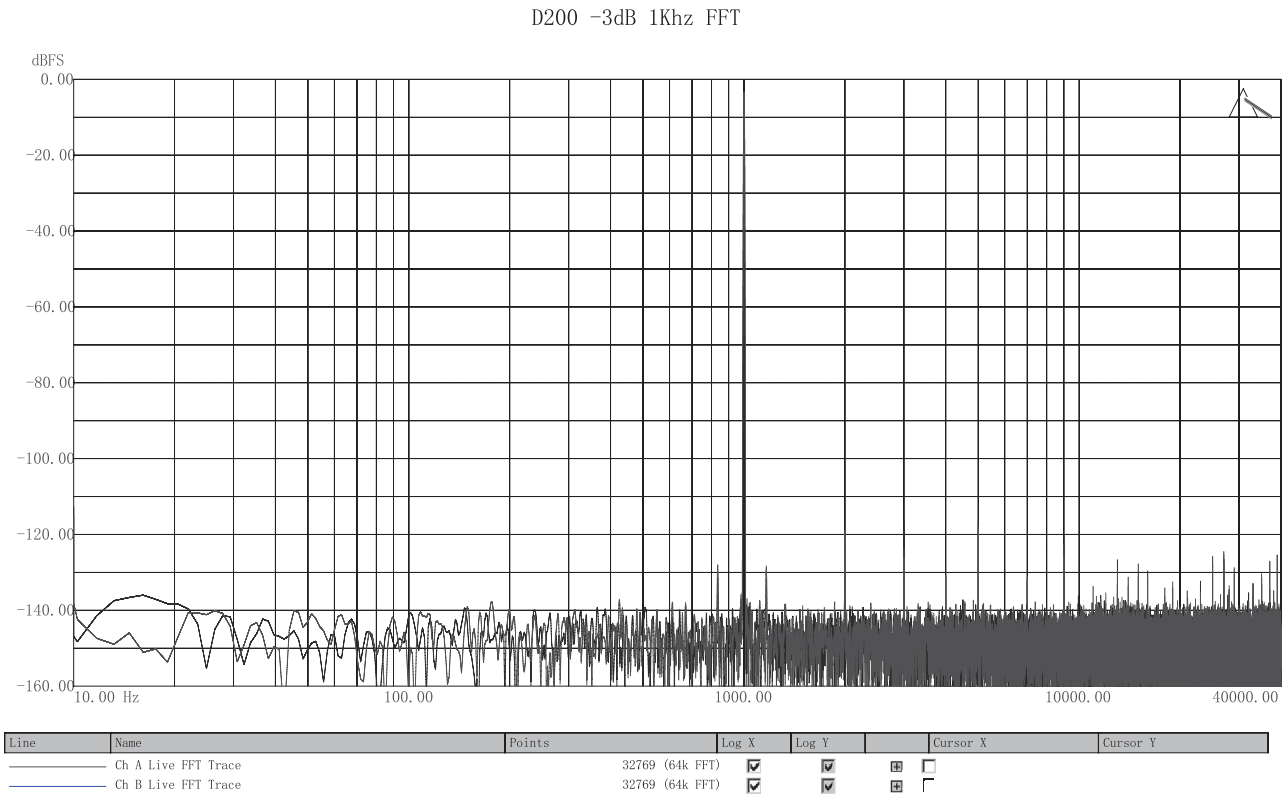
Suggestion：

* Before using D200, it's better to warm up for at least 15 minutes. Please make sure to allow the air to circulate and to use the headphone with class A to amplify, it is normal that there is a little warm on the surface of D200.
* Please use high quality USB cable. Don't connect D200 via a USB hub, or extension cable (for example most USB ports in the front of tower case).
* The AC power supply need to be properly grounded, otherwise it is not safe to use, at the same time the noise produced by the the other electrical equipments will be passed to D200 from power cord, it is also possible that the loop noise will be produced among the grounding wire, PC, USB and D200.

Technical Specifications

- USB Input format support: PCM 16-32bit，44.1Khz、48Khz、88.2Khz、96Khz、176.4Khz、192Khz、352.8Khz、384Khz 、DSD64, DSD128
- Operating system support: Mac OSX, Linux, KS/Wasapi/WDM/ASIO Drivers for MS Windows from XP to Win8 32-64bit.
- Inputs: Optical, Coaxial, AES/EBU: 16-24Bit, 44.1-192KHZ
- SNR: -125dB.
- Dynamic Range: >122dB.
- THD+N: 0.0005% (This is our test equipment's lowest resolution)
- Frequency Response: 20-30KHz-0.2dB
- Crosstalk -130dB
- Full Balanced Output level: 4.2V
- Headphone amplifier output power: 600Ω：70mw 300Ω：150mw 150Ω：280mw 32Ω：1W
- Power consumption: <30W.
- Size: 250*180*45mm.
- Net Weight: 1.6Kg

dScope Series III digital audio analyzer test chart：



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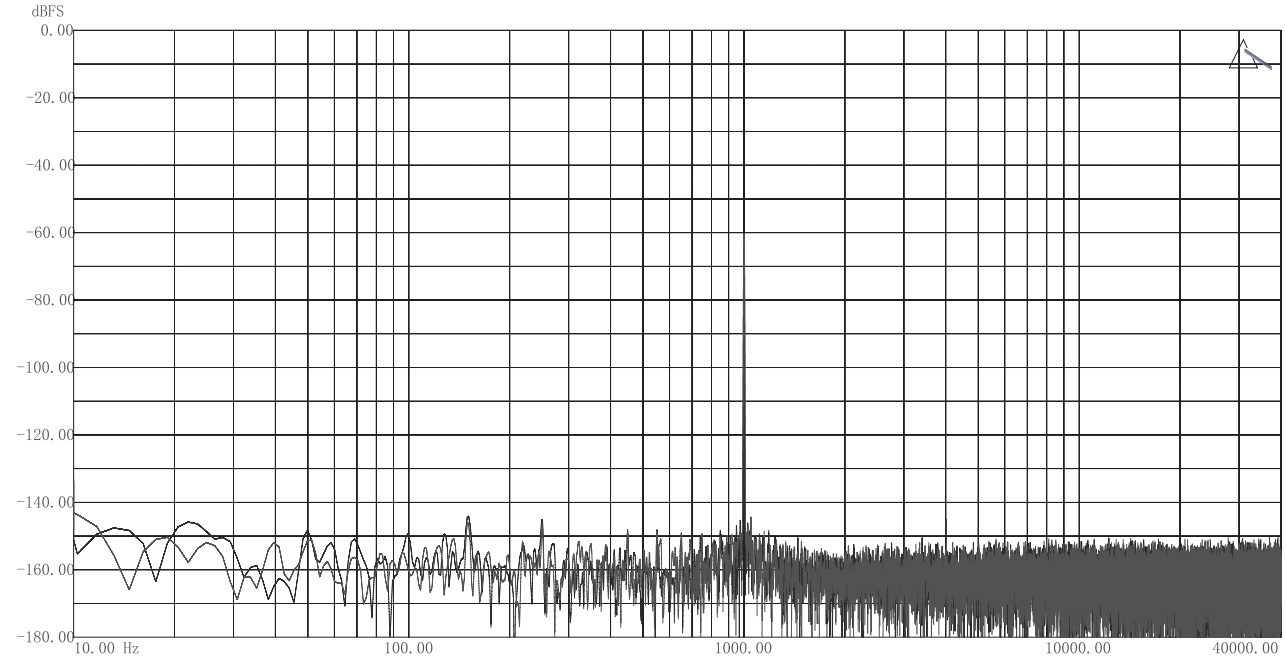
D200 -60dB 1Khz FFT



Line	Name	Points	Log X	Log Y		Cursor X	Cursor Y
	Ch A Live FFT Trace	32769 (64k FFT)	☑	☑	⊞	☐	
	Ch B Live FFT Trace	32769 (64k FFT)	☑	☑	⊞	☐	

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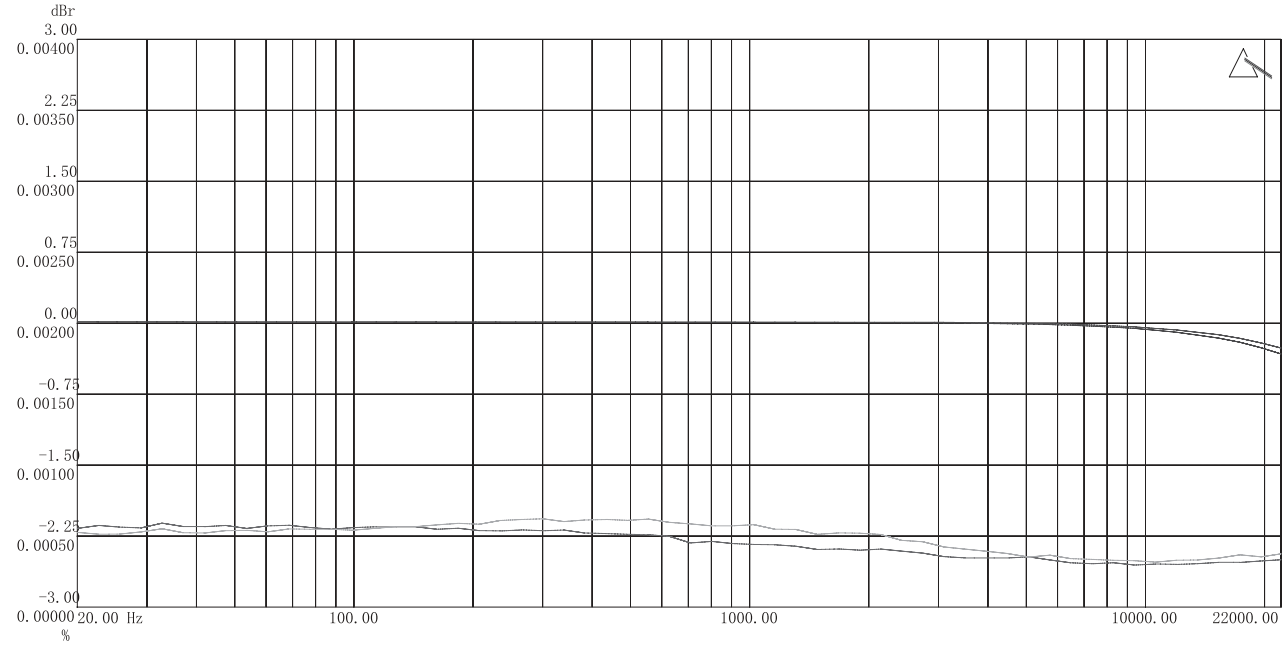
D200 THD+N Frequency response



Line	Name	Points	Log X	Log Y		Cursor X	Cursor Y
	Ch A Sweep of Ch A RMS ampl	61	☑	☑	⊞	☐	
	Ch A Sweep of CT Det : THD+N - relative : Ch A	61	☑	☐	⊞	☐	
	Ch B Sweep of Ch B RMS ampl	61	☑	☑	⊞	☐	
	Ch B Sweep of CT Det : THD+N - relative : Ch B	61	☑	☐	⊞	☐	

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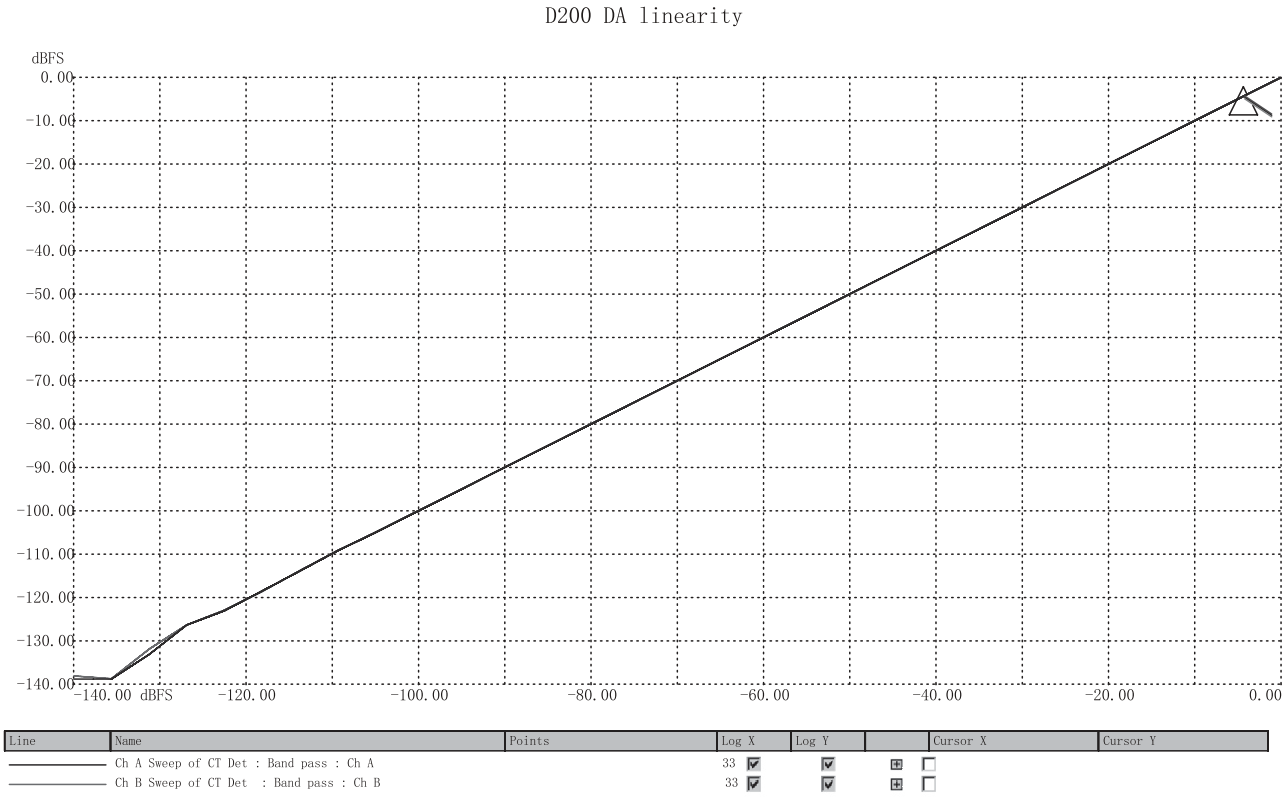

D200说明书尺寸：210*140mm P19

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