TOPPING

Centaurus

使用手册

User Manual

説明書

Model: TP536

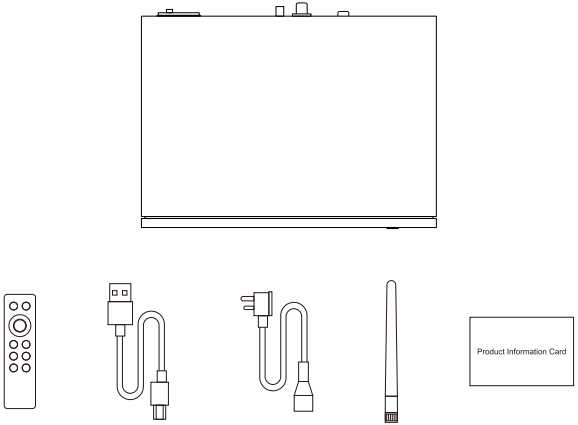
V1.1

Catalog

1. Contents list

Centaurus	x 1
Remote control	x 1
USB cable	x 1
AC cable	x 1
Bluetooth antenna	x 1
Product Information Card	x 1

Note: You can download the driver on https://www.toppingaudio.com/downloads.



2. Attribute

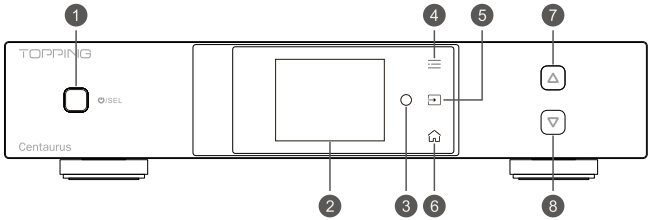
Measured	22.2cm x 16.0cm x 4.5cm
Weight	1.13Kg
Power input	100-240VAC 50Hz/60Hz
Signal input	USB/BT/OPT/IIS/AES/COAX
Line Out output	XLR/RCA
Other connectors	12V Trigger In（3.5mm jack） 12V Trigger Out（3.5mm jack）
Bluetooth range	>10M
Display	2inch LCD
Standby power consumption	<1.7W
Power consumption	<6.5W

3. Input range

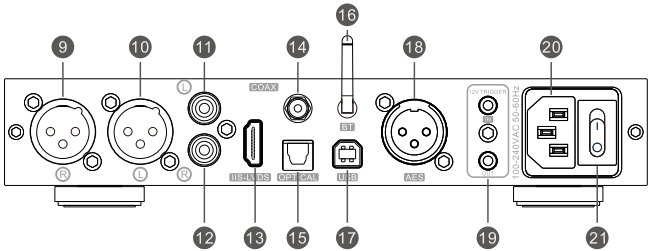
USB IN	PCM 44.1kHz-768kHz/16bit-32bit
	DSD DSD64-DSD512（Native）, DSD64-DSD256（DoP）
	PEQ 44.1kHz-192kHz/16bit-24bit
IIS IN	PCM 44.1kHz-768kHz/16bit-32bit
	DSD DSD64-DSD512（Native）, DSD64-DSD256（DoP）
COAX/OPT/AES IN	PCM 44.1kHz-192kHz/16bit-24bit
	DSD DSD64（DoP）
	PEQ 44.1kHz-192kHz/16bit-24bit
BT IN	AAC/SBC/APTX/APTX HD/APTX-Adaptive/LDAC
	PEQ 44.1kHz-96kHz/16bit-24bit

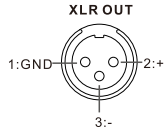
4. Parts and names

Front panel



Rear panel

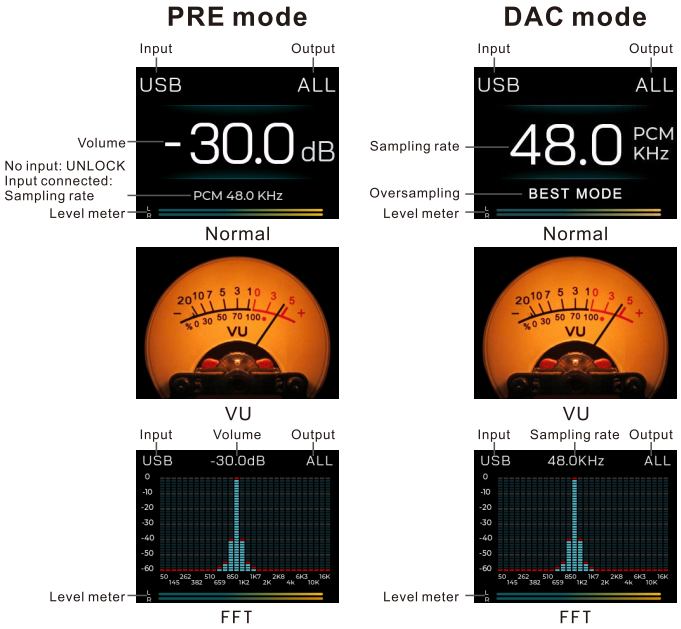




1. Power switch/SEL
   Short press to power on; Press and hold to enter standby mode; The function of short press at power on can be customized. Please set it at [Setup Menu-Advanced-Button].
2. Screen
3. Remote control receiver
4. Menu
   See "7. Setup Menu", below.
5. Input channel switching
6. Home page switching
7. Volume up
8. Volume down
9. Right channel balanced XLR output
10. Left channel balanced XLR output
11. Left channel single-ended RCA output
12. Right channel single-ended RCA output
13. IIS input
14. Coaxial SPDIF input
15. Optical SPDIF input
16. Bluetooth input
17. USB input
18. AES input
19. 12V Trigger IN/OUT（3.5mm jack）
    The 12V Trigger IN/OUT allows the Centaurus to be activated by other devices or to activate other devices via a 3.5mm AUX cable. The upstream device connected to Trigger In can control the power on/standby of Centaurus, and the downstream device connected to Trigger Out can be controlled by Centaurus.
    *Before using the Trigger IN function, you need to press the AUTO button on the remote to set the On/Off trigger mode to "12V".
20. Power input（AC 100-240V 50Hz/60Hz）
21. Power switch

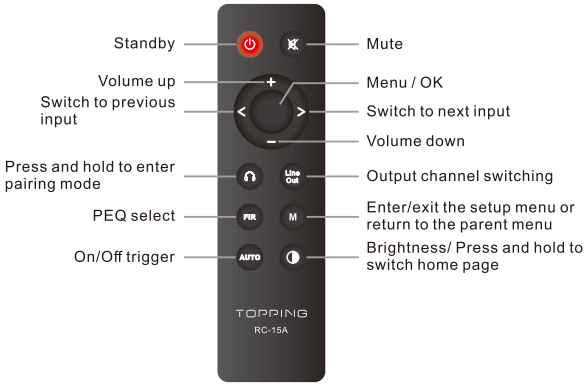
Display

There are three types of home page displays: Normal, VU and FFT, which can be switched by touching the button on the front panel or set in the menu [Setup Menu - Display - Home].The home page display in DAC mode and PRE mode will be slightly different. [Setup menu-Advanced-DAC mode]
PRE mode: Volume is adjustable.
DAC mode: Centaurus keeps the maximum volume output and the volume is not adjustable.



*VU Meter, FFT and Level meter monitor or reflect Centaurus's output level.（They won't be affected by the volume in PRE mode.）
Centaurus has 3 output modes: SE, BAL and ALL [Setup menu- Output select]. In SE output mode, the VU Meter, FFT and Level meter reflect RCA output level. In BAL/ALL mode, the output level of XLR is reflected.
*VU Meter, FFT and Level meter do not support DSD512.

Remote control



FIR
See "5. PEQ config" in the "Setup Menu", below.

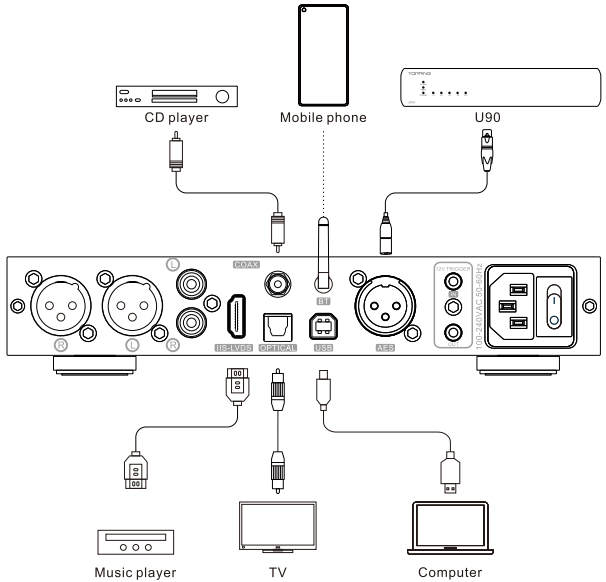
AUTO
See "4. On/Off trigger" in the "Setup Menu", below.

See "1-3 Brightness" in the "Setup Menu", below.

5. Connection

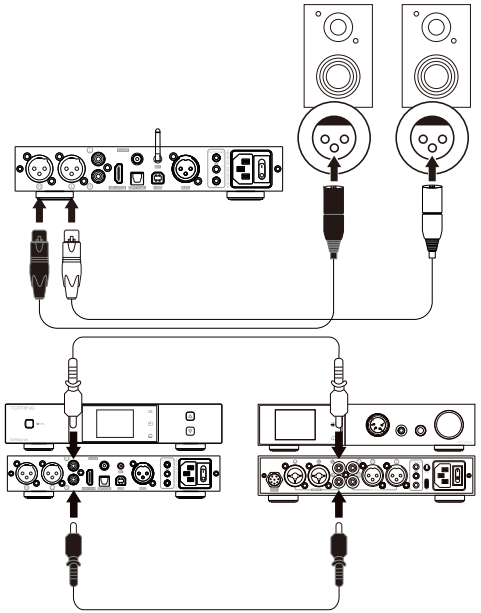
Connect to the input source

Support IIS, USB, Coaxial, Optical, Bluetooth, AES input.



Connect to amplifier or active speakers

Use XLR or RCA cables to connect to amplifiers or active speakers. In order to avoid damage to your devices, please turn off the amplifier or active speakers before you connect them to Centaurus.



6. Operation

Power on & off / standby operation

（1）**Power on & off**

Press the power switch on the rear panel to turn the Centaurus on or off.

（2）**Standby setting**

When it is working, press and hold the power button on the front panel to enter standby state and press to exit standby state when it is standby. Or you can use the remote control.

Volume setting

（1）**Mute and unmute**

Press the mute button on the remote control to mute Centaurus, press the mute button again or adjust the volume to exit mute state.

（2）**Volume adjusting**

You can press the △ or ▽ button on the front panel or press the + or − button on the remote control to adjust the volume. Note that long pressing the + or − button on the remote control will quickly change the volume, so please be careful in order to protect your hearing.

Note: Volume is fixed to 0dB in DAC mode and volume adjusting is invalid in this mode. [Setup menu-Advanced-DAC mode]

Input channel switching

Touch the ⇥ button on the front panel or press the < or > button on the remote control to switch the input circularly.

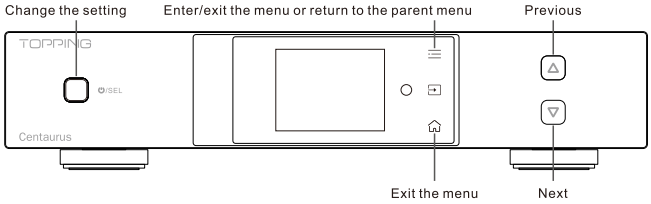
Output channel switching

Press the Line Out button on the remote control to switch the output in cycle. You could also switch the output channel by pressing the ⏻/SEL button on the front panel, but note that you need to set [Setup Menu-Advanced-Button] to "Output select"（Default）.

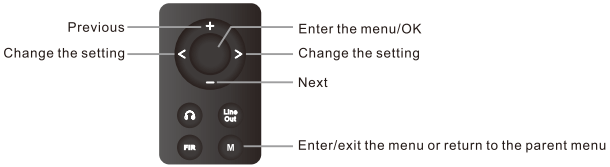
7. Setup Menu

Enter menu and change settings

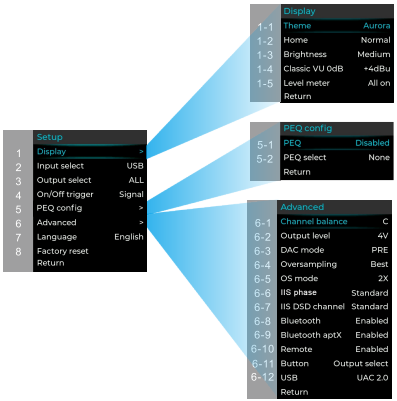
Buttons on front panel



The remote control



Menu Overview



1. Display

1-1 Theme

Multiple options available, default Aurora.

1-2 Home

Choose home page
Normal（Default）, VU, FFT

1-3 Brightness

Low, Medium（Default）, High, Auto
Auto has the same brightness as Medium. The difference is that when there is no operation after 30 seconds under Auto mode, the screen will be automatically turned off and only display the current input. You can press any button to light up the screen.

1-4 Classic VU 0dB

Set 0dB reference voltage for VU meter. For example, if set to +4dBu, when the pointer swings to 0dB, the current output level of the Centaurus is +4dBu.
+4dBu（Default）, +10dBu

1-5 LEVEL METER

All on（Default）, Normal page, FFT page, All off

2. Input select

USB（Default）, OPT, COAX, AES, BT, IIS

3. Output select

SE: only RCA output
BAL: only XLR output
ALL: Both RCA and XLR can have output (Default)

4. On/Off trigger

Signal: Input signal will trigger the device to turn on, but if the current input is not connected or input signal is invalid in 1 minute, it will automatically enter the standby state. Once having detected valid signal, it will automatically return to working state.（Default）
12V: 12V signal will trigger the device to turn on. When Centaurus's Trigger In is connected to another device's 12V Trigger Out, Centaurus's on/standby state can be controlled through this device. The Centaurus will remain in standby state until Trigger In detects the signal change from 0V to 12V. When changing back to 0V, the Centaurus will return to standby state.
Off: Disabled this function.

5. PEQ config

5-1 PEQ

Enabled（Default）, Disabled

PEQ Support Range	
USB IN	44.1kHz-192kHz/16bit-24bit
IIS IN	Unsupported
COAX/OPT/AES IN	44.1kHz-192kHz/16bit-24bit
BT IN	44.1kHz-96kHz/16bit-24bit

5-2 EQ select

NULL: No unit configuration（Default）
Unused: No configuration is selected
1, 2, 3, 4, and 5 correspond to the adjusted frequency response curves for TOPPING Tune's device configuration.
Note: On the TOPPING Tune, you can save local configuration of frequency response curves to the Centaurus, and the Centaurus can use this configuration offline. Exit TOPPING Tune to switch configurations on the device.

6. Advanced

6-1 Channel balance

Setting range: C（Balance）, L+0.5~9.5dB or R+0.5~9.5dB.（Default: C）
*When using the buttons on the front panel, press the ▢ ⏻/SEL button to enter the setting, press the △ or the ▽ button to set the value, and press the ▢ ⏻/SEL button again to exit the setting.

6-2 Output level

Maximum output level at 0dBFS
4V（Default）, 5V

6-3 DAC mode

PRE: Volume is adjustable.（Default）
DAC: Keep the maximum volume output and the volume is not adjustable.

6-4 Oversampling

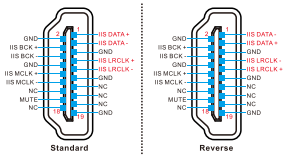
OS: Oversampling is on. Oversampling can reduce the quantization error, lower the noise, improve the SNR and dynamic range, and thus improve the sound quality. You could set the oversampling multiplier in the OS mode setting below.
NOS: Oversampling is off. Centaurus processes the input digital audio signal directly without any sample rate processing. This mode preserves the original characteristics of the audio signal.
Best: Centaurus automatically selects the appropriate oversampling rate based on the sampling rate of the source and the internal processing capacity of the decoder.（Default）
Note: Centaurus displays the input signal sample rate, not the sample rate after oversampling

6-5 OS mode

Oversampling rate = base frequency of input signal sampling rate * multiplier
1X, 2X（Default）, 4X, 8X, 16X

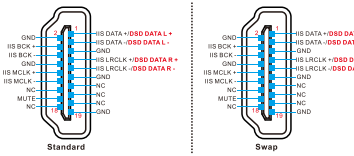
6-6 IIS phase

Standard（Default）, Reverse



6-7 IIS DSD channel

Standard（Default）, Swap



6-8 Bluetooth

Enabled（Default）, Disabled

6-9 Bluetooth aptX

Enabled（Default）, Disabled

The Centaurus supports multiple Bluetooth codecs. When set to OFF, the APTX-Adaptive will be disabled, allowing the use of other codecs（depending on the phone）.

6-10 Remote

Enabled（Default), Disabled

6-11 Button

Customize the function of short press ▢ SEL at power onOutput select（Default）, Home select, Brightness select, Dim the screen, Mute, Input select

6-12 USB

UAC2.0（Default), UAC1.0

7. Language

English、中文

8. Factory reset

Select factory reset will have a pop-up, select Yes/No（blue for selected）, then press the middle button on the remote or the front-panel ▢ SEL button to confirm.

8. Trouble shooting

If there are problems during use, please find the corresponding solutions through the following links.

https://www.toppingaudio.com/faq

Finding Method: Window OS enters the search by pressing Ctrl and F（Mac OS presses the command and F）. Then enter the device model to jump to FQA of the device.

If you still have problems or questions, please contact us: service@tpdz.net

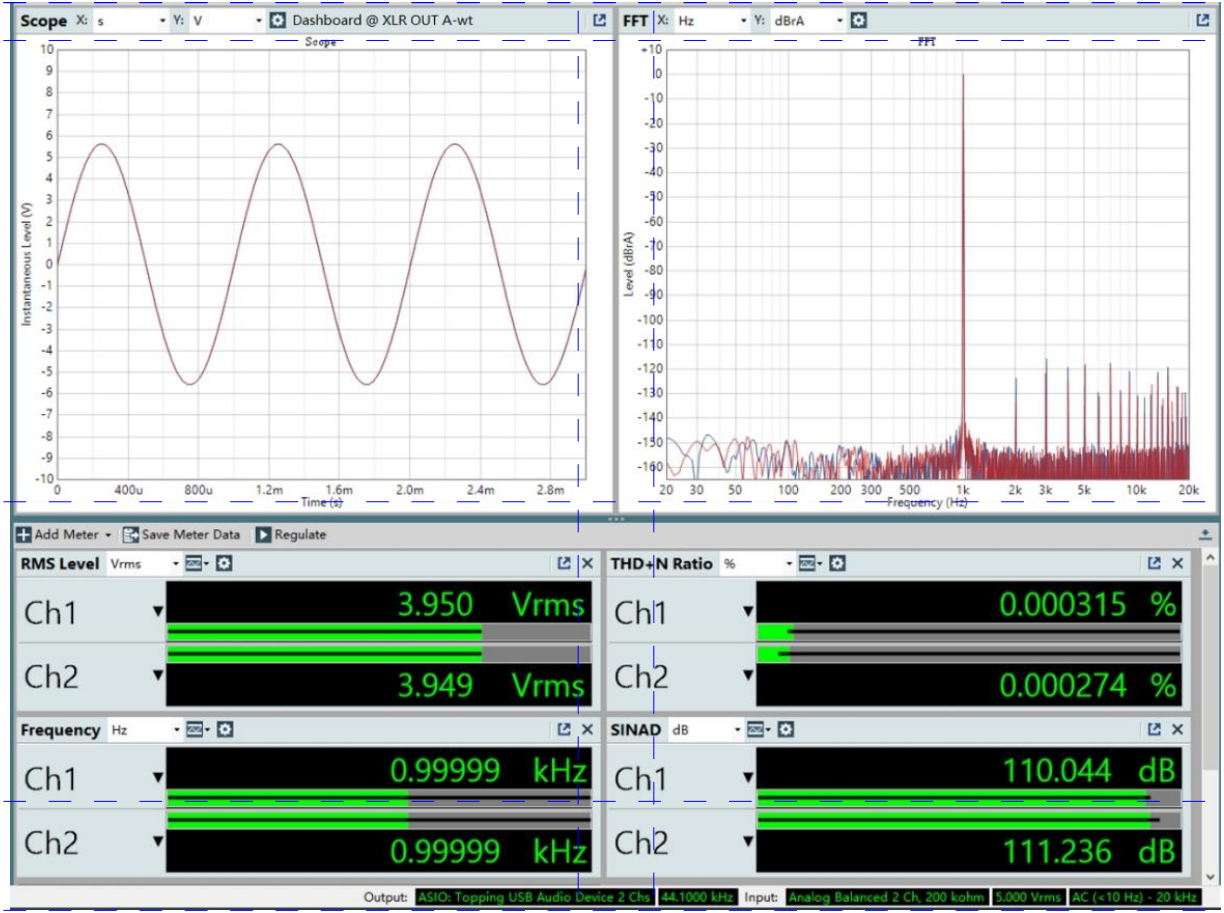
9. Precautions

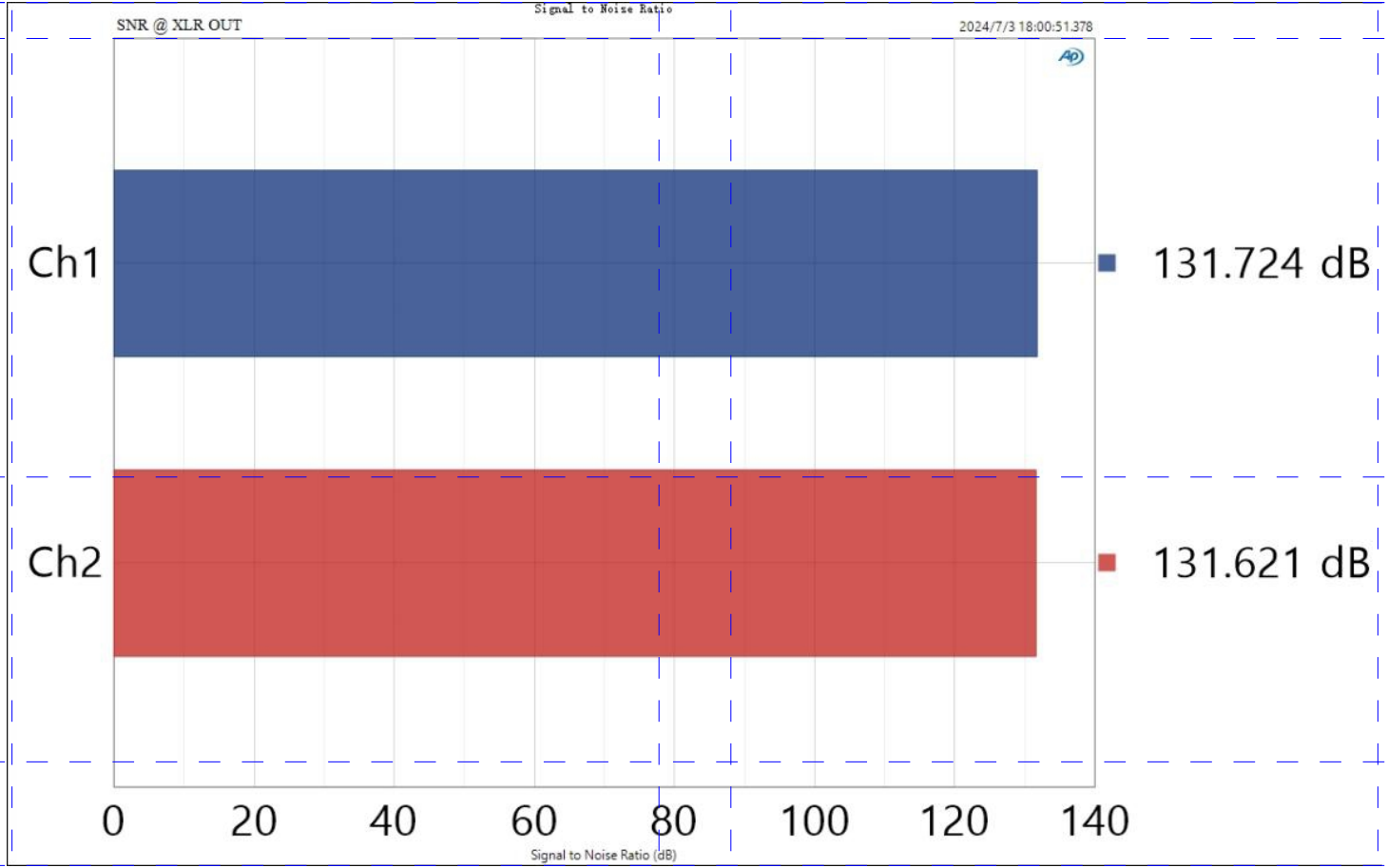
1. Do not keep the unit in a hot, humid environment or hit the unit strongly.
2. Opening the case instantly voids the warranty!
3. Indoor use only.
4. Topping accepts no liability for any loss or damage arising directly or indirectly from the failure of Centaurus.
5. For improvement purposes, specifications subject to changes without prior notice.

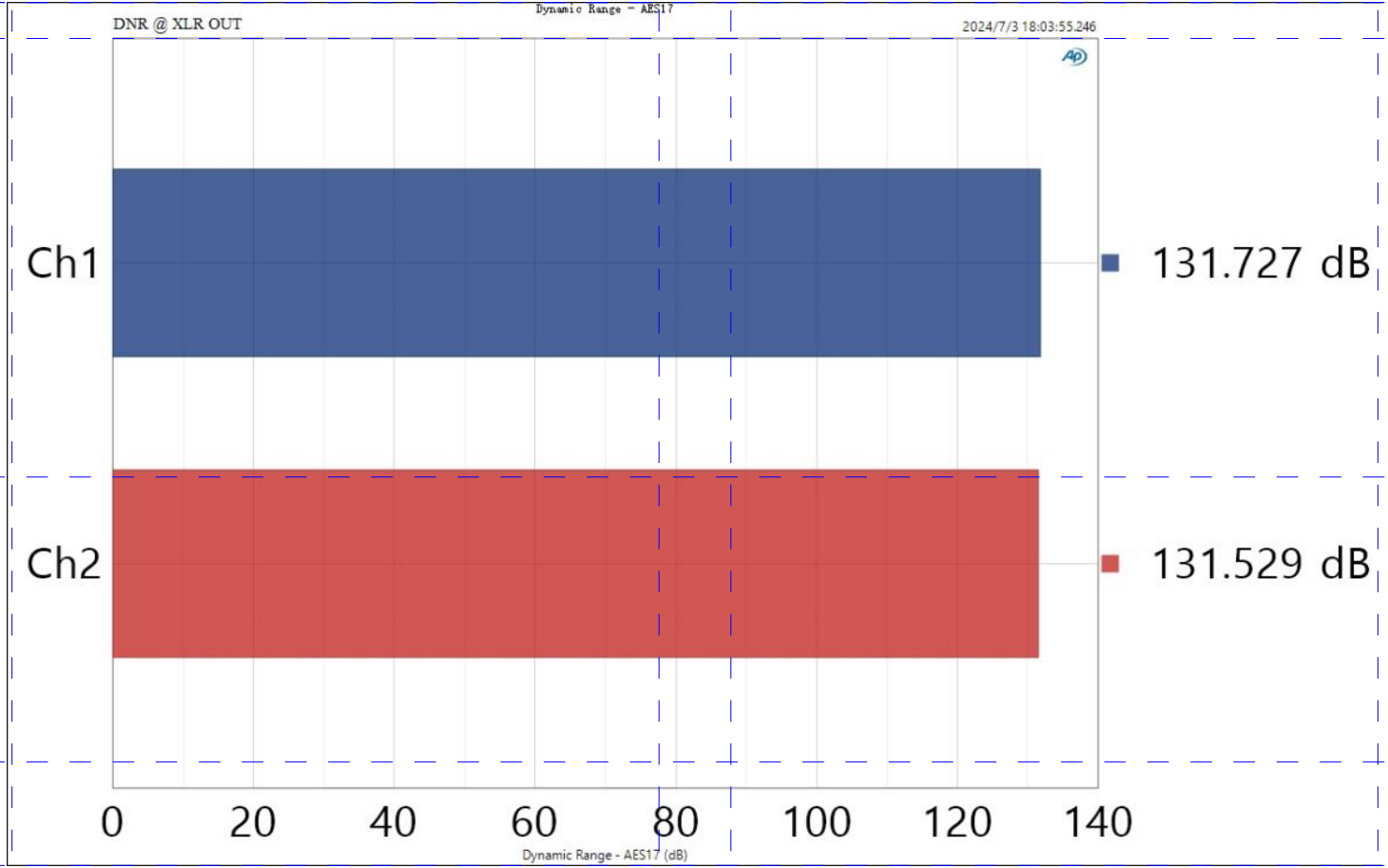
10. Specifications

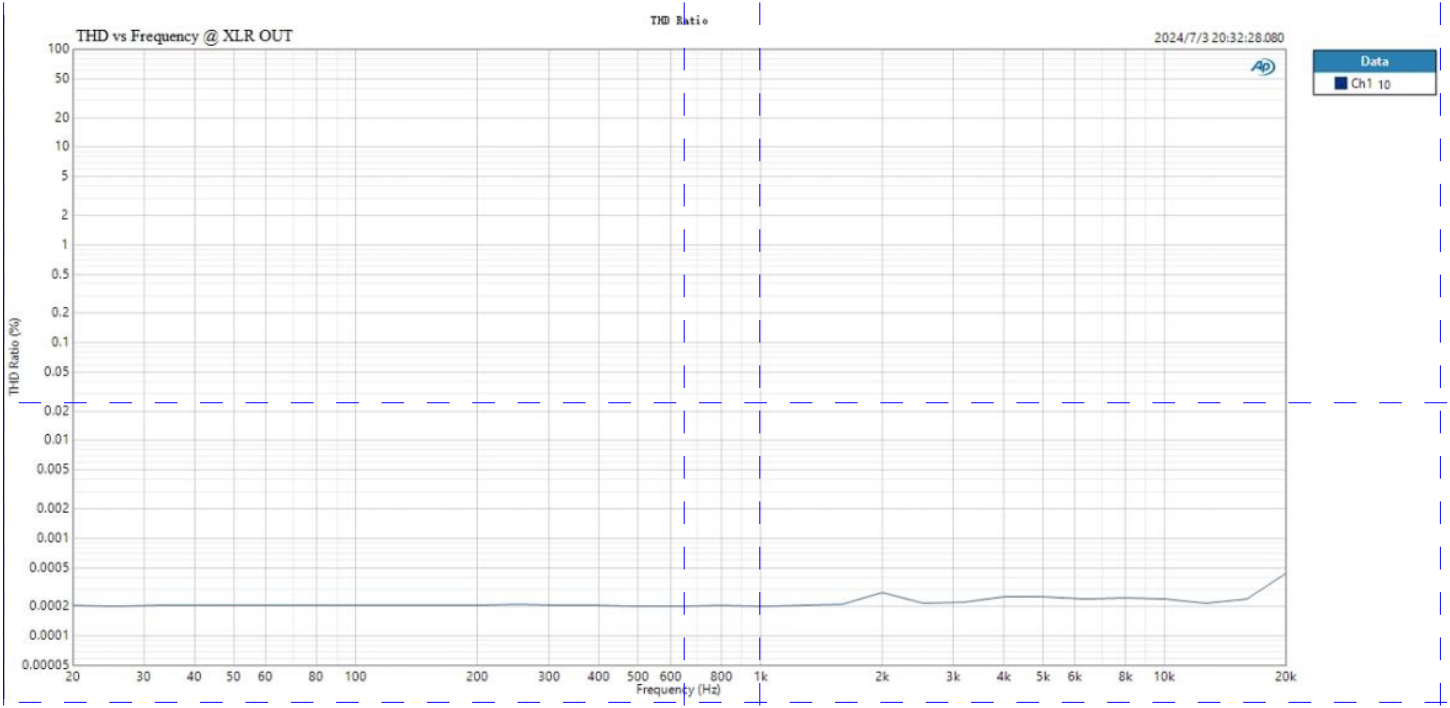
Centaurus DAC parameters（LineOut/USB In@96kHz）		
	RCA	XLR
THD+N @A-wt	<0.0005% @1kHz	<0.0005% @1kHz
THD @No-wt 90kBw	<0.0005% @20-20kHz	<0.0005% @20-20kHz
SNR @A-wt	126dB @1kHz	130dB @1kHz
Dynamic Range @A-wt	126dB @1kHz	130dB @1kHz
Frequency Response	20Hz-20kHz（±0.6dB）	20Hz-20kHz（±0.6dB）
	20Hz-40kHz（±2.2dB）	20Hz-40kHz（±2.2dB）
Output Level	2.1Vrms @0dBFS（4V Mode）	4.2Vrms @0dBFS（4V Mode）
	2.6Vrms @0dBFS（5V Mode）	5.2Vrms @0dBFS（5V Mode）
Noise @A-wt	<1.2uVrms	<1.4uVrms
Channel Crosstalk	-121dB @1kHz	-130dB @1kHz
Channel Balance	0.3 dB	0.3 dB
Output Impedance	50Ω	100Ω

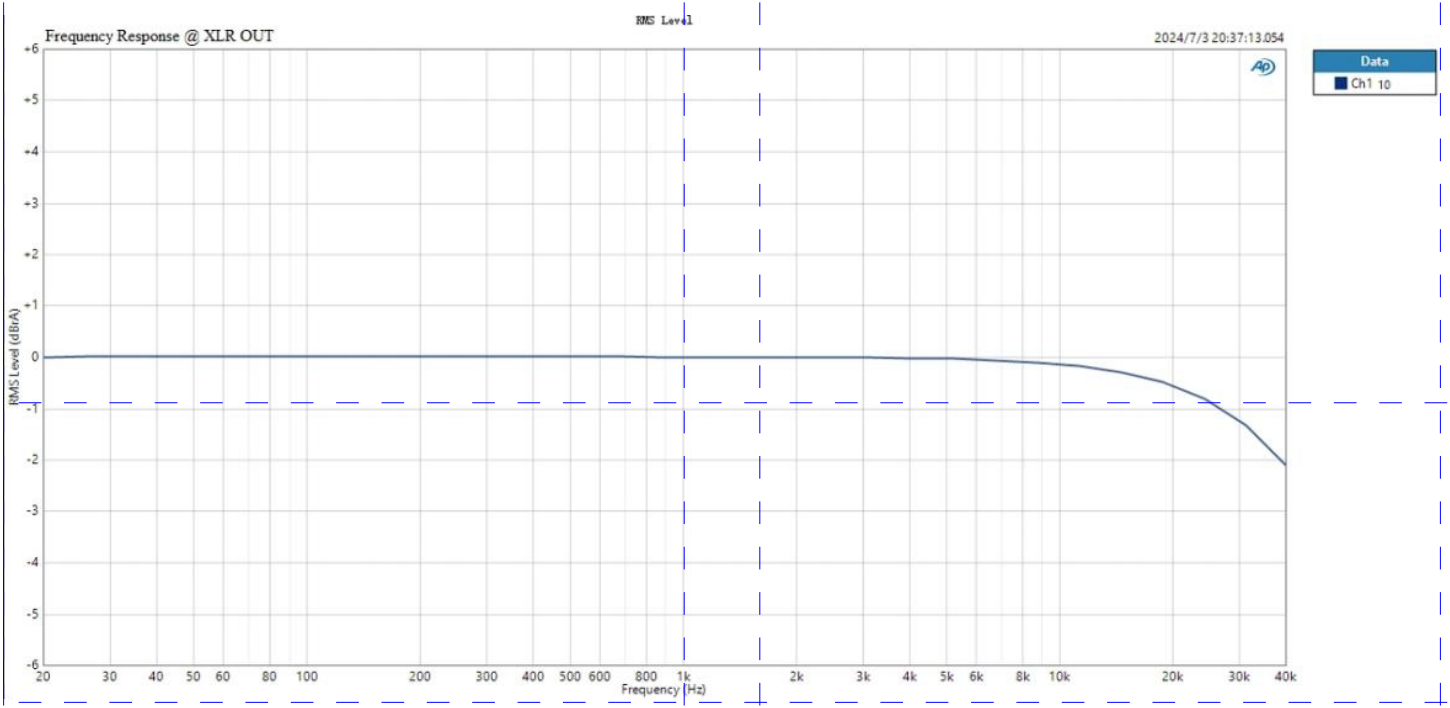
*Note: The above data is the result of the test in TOPPING laboratory with 4V output mode.

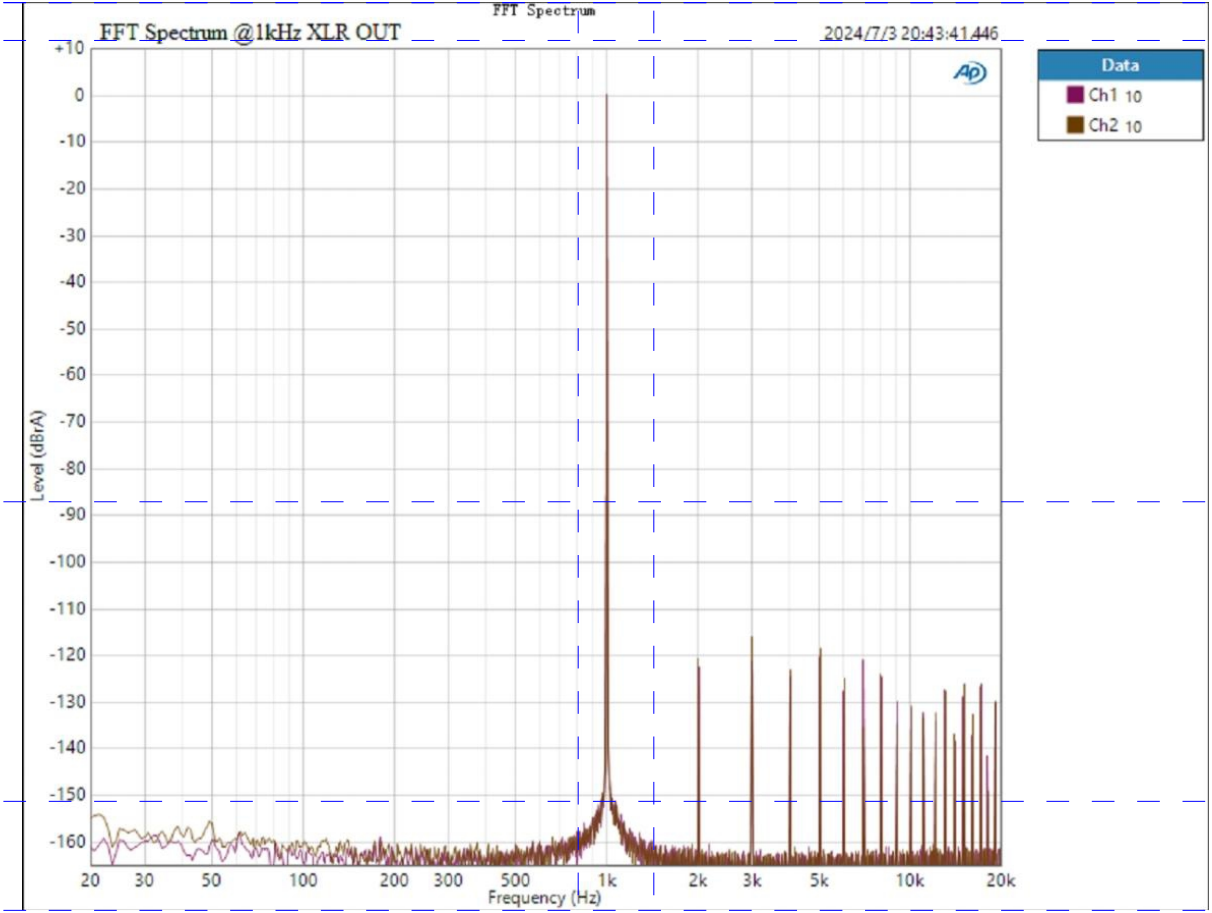

Scope X: s Y: V Dashboard @ XLR OUT A-wt
Scope
Instantaneous Level (V)
Time (s)
FFT X: Hz Y: dBrA
FFT
Level (dBrA)
Frequency (Hz)
Add Meter
Save Meter Data
Regulate
RMS Level Vrms
Ch1 3.950 Vrms
Ch2 3.949 Vrms
THD+N Ratio %
Ch1 0.000315 %
Ch2 0.000274 %
Frequency Hz
Ch1 0.99999 kHz
Ch2 0.99999 kHz
SINAD dB
Ch1 110.044 dB
Ch2 111.236 dB
Output: ASIO: Topping USB Audio Device 2 Chs 44.1000 kHz Input: Analog Balanced 2 Ch, 200 kohm 5.000 Vrms AC (<10 Hz) - 20 kHz

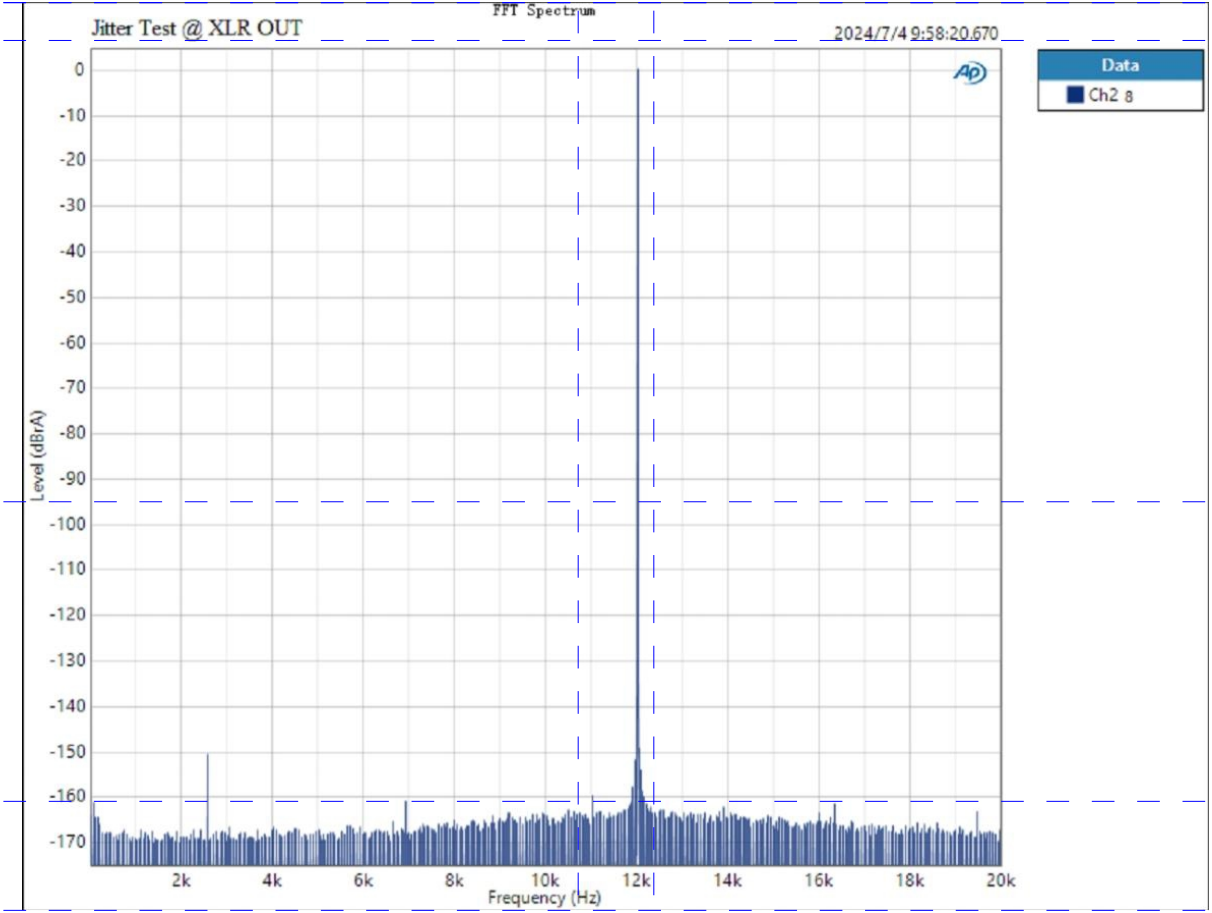

Signal to Noise Ratio
SNR @ XLR OUT
2024/7/3 18:00:51.378
Ch1
131.724 dB
Ch2
131.621 dB
0
20
40
60
80
100
120
140
Signal to Noise Ratio (dB)

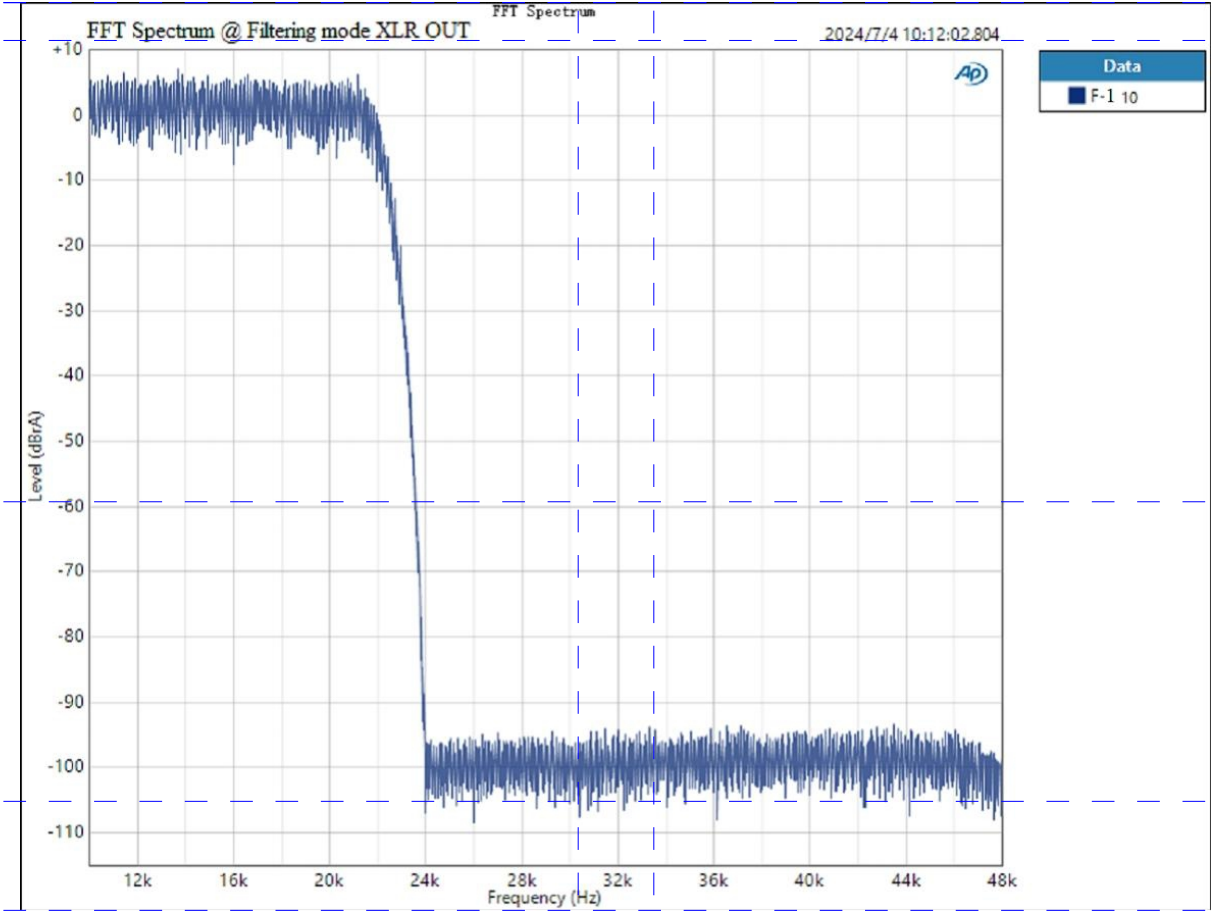

Dynamic Range - AES17
DNR @ XLR OUT
2024/7/3 18:03:55.246
Ch1
131.727 dB
Ch2
131.529 dB
0
20
40
60
80
100
120
140
Dynamic Range - AES17 (dB)

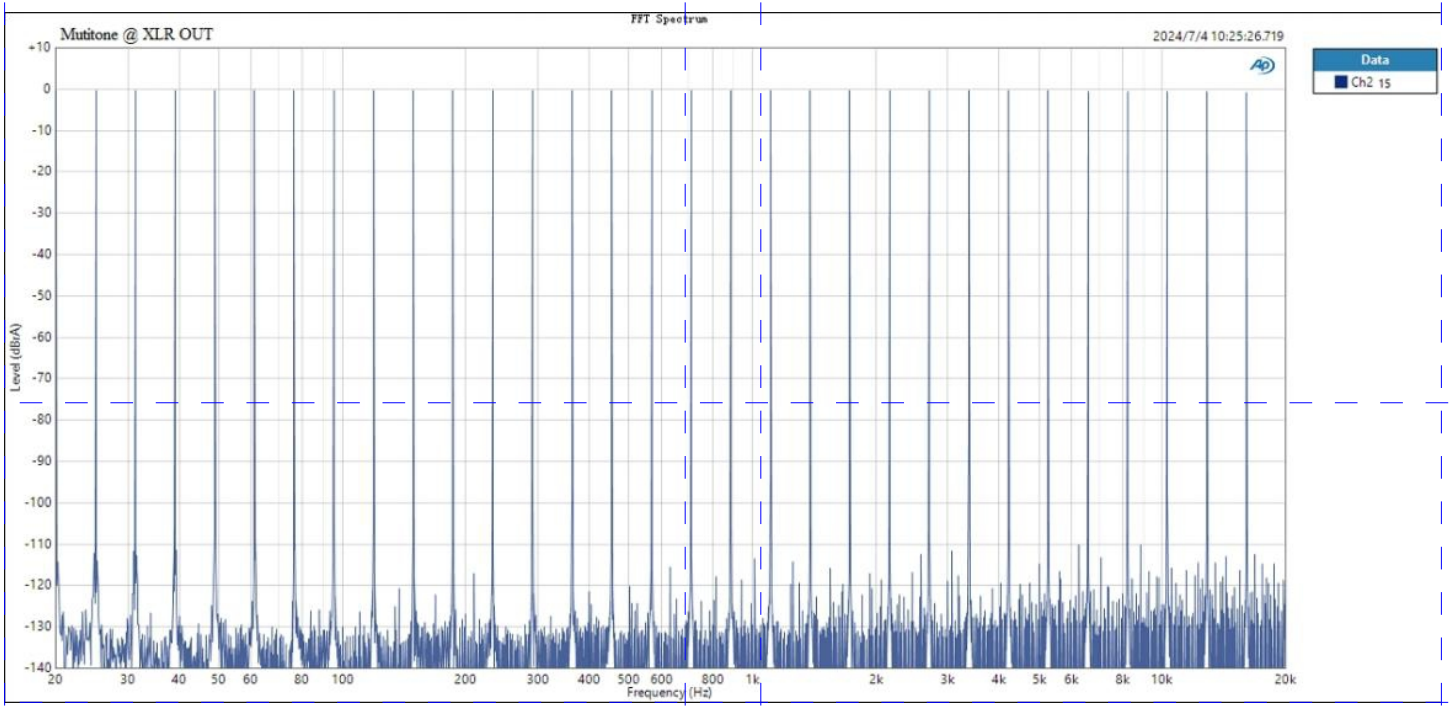

THD Ratio
THD vs Frequency @ XLR OUT
2024/7/3 20:32:28.080
Data
Ch1 10
THD Ratio (%)
100
50
20
10
5
2
1
0.5
0.2
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.0005
0.0002
0.0001
0.00005
20
30
40
50
60
80
100
200
300
400
500
600
800
1k
2k
3k
4k
5k
6k
8k
10k
20k
Frequency (Hz)


RMS Level
Frequency Response @ XLR OUT
2024/7/3 20:37:13.054
Data
Ch1 10
RMS Level (dBrA)
+6
+5
+4
+3
+2
+1
0
-1
-2
-3
-4
-5
-6
20
30
40
50
60
80
100
200
300
400
500
600
800
1k
2k
3k
4k
5k
6k
8k
10k
20k
30k
40k
Frequency (Hz)


FFT Spectrum
FFT Spectrum @1kHz XLR OUT
2024/7/3 20:43:41.446
Data
Ch1 10
Ch2 10
Level (dBrA)
+10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
-160
20
30
50
100
200
300
500
1k
2k
3k
5k
10k
20k
Frequency (Hz)


FFT Spectrum
Jitter Test @ XLR OUT
2024/7/4 9:58:20.670
Data
Ch2 8
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
-160
-170
Level (dBrA)
2k
4k
6k
8k
10k
12k
14k
16k
18k
20k
Frequency (Hz)


FFT Spectrum
FFT Spectrum @ Filtering mode XLR OUT
2024/7/4 10:12:02.804
Data
F-1 10
+10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
Level (dBrA)
12k
16k
20k
24k
28k
32k
36k
40k
44k
48k
Frequency (Hz)


FFT Spectrum
Mutitone @ XLR OUT
2024/7/4 10:25:26.719
Data
Ch2 15
+10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
Level (dBrA)
20
30
40
50
60
80
100
200
300
400
500
600
800
1k
2k
3k
4k
5k
6k
8k
10k
20k
Frequency (Hz)