TOPPING E50 High Performance DAC with Three Digital Input User Manual

TOPPING™

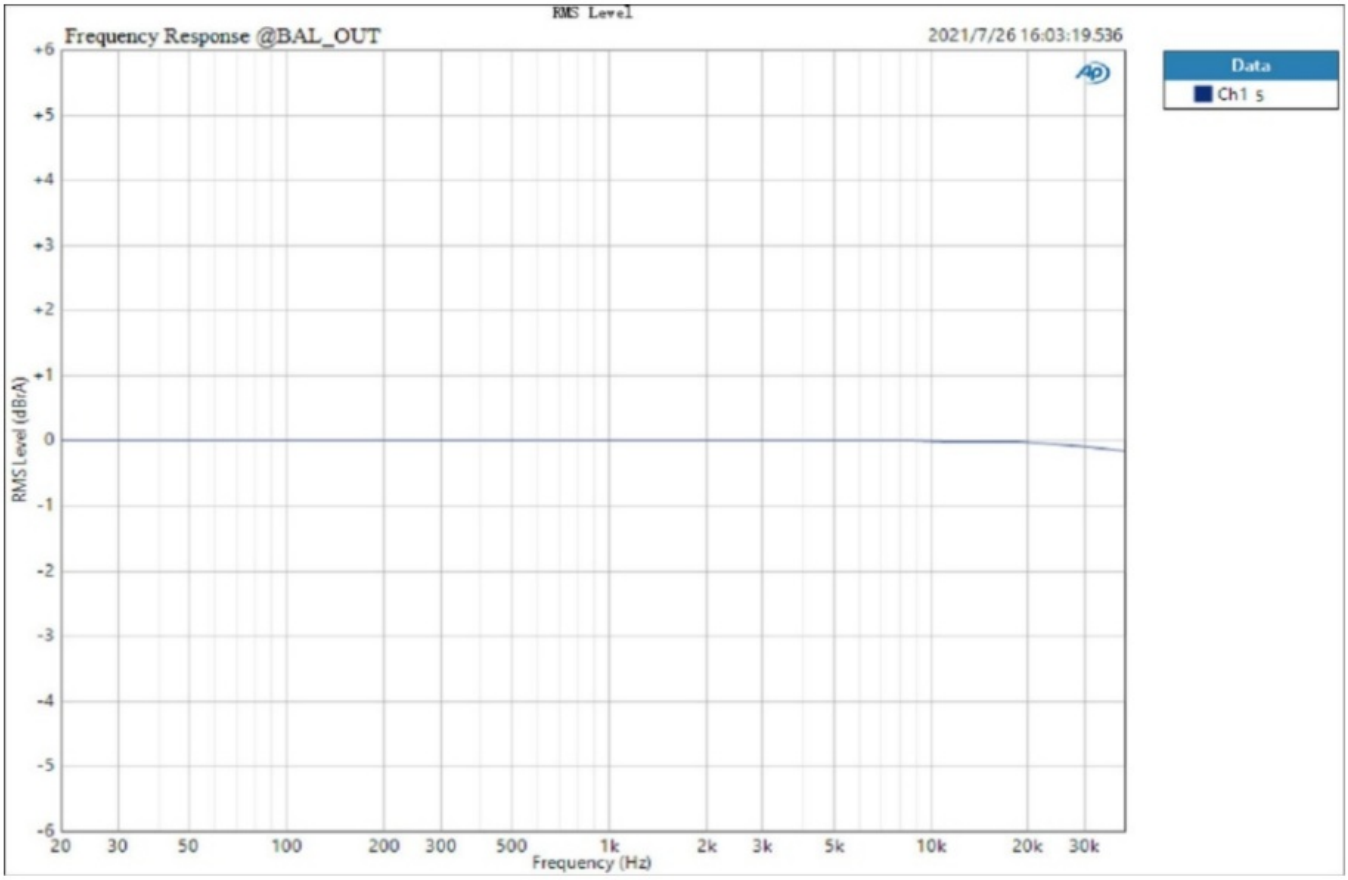
E5O
User manual

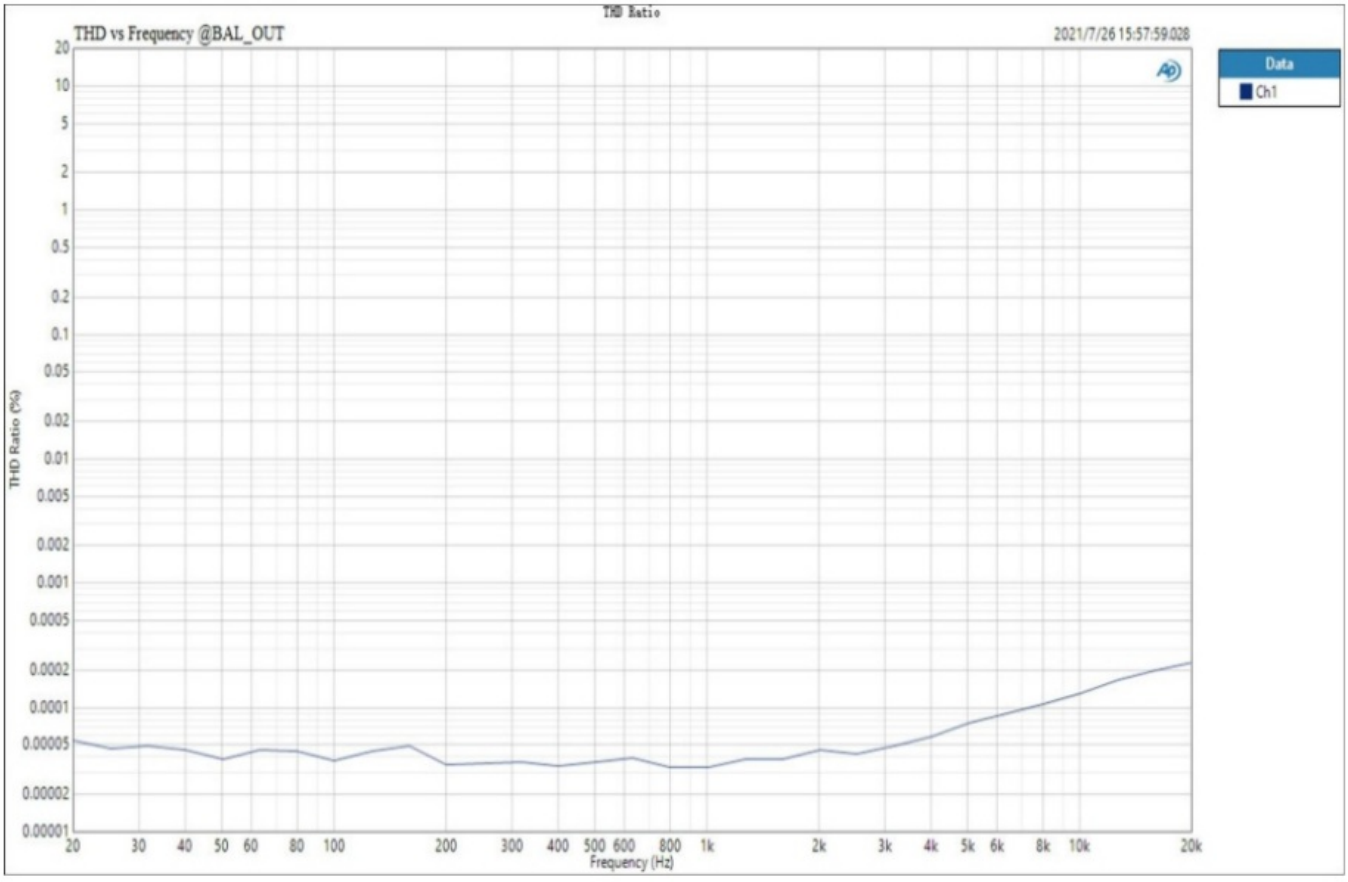
Contents

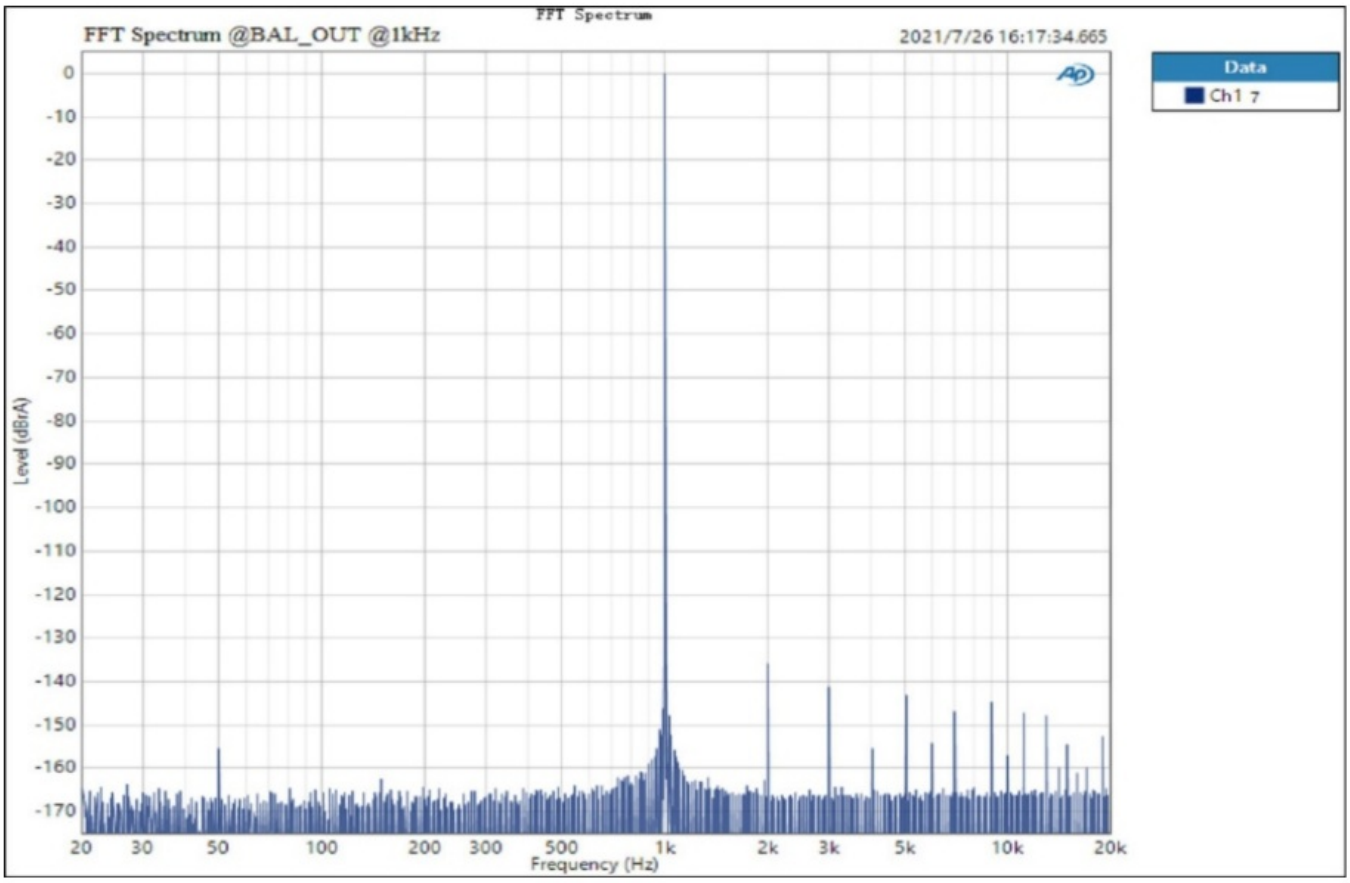
1 E50 High Performance DAC with Three Digital Input
2 Introduction to MQA
3 Contents list
4 Attribute
5 Front panel
6 Display
7 Rear panel
8 Remote control
9 Input range
10 Specifications
11 Operation
12 Setup Menu
13 Documents / Resources
14 Related Posts

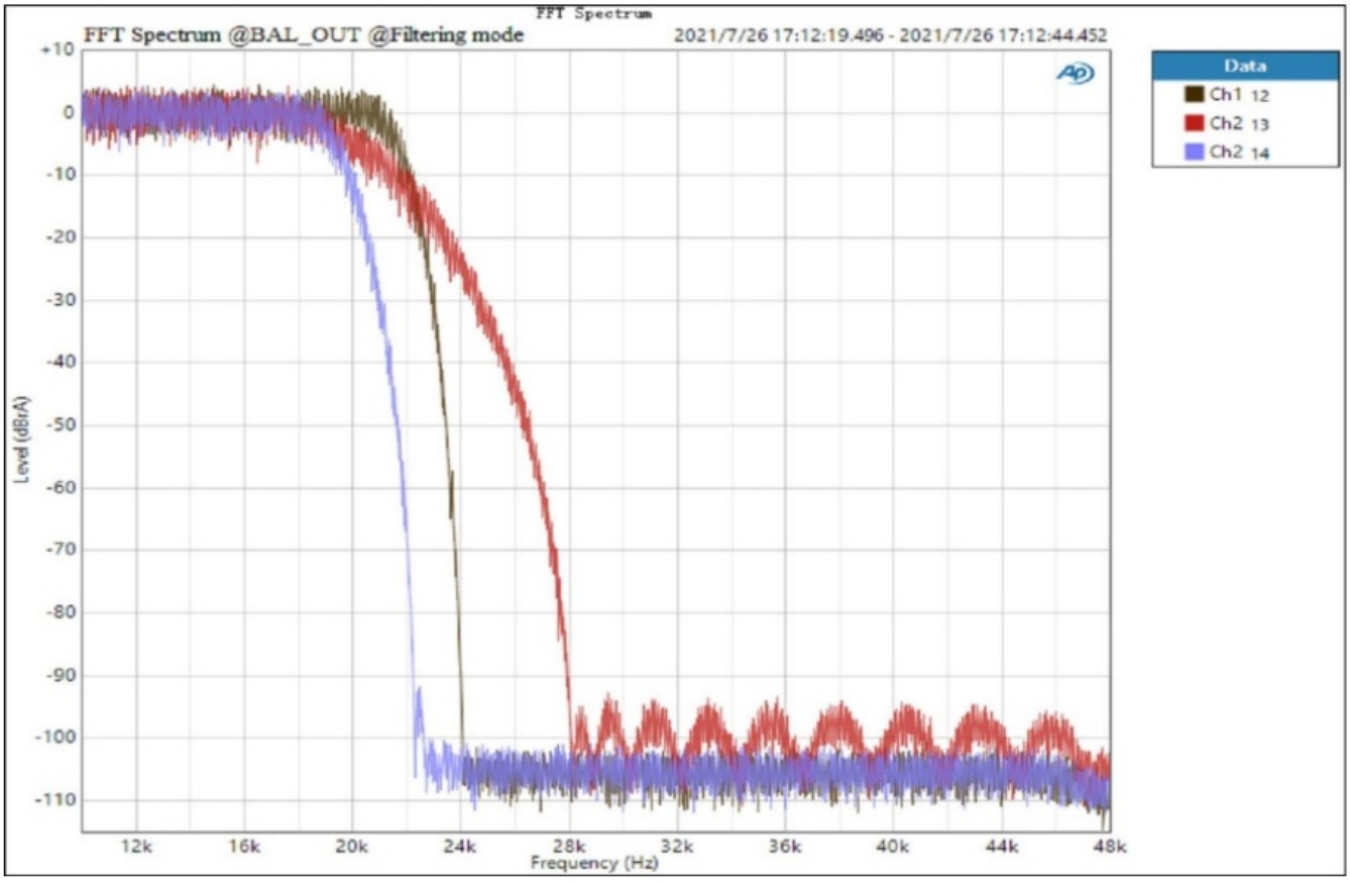
E50 High Performance DAC with Three Digital Input

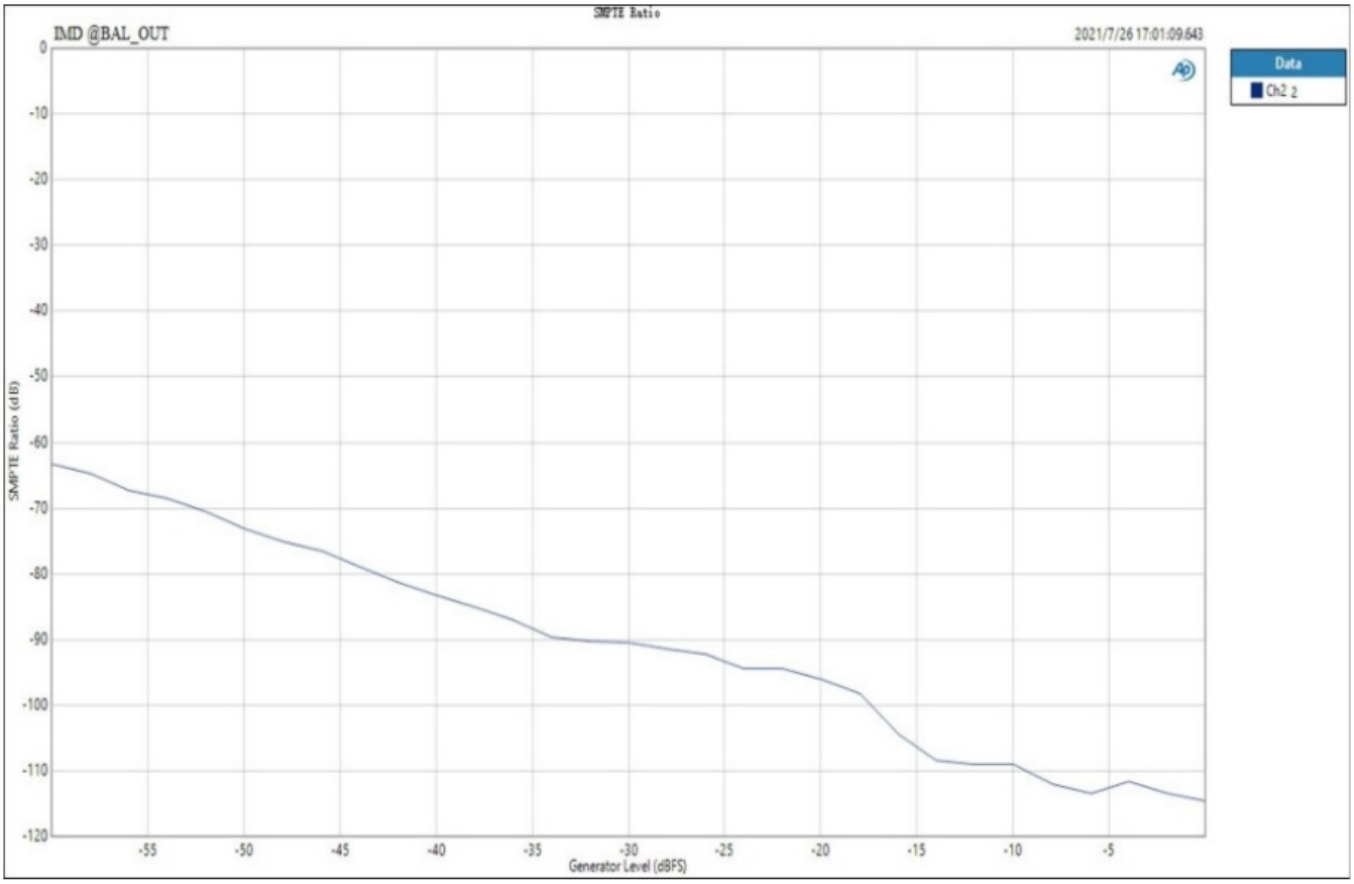
Thank you for purchasing E50!
The E50 s a high-performance DAC with three digital inputs, one RCA unbalanced output and one TRS balanced output. It can be used as a simple DAC or DAC + pre-amplifier, we hope it could bring you more fun at enjoying music. Now we recommend you read this manual so that you can use all the features of E50 correctly.

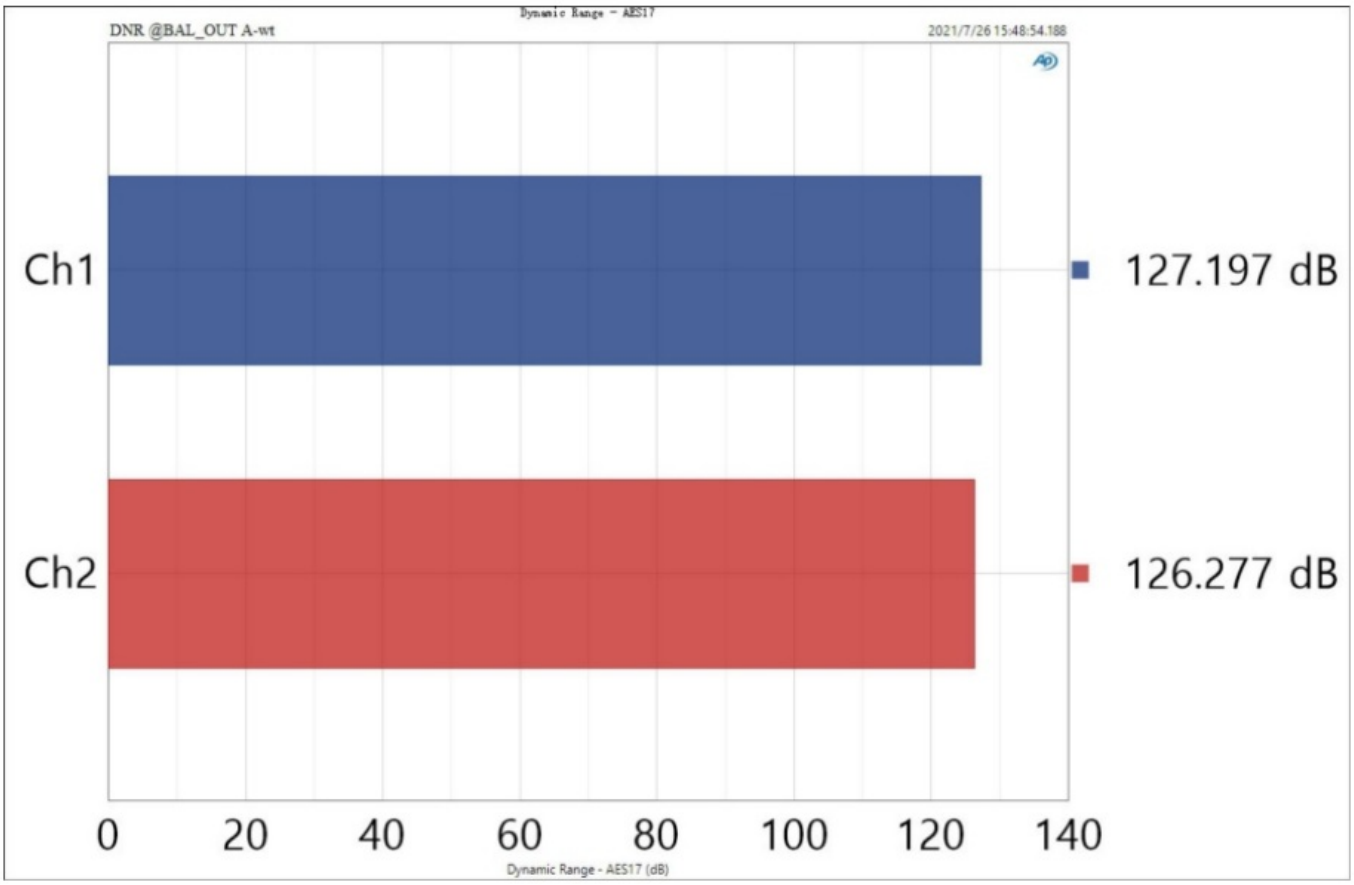

RMS Level
Frequency Response @BAL_OUT
2021/7/26 16:03:19.536
Data
Ch1 5
RMS Level (dBrA)
+6
+5
+4
+3
+2
+1
0
-1
-2
-3
-4
-5
-6
20 30 50 100 200 300 500 1k 2k 3k 5k 10k 20k 30k
Frequency (Hz)

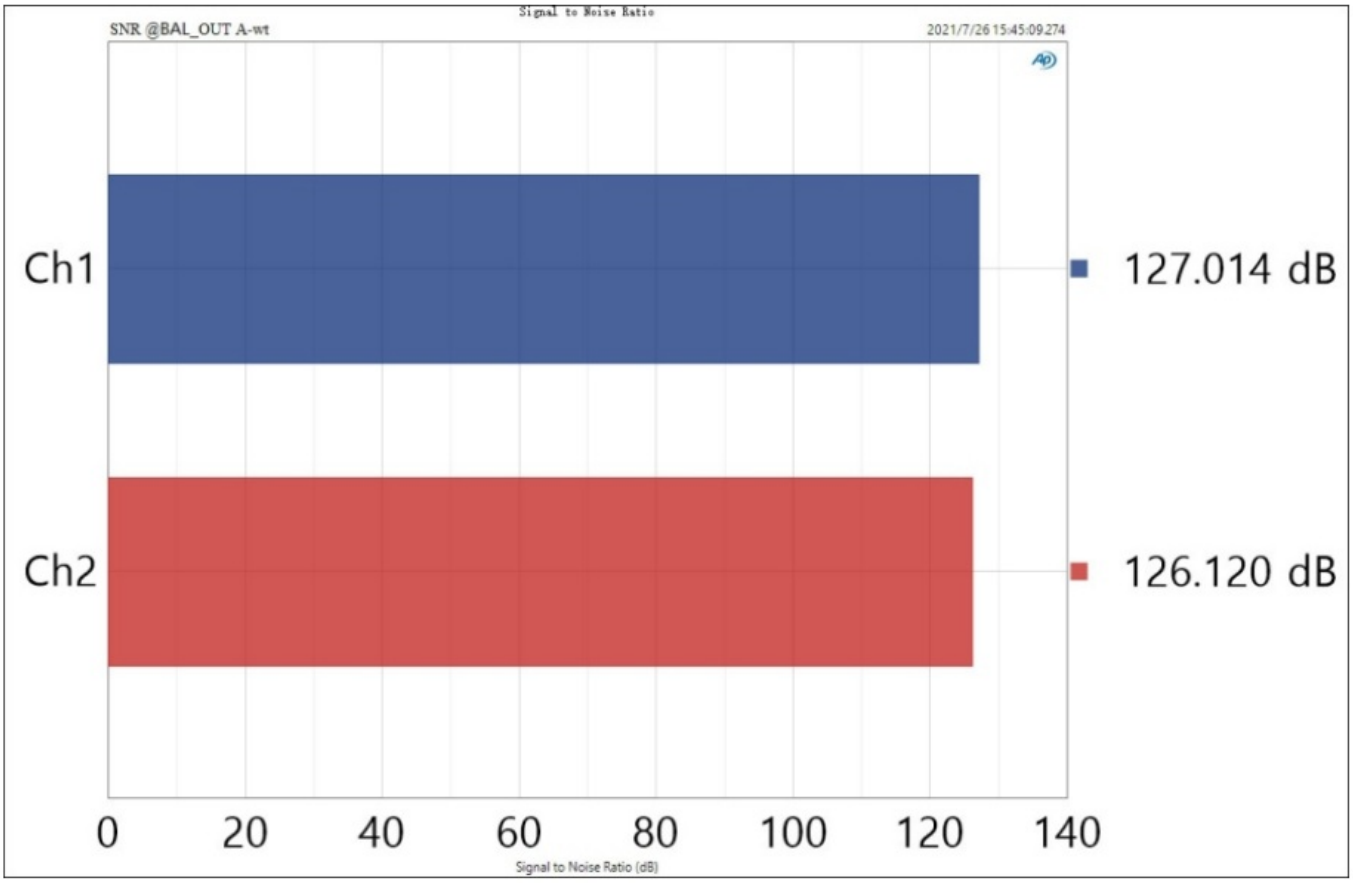

THD Ratio
THD vs Frequency @BAL_OUT
2021/7/26 15:57:59.028
Data
Ch1
THD Ratio (%)
20
10
5
2
1
0.5
0.2
0.1
0.05
0.02
0.01
0.005
0.002
0.001
0.0005
0.0002
0.0001
0.00005
0.00002
0.00001
20 30 40 50 60 80 100 200 300 400 500 600 800 1k 2k 3k 4k 5k 6k 8k 10k 20k
Frequency (Hz)


FFT Spectrum
FFT Spectrum @BAL_OUT @1kHz
2021/7/26 16:17:34.665
Data
Ch1 7
Level (dBrA)
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
-160
-170
20
30
50
100
200
300
500
1k
2k
3k
5k
10k
20k
Frequency (Hz)


FFT Spectrum
FFT Spectrum @BAL_OUT @Filtering mode
2021/7/26 17:12:19.496 - 2021/7/26 17:12:44.452
Data
Ch1 12
Ch2 13
Ch2 14
Level (dBrA)
+10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
12k
16k
20k
24k
28k
32k
36k
40k
44k
48k
Frequency (Hz)


SMPTE Ratio
IMD @BAL_OUT
2021/7/26 17:01:09.643
Data
Ch2 2
SMPTE Ratio (dB)
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
Generator Level (dBFS)


Dynamic Range - AES17
DNR @BAL_OUT A-wt
2021/7/26 15:48:54.188
Ch1
127.197 dB
Ch2
126.277 dB
0
20
40
60
80
100
120
140
Dynamic Range - AES17 (dB)



Introduction to MQA

MQA (Master Quality Authenticated)
MQAIs an award-winning British technology that delivers the sound of the original master recording. The master MQAfile is fully authenticated and is small enough to stream or download.
E50 adopts MQA technology to receive and decode MQA audio and provide master-level sound
Visit [mqa.co.uk](mqa.co.uk) for more information.

Contents list

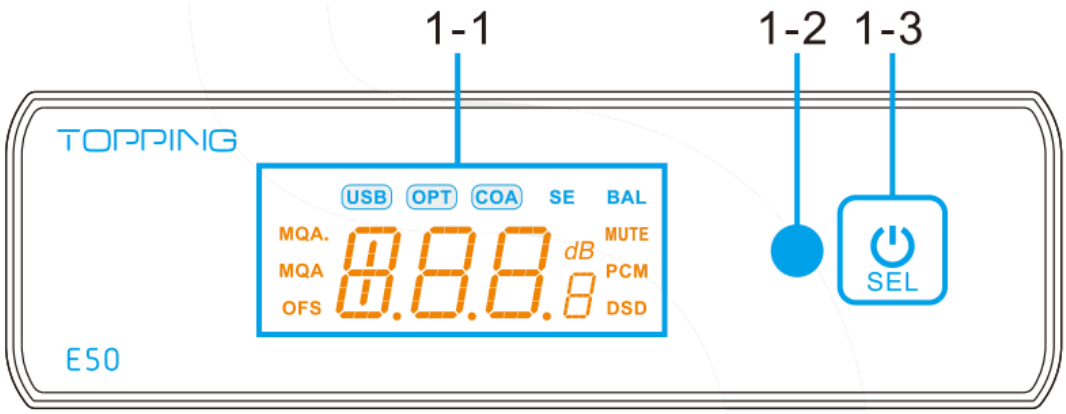
ES50	x 1
Remote control	x 1
USB cable	x 1
DC cable	x 1
User manual	x 1
Warranty card	x 1

Note: You can download the drivers and user manual on http://www.topping.audio/.

Attribute

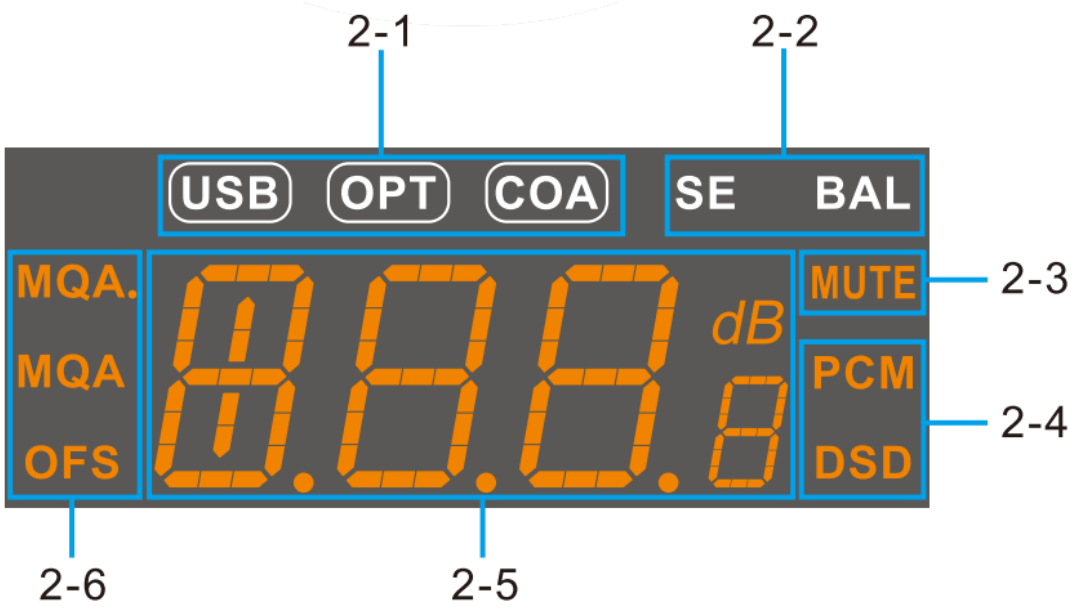
Measured	15.5cm x 12.9cm x 4.1cm
Weight	4459
Power input	DC5V/A
Signal input	USB/OPT/COAX
Line Outoutput	BAL/SE
Display	LED
Power consumption in normal usage	<2.5W

Front panel



1-1 LED screen
1- 2 Remote control receiver
1-3 Multi-function touch button

Display



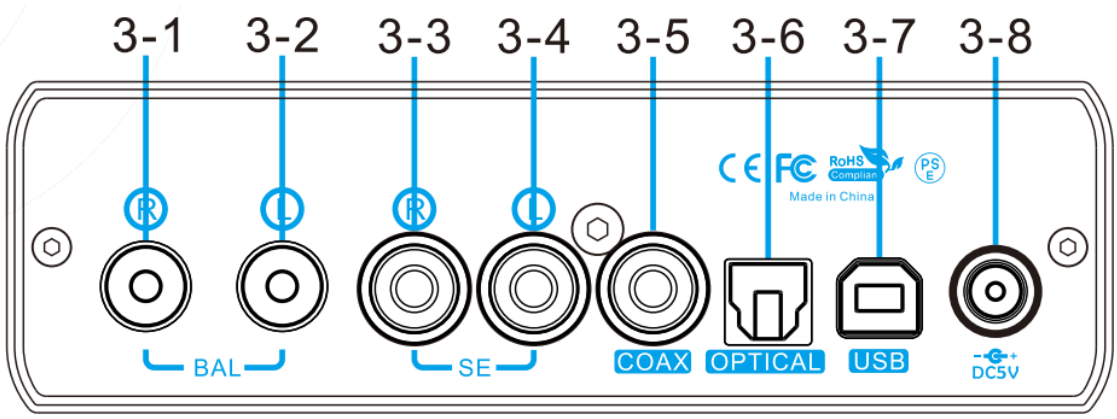
2-1 Input channel
2-2 Output channel
23 Mute indiCation (It always lights up when muted and disappears when it is not muted)
2-4 PCM/DSD format indication

2-5 Sample rate/volume display area
2-6 MQA format indication*

***Note:** There are three forms of MQA operation modes.

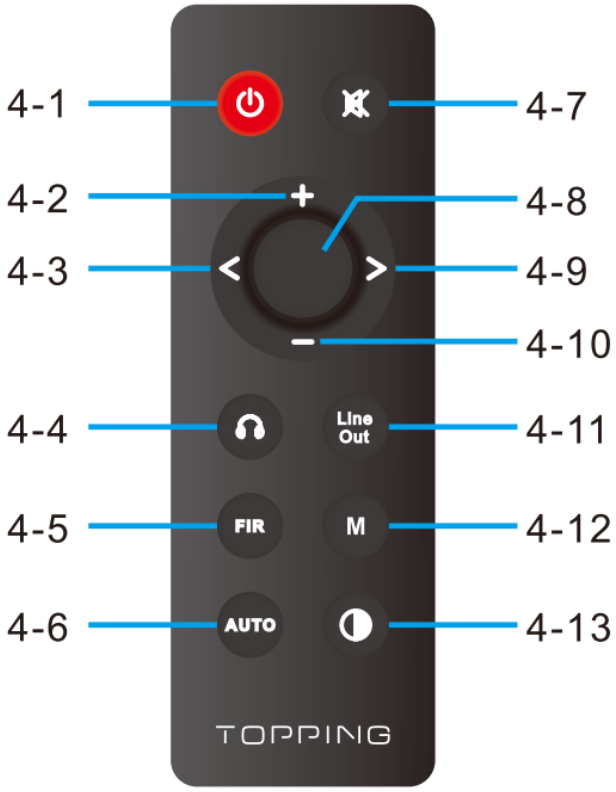
1. “MQA”: Indicates that the product is decoding and playing an MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material.
2. “MQA.”: Indicates itis playing an MQA Studio file, which has either been approved i the studio by the artist/producer orhas been verified by the copyright owner.
3. “OFS”: Confirms that the product is receiving an MQA stream or file. This delivers the final unfold of the MQA file and displays the original sample rate

Rear panel



3-1 Right channel 6.35mm TRS balanced output.
3-2 Left channel 6.35mm TRS balanced output
3-3 Right channel single-ended RCA output
3-4 Leftchannel single-ended RCA output
3-5 Coaxial SPDIF input
3-6 Optical SPDIF input
3-7 USB input
3-8 Powerinput

Remote control



4-1 Standby
4-2 Volume up
4-3 Switch to previous input
4-4 Invalid button
4-5 Filter setting
4-6 Automatic standby
47 Mute
4-8 OK button
4-9 Switch to next input
4-10 Volume down
4-11 Output channel switching
4-12 Invalid button
4-13 Brightness*

***Note:**
“L-1″,”L-2” and “L-3” respectively indicate low, medium and high brightness

“L-A” has the same brightness as “L-2”. The differences lie in when there is no operation after 30 seconds under “L-A” mode, the screen will be automatically turned off, only displays the current input. For example, when it is in USB input, E50 displays as follow. You can press any button to light up the screen.

Input range

USB IN	PCM 44.1kHz-768kHz/16bit-32bit
	DSD DSD64-DSD512 (Native) , DSD64-DSD256 (DoP)
	MQA Full Decode
COAX/OPT IN	PCM 44.1kHz-192kHz/16bit-24bit
	DSD DSD64(Dop)
	MQA Renderer Decode

Specifications

E50 Decoding parameters (USB In©96kHz)		
	SE	BAL
(A-w THD+Nt)	<0.00010% @1kHz	<0.00009% @1kHz
THD (No-wt 90kBw)	<0.0003% @20-20kHz	<0.0003% @20-20kHz
SNR(A-wt)	124dB @1kHz	126dB @1kHz
Dynamic range(A-wt)	124dB @1kHz	126dB @1kHz
Frequency Response	20Hz-20kHz(±0.1dB)	20Hz-20kHz(±0.1dB)
	20Hz-40kHz(±0.3dB)	20Hz-40kHz(±0.3dB)
Output Level	2Vrms @OdBFS	4Vrms @OdBFS
Noise(A-wt)	<1.3uVrms	< 2.3uVrms
Crosstalk	-130dB @1 kHz	-139dB @1 kHz
Channel Balance	0.3 dB	0.3 dB
Output Impedance	200	1000

Operation

Power on & off / standby operation :

1. Power on: When connects to power supply, E50 goes into the standby state, the screen displays a bright dot.
2. Standby setting:
   When it is working, press and hold the multi-function touch button on the front panel to enter standby state and short press to exit standby state when it is in standby. Or you can directly press the standby button on remote control to enter or exit standby state

Note:
When the automatic standby function is on, 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

Volume setting:

1. The enter and exit of mute state: Press the mute button on the remote control to set mute, press the mute button again or adjust the volume to exit mute state.
2. Volume adjusting: Adjust volume by pressing the up/down button on the remote control. Press and hold the up/down button will quickly adjust 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.
Input channel switching : Press the multi-function touch button on the front panel or the “Switch to previous input button” and the “Switch to next input button” on the remote control to switch the input in cycle.
Output channel switching: Press the “Output channel switching” button on the remote control or double press the touch button on the front panel to

switch the output channel. “0-1” indicates only RCA output; “0-2” indicates only TRS output; “0-3” indicates that RCA and TRS are output at the same time.

Setup Menu

Enter the setup menu:
In the standby state, press and hold the multi-function touch button on the front panel for 3 seconds to enter the setup menu of E50
Change and save of settings:

1. The touch button on the front panel: press the touch button to enter the next setting item, double press the touch button to set different parameters. Press and hold the touch button until “8-8” is displayed on the screen to save the settings.
2. The remote control: press the volume up/down button to enter the previous/next setting item, press the left/right button to set different parameters. Press and hold the “OK button” until “8-8” is displayed on the screen to save the settings

Setting descriptions:

PCM filter setting (available for remote control setting, set PCM filter mode when playing PCM)

Description	**Description**
F-1	Fast roll off linear(Default)
F-2	Slow roll off linear
F-3	Fast roll off minimum

Screen brightness setting (Available for remote control setting)

Screen display	Description
L-1	Low
L-2	Mid (Default)
L-3	High
L-A	Mid brightness and screen will be turned off automatically after 30 seconds of no operation

Automatic standby s etting (avaiast orarmots contlsoting)

Screen display	Description
A-O	Auto on(Defaul)
A-C	Auto off

Line Out channel setting (Available for remote control setting)

Screen display	Description
o-1	RCA Outputonly
o-2	TRS Outputonly
o-3	RCASTRS Output simultaneously (Defaut]

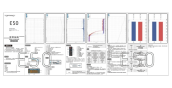
Output mode setting

Screen display	Description
m-p	Per-Amp MOde(Volume adjustable) (Default)
m-d	DAC mode(Volume nonadjustable)

Factory reset:
In standby mode, press the Volume down, Volume up and Mute buttons on the remote control in sequence to restore the factory settings.

TOPPING™

Documents / Resources

	TOPPING E50 High Performance DAC with Three Digital Input [pdf] User Manual E50 High Performance DAC with Three Digital Input, E50, High Performance DAC with Three D igital Input, DAC with Three Digital Input, Three Digital Input, Digital Input, Input

Manuals+,