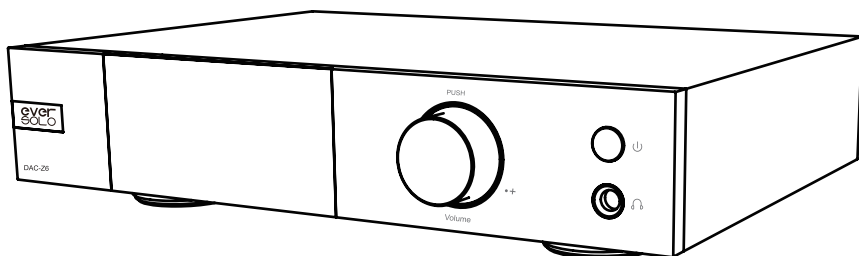


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SOLO

PRODUCT **MANUAL**

EVERSOLO DAC-Z6

High Resolution DAC & Headphone Amplifier



Eversolo Audio Technology Co.,Ltd

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Introduction

Thank you for choosing Eversolo DAC-Z6.

DAC-Z6 is a compact and exquisite fully-balanced DAC and headphone amplifier.

The decoding solution is XMOS 316 and dual ES9068 DAC chips, which supports up to DSD512, PCM 768KHz@32Bit and MQA decoding. Good decoding quality is guaranteed due to the low noise and distortion for D/A conversion.

Two independent channels corresponds to two ES9068 DAC chips respectively for D/A conversion, so that channels interference are effectively avoided. High-precision resistors and fully balanced circuit are designed for lossless amplification for XLR, RCA and headphone output. Channel separation, dynamic range and the sound integrity are greatly improved.

Multiple inputs on DAC-Z6 are available for hi-res digital audio decoding. USB DAC input can be connected with computer and streamer; Type-C is to connect mobile devices like mobile phones or tablets; Optical and Coaxial are to connect streamers and CD players. DAC-Z6 can also connect mobile devices by Bluetooth, just like a Bluetooth decoder, it is BT5.0 and supports APTX HD, LDAC etc.

The professional headphone driving circuit in DAC-Z6 supports good indicators and strong drive. As a high-performance headphone amplifier, high and low gain modes are optional, headphones between 16-300 ohm impedance can be easily driven.

Eversolo DAC-Z8 is the perfect partner for high-fidelity audio equipment or high-end headphones. The exceptional preamp performance, good sound quality and strong headphone driving force will bring you with authentic HiFi music experience.

Please read this manual before using the device so that you could use it correctly.

Specification

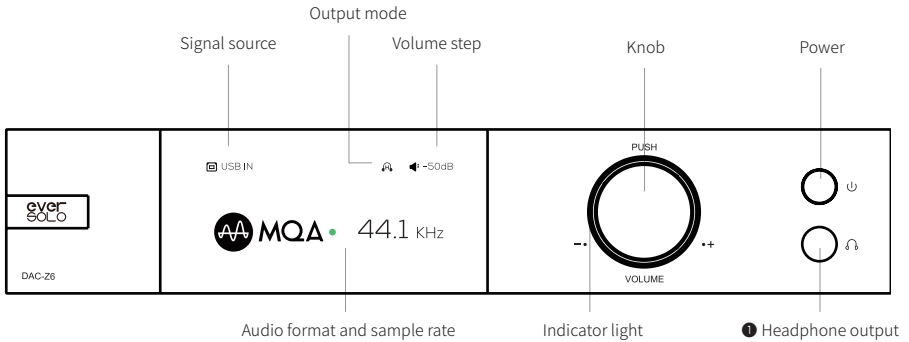
Chassis	Aviation aluminum alloy
Display Screen	3-inch LCD Screen
DAC	ES 9068AS*2
Audio Processor	XMOS XU316
OPA Chip	RT6563D*5
Power	Low noise switching power supply, AC 110~240V 50/60Hz
Bluetooth Audio Input	Qualcomm QCC5125 Bluetooth module, BT5.0 Support SBC/AAC/aptX/aptX LL/aptX HD/LDAC Bluetooth protocol
USB-B DAC Input	Compatible with Windows (7, 10), Mac, Android and IOS Up to stereo DSD512, PCM 768KHz 32Bit and MQA
USB-C DAC Input	Compatible with Windows (7, 10), Mac, Android and IOS Up to stereo DSD512, PCM 768KHz 32Bit, MQA
Optical Audio Input	Up to stereo PCM 192KHz 24Bit, DSD64 Dop and MQA
Coaxial Audio Input	Up to stereo PCM 192KHz 24Bit, DSD64 Dop and MQA
Analog Audio Output	Preamp output: XLR (balanced), RCA; Headphone amp output: 6.35mm single-ended
USB Port	USB2.0*1 (only for firmware upgrade)
Control Methods	Remote control, mobile APP control and knob control
Recommended Headphone Impedance	16-300Ω (low gain mode:16-32Ω/high gain mode: 32-300Ω)
Rated Power	9W
Dimensions	270mm(W) * 187mm(D) * 50mm(H)
Packing List	Remote control*1, power cable*1, USB cable*1, product manual*1

Specification

<p>Analog Audio Characteristics</p>	<p>XLR Audio Output</p> <p>Output Level(Vrms): 4.1Vrms@0dBFS THD+N@A-wt: 0.000094%@1kHz (-120dB@1kHz) THD+N@No-wt: 0.000117%@1kHz (-118dB@1kHz) Noise@No-wt : <3uVrms SNR)@No-wt: 125@1kHz frequency response: 20Hz-20kHz(±0.15dB) CROSSTALK: -123dB@1kHz DNR)@No-wt: 125dB@1kHz</p>
	<p>RCA Audio Output</p> <p>Output Level(Vrms): 2.1Vrms@0dBFS THD+N@A-wt: 0.000116%@1kHz(-118dB@1kHz) THD+N@No-wt: 0.000138%@1kHz(-117dB@1kHz) Noise@No-wt : <2.5uVrms SNR)@No-wt: 21dB@1kHz frequency response: 20Hz-20kHz(±0.15dB) CROSSTALK: -118dB@1kHz DNR)@No-wt: 121dB@1kHz</p>
	<p>Headphone</p> <p>Low gain mode</p> <p>Output Level(Vrms): 1.2Vrms@0dBFS Max Power: : 45 mW@32Ω THD+N@A-wt: 0.00028%@1kHz(-111dB@1kHz) THD+N@No-wt: 0.00031%@1kHz(-110dB@1kHz) Noise@No-wt : <3.5uVrms SNR)@No-wt: 114dB@1kHz frequency response: 20Hz-20kHz(±0.15dB) DNR)@No-wt: 114dB@1kHz</p> <p>High gain mode</p> <p>Output Level(Vrms): 2.8Vrms@0dBFS Max Power: 26 mW@300Ω THD+N@A-wt: 0.00014%@1kHz(-117dB@1kHz) THD+N@No-wt: 0.00016%@1kHz(-116dB@1kHz) Noise@No-wt : <3.5uVrms SNR)@No-wt: 121dB@1kHz frequency response: 20Hz-20kHz(±0.15dB) DNR)@No-wt: 121dB@1kHz</p>

Hardware Introduction

1. Front panel



Control knob

Volume adjustment:

The knob can control volume when the device is in playback status. Rotate clockwise to increase volume while counterclockwise to decrease volume.

*Volume can be adjusted with step 0.5dB~3dB in DAC setting.

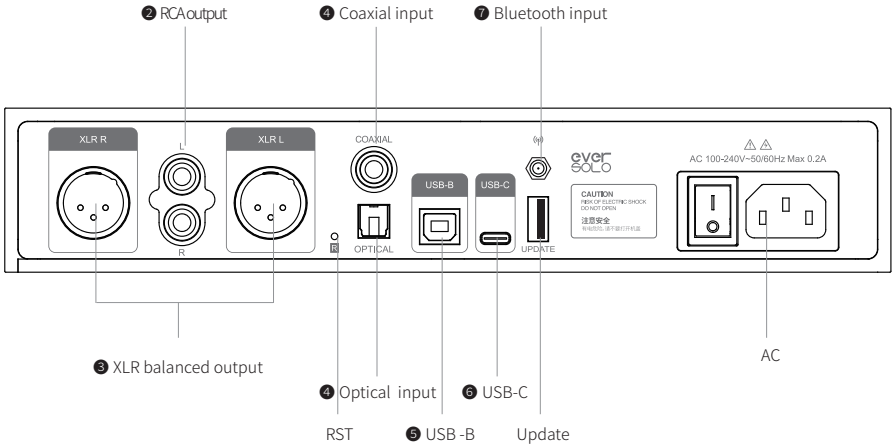
Setting menu:

Short press the knob will access into setting menu. Rotate left/right to navigate the menu upward/downward. Short press the knob again to confirm or access into the sub-menu.

Audio source selection:

Long press the knob to select audio source, rotate left/right to choose left/right audio source channels.

2.Rear panel



Output

① Headphone output

Connect a headphone with 6.35mm single-ended jack to DAC-Z6 headphone jack.

Note:

Select the suitable gain mode in DAC setting to adapt to headphones with different sensitivities and impedances.

Headphone input has a higher priority than XLR/RCA, when it is in the mode of headphone output, the signal output of XLR/RCA will be disconnected.

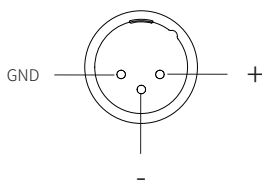
② RCA output

Connect DAC-Z6 RCA output to power amplifier or active speaker RCA input by a RCA audio cable.

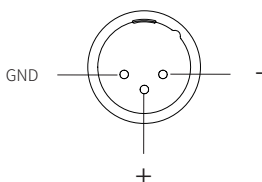
③ XLR balanced output

Connect DAC-Z6 XLR output to power amplifier or active speaker XLR input by XLR audio cable.

*The positive and negative polarities are reversed for some audio systems, the default positive polarity of DAC-Z6 are shown below. If you need to reverse the polarity, please set it in the system: Settings > DAC audio > XLR Port Polarity >Reverse.



Positive Polarity Diagram



Negative Polarity Diagram

In order to reduce the possible signal interference of the RCA and XLR simultaneous output, XLR and RCA can be output separately by setting in the menu. Higher audio indicators and better sound quality can be obtained through separate output.

Input

④ Optical/Coaxial input

Connect this device with S/PDIF devices like media player and CD player by a Optical/Coaxial audio cable.

Please set the signal source to Optical/Coaxial.

⑤ USB DAC Input

Connect the computer to the USB DAC input of this device by USB-A to USB-B cable.

Computer is the digital audio source, this device is used as a computer sound card to decode audio signals.

Please select the signal source to "USB DAC IN".

Notes:

*Please refer to File Download part below to download Windows driver.

*EVERSOLO DAC-Z6 is working as the audio output device when connecting with the computer, the settings are as follows.

Windows: Download and install the driver on the computer, find "Control Panel>Hardware and Sound >Sound >Playback", then select "EVERSOLO USB AUDIO".

Mac: No driver is needed to be installed, find "System Preferences >Sound>Output", then select "EVERSOLO USB AUDIO".

6 USB Type C input

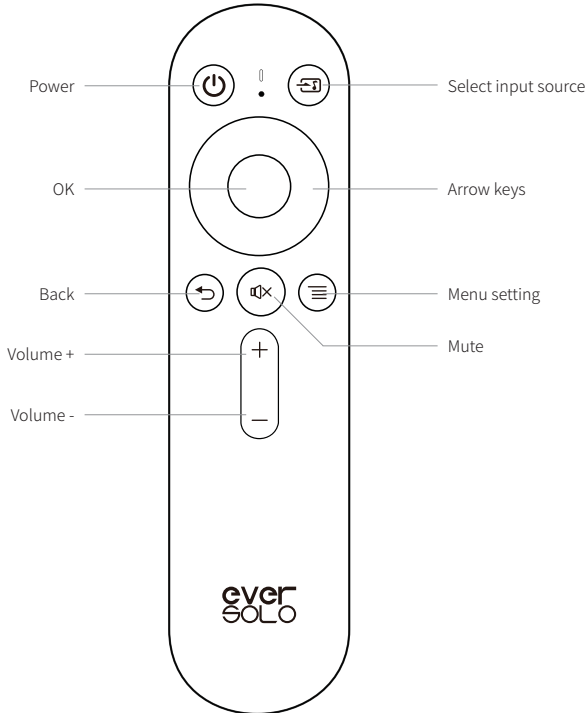
Connect mobile phone or tablet to the USB-C port of this device by date cable, mobile device is used as a digital audio source to input into this device for audio decoding. Android devices use Type-C to Type-C OTG cable, while IOS devices use Lightning to Type-C cable. Please set the signal source to "USB Type C IN".

7 Bluetooth input

The device has a built-in Bluetooth receiver, with the support of Bluetooth audio protocol SBC/AAC/aptX/aptX LL/aptX HD/LDAC, it can connect with different mobile devices by Bluetooth.

Please set the signal source to "Bluetooth IN", enable Bluetooth on mobile device and search "DAC-Z6" to finish Bluetooth pairing.

3.Remote control



Basic Settings

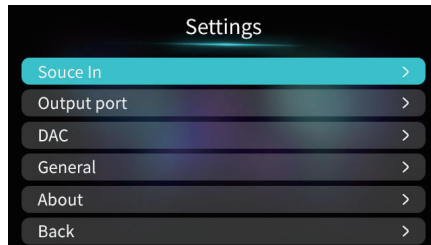
1. Signal source

Long press then rotate the knob or press "⏮" key on remote control to switch input source.



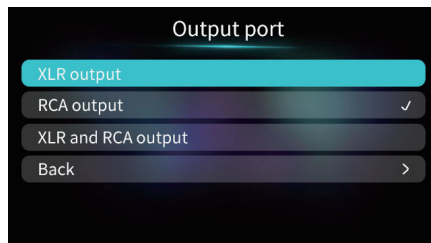
2. Settings

Short press the knob or press "≡" key on remote control.



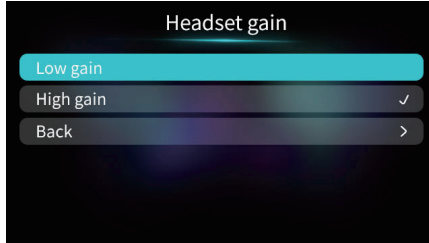
3. Output port

Enter the setting menu > Output port > XLR output/ RCA output/ XLR and RCA output.



4. Headset gain

Enter the setting menu > DAC > Headset gain, select high gain or low gain.



5. Volume control steps

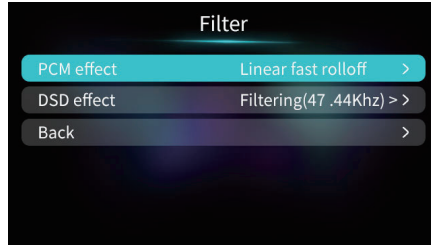
Enter the setting menu > DAC > Volume control steps, adjust the suitable volume step.

"Power-on volume" is to select the volume when powering on, customize the volume or keep the last volume.


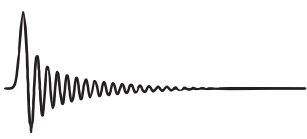
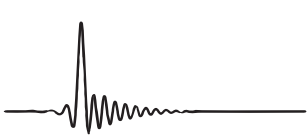


6.Filter

Enter the setting menu > DAC > Filter, adjust DAC filtering characteristics for DSD or PCM to output different sound styles.

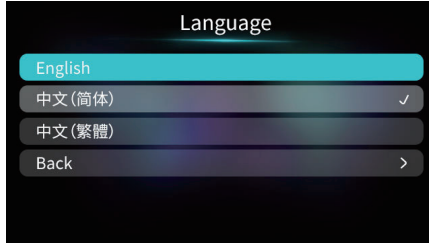


ES9068AS DAC (PCM) CHARACTERISTICS

FILTER	IMPULSE RESPONSE	CHARACTERISTIC	Distance	Edge
Fast Roll-Off, Linear Phase Filter		Low order reverb, natural	Far	Neutral
Slow Roll-Off, Minimum Phase Filte		Intermediate reverb, warm	Middle	Neutral
Hybrid, Fast Roll-Off, Minimum Phase Filter		High order reverb, mellow	Close	Sharp

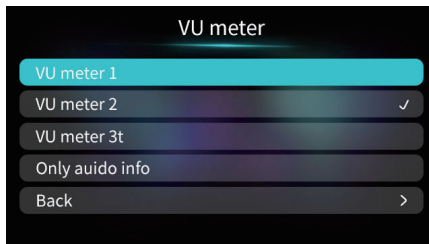
7.language

Enter the setting menu > General > Language, select language for menu and user interface.



8.VU meter

Enter the setting menu > General > VU meter, select VU meter mode in for the playback interface according to your preferences.



9. Energy Saver

Enter into Menu → "General" → "Energy Saver" to adjust the Screen Brightness, Standby and Screen Off Settings.



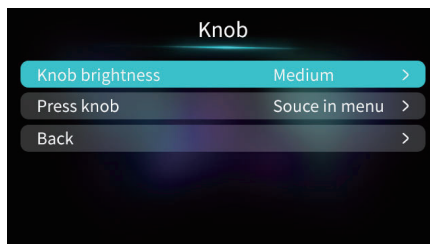
Screen Brightness: Adjust the brightness levels according to your preference.

Standby: Select the time interval that you want the device to standby when no playback. The screen display will be turn off and DAC circuit will be cut off. The device will go back to work status when system detects the input of audio source or when we switch audio source manually and press POWER key.

Screen Off: Select the time interval to automatically turn off the screen when no operation is performed on the device. The screen will light up again once operating.

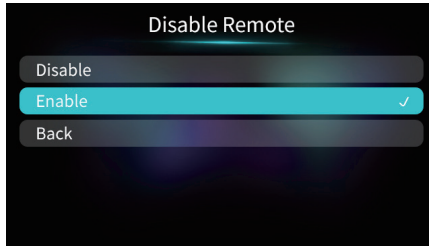
10. Knob

Enter the setting menu > General > Knob, set up the brightness level of the ambient light and customize function for short pressing the knob(system menu or input source selection).



11. Disable Remote

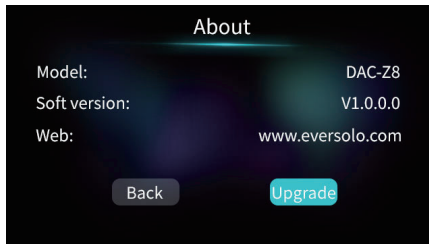
This function is for the situation when 2 or more EVERSOGO DACs in the same environment, so that DACs will not be controlled at the same time. Enter into Menu → "General > " → ">"Other" → "Disable Remote: Disable/Enable"



Note: If the device cannot be controlled by remote, please check whether remote is disabled.

12. Firmware upgrade

Download the firmware package on EVER SOLO official website to a U disk, connect the U disk to DAC-Z6 USB A port. Access system menu> About> Upgrade to upgrade firmware, wait for the device to restart automatically after upgrading the firmware successfully.



Note: Don't unplug the U disk or power the device off during the firmware upgrade period.

MQA (Master Quality Authenticated)

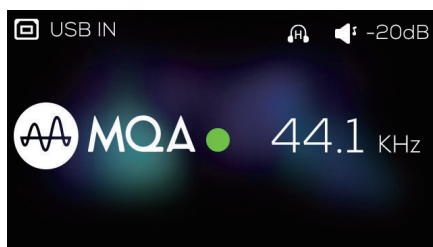
Eversolo DAC-Z6 includes MQA technology, which enables you to play back MQA audio files and streams, delivering the sound of the original master recording.

The green or blue dot next to MQA logo indicates that the unit 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. The blue dot indicates it is playing an MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner. The magenta dot 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.

● MQA

● MQA Studio

● MQA Core



MQA (Master Quality Authenticated)

MQA is an award-winning British technology that delivers the sound of the original master recording. The master MQA file is fully authenticated and is small enough to stream or download.

DAC-Z6 adopts MQA technology to receive and decode MQA audio and provide master-level sound.

Visit mqa.co.uk for more information.

MQA and the Sound Wave Device are registered trade marks of MQA Limited © 2016

File Download

Download firmware, USB driver and controller app on the DOWNLOADS page of official website: www.eversolo.com

Or scan the QR codes below to download.

When downloading the driver, please unzip the package, double click .exe file and complete the installation via the instruction.



Driver/APP download

Special note:

EVERSOLO will upgrade firmware from time to time in order to improve user experience, so that this manual might differ with the situation of real product. The functions or parameters of this device are subject to adjustment without prior notice.

For more information, please visit our official website: www.eversolo.com

Safety Warning

1. No water splashing or dripping, don't put objects with liquids like vases on the device.
2. The socket should be put aside the device for easy operation and no occlusions.
3. It is a Class I device, there must be grounding measures inside the box when using.



* Safe using below 2000m altitude.