Introduction

Thank you for choosing EverSolo DAC-Z8.

DAC-Z8 is an all-in-one DAC, fully balanced preamp and headphone amplifier. With the integration of XMOS 316 and ESS flagship ES9038 Pro DAC chip, DAC-Z8 is capable of decoding up to DSD512, PCM 768Khz@32Bit and MQA and ensuring D/A conversion with low noise and distortion.

DAC-Z8 analog circuit has imported the multi-channel shunt compensation technology. 8 OPA1612 correspond to 8-channel output for I/V signal conversion, then output to 2 channels in parallel. In addition to high-precision resistances and fully balanced circuit design, it helps amplifying XLR, RCA and headphone output signal lossless, improving channel separation, dynamic range and the sound integrity.

There are diverse inputs for hi-res digital audio decoding for DAC-Z8. 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-Z8 can also connect mobile devices by Bluetooth, just like a a Bluetooth decoder, it is BT5.0 and supports APTX HD, LDAC.

The professional headphone driver circuit in DAC-Z8 has excellent audio indicators and strong driving force, which means DAC-Z8 can be used as a high-performance headphone amplifier and drive 16-300ohm HiFi headphones, with both high and low gain output options.

EVER SOLO 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 all features correctly.
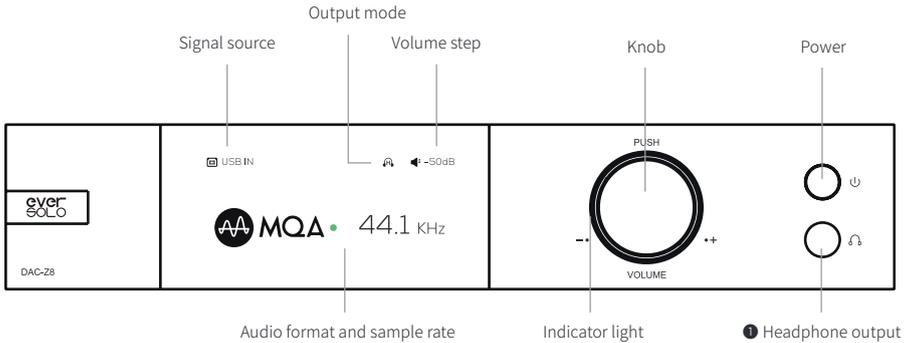
Specification

Chassis	Aviation aluminum alloy
Display Screen	3-inch LCD Screen
DAC	ES 9038Pro
Audio Processor	XMOS XU316
OPA Chip	OPA1612*10
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

Analog Audio Characteristics	**XLR Audio Output** Output level(Vrms): 4.1Vrms@0dBFS THD+N@A-wt: 0.000062%@1kHz（-124dB@1kHz) THD+N@No-wt: 0.000069%@1kHz（-123dB@1kHz) Noise@No-wt: <1.2uVrms SNR @No-wt: 133dB@1kHz Frequency response: 20Hz-20kHz($\pm$0.1dB) Crosstalk: -130dB@1kHz DNR @No-wt: 133dB@1kHz
	RCA Audio Output Output level (Vrms): 2.3Vrms@0dBFS THD+N@A-wt: 0.000086%@1kHz(-121dB@1kHz) THD+)@No-wt: 0.000097%@1kHz(-120dB@1kHz) Noise @No-wt: <1.5uVrms SNR @No-wt: 126dB@1kHz Frequency response: 20Hz-20kHz($\pm$0.1dB) Crosstalk: -123dB@1kHz DNR@No-wt: 126dB@1kHz
	Headphone **Low gain mode** Output level(Vrms): 1.2Vrms@0dBFS Maximum undistorted power: 45 mW@32Ω THD+N@A-wt: 0.00015%@1kHz(-116dB@1kHz) THD+N@No-wt: 0.00018%@1kHz(-115dB@1kHz) Noise @No-wt: <2uVrms SNR@No-wt: 124dB@1kHz Frequency response: 20Hz-20kHz($\pm$0.1dB) DNR @No-wt: 119dB@1kHz **High gain mode** Output level(Vrms): 2.8Vrms@0dBFS Maximum undistorted power: 26 mW@300Ω THD+N@A-wt: 0.00016%@1kHz(-116dB@1kHz) THD+N@No-wt: 0.00016%@1kHz(-116dB@1kHz) Noise@No-wt: <2uVrms SNR@No-wt: 124dB@1kHz Frequency response): 20Hz-20kHz($\pm$0.1dB) DNR @No-wt: 124dB@1kHz

Hardware Introduction

1.Front panel

Signal source

Output mode

Volume step

Knob

Power

USB IN   −50dB

ever SOLO

DAC-Z8

MQA • 44.1 KHz

PUSH

VOLUME

Audio format and sample rate   Indicator light   ❶ Headphone output

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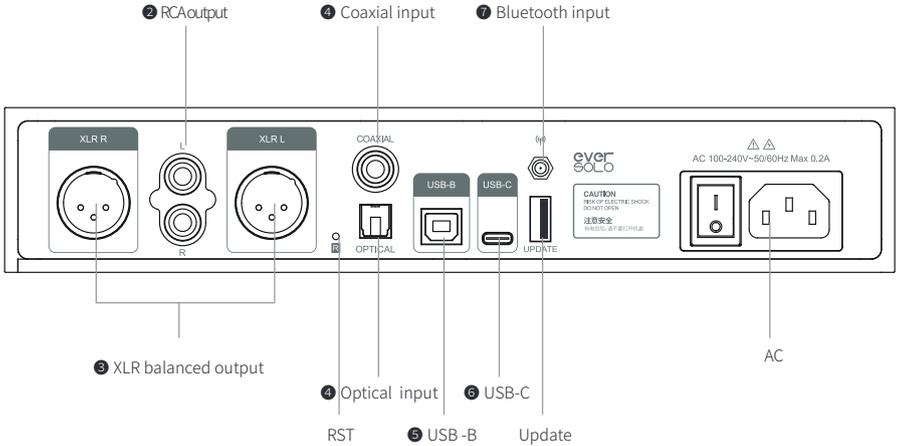
*Volume can be adjusted with step 0.5dB~3dB in DAC setting.

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

❷ RCAoutput   ❹ Coaxial input   ❼ Bluetooth input

❸ XLR balanced output

❹ Optical input   ❻ USB-C

RST   ❺ USB -B   Update

AC

Output

❶ Headphone output

Connect a headphone with 6.35mm single-ended jack to DAC-Z8 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.

❷ RCA output

Connect DAC-Z8 RCA output to power amplifier or active speaker RCA input by a RCA audio cable.

❸ XLR balanced output

Connect DAC-Z8 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-Z8 are shown below. If you need to reverse the polarity, please set it in the system: Settings > DAC audio > XLR Port Polarity >Reverse.

GND ──── ＋

−
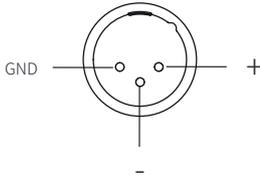
Positive Polarity Diagram

GND ──── −

＋
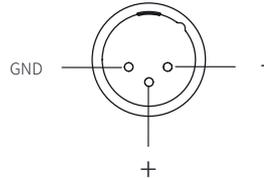
Negative Polarity Diagram

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

❹ 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.

❺ 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-Z8 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".

❻ 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".

❼ 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-Z8" to finish Bluetooth pairing.

3.Remote control

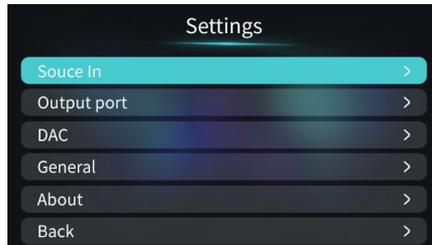|	
Power	Select input source
OK	Arrow keys
Back	Menu setting
	Mute
Volume +	
Volume -	
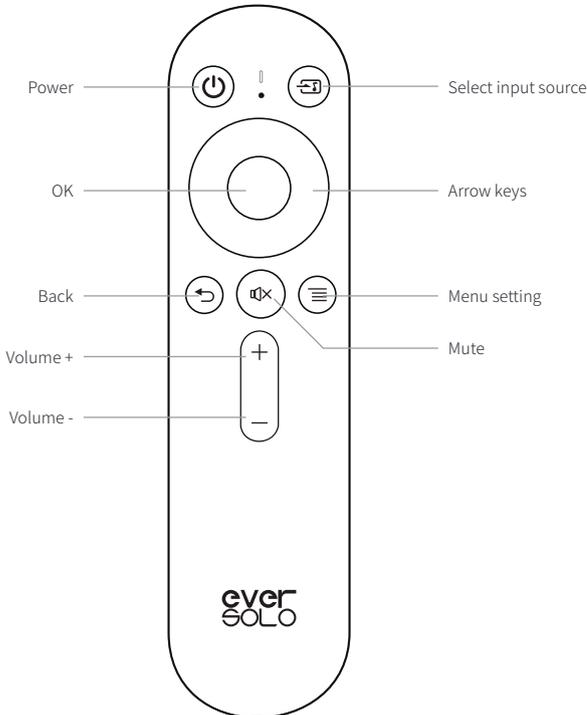
Basic Settings

1. Signal source

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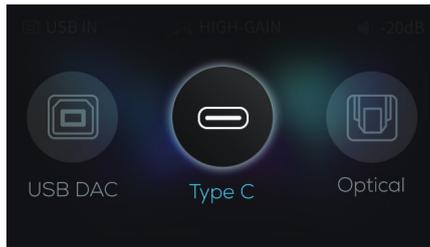
2.Settings

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.
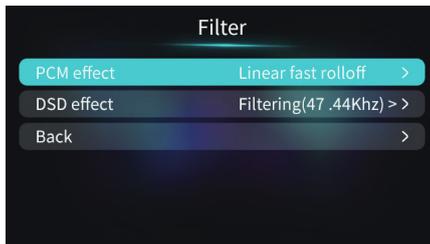
5.Volume control steps

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.
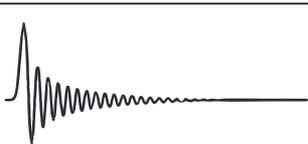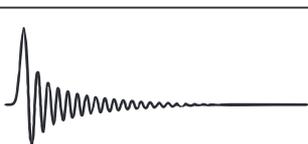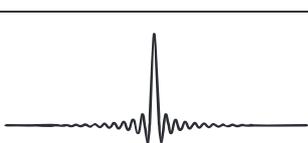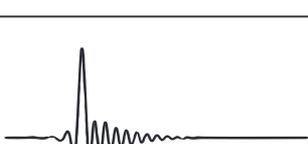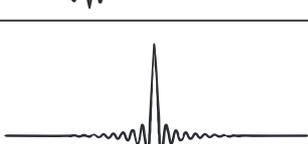
6.Filter

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

## ES9038 Pro DAC（PCM）CHARACTERISTICS

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

7.language

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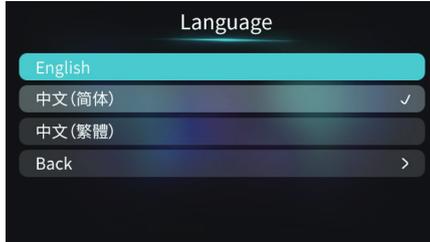
8.VU meter

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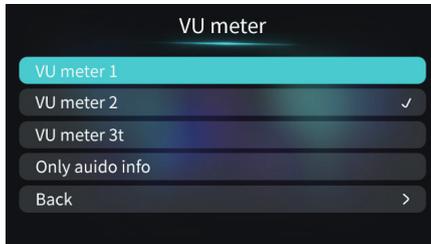
9.Energy Saver

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

Energy Saver

| Screen Brightness	Brighter	>
Standby	OFF	>
Screen Off	OFF	>
Back		>

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).

Knob

| Knob brightness	Medium	>
Press knob	Souce in menu	>
Back		>
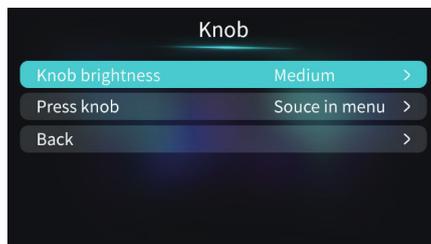
11.Disable Remote

This function is for the situation when 2 or more EverSolo 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"
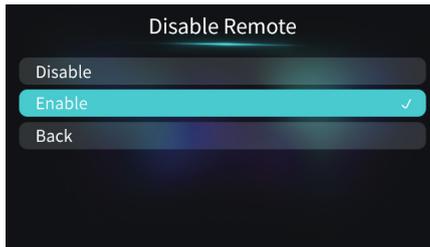
Note: If the device cannot be controlled by remote, please check whether remote is disabled.

12.Firmware upgrade

Download the firmware package on EVER SOLO official website to a U disk, connect the U disk to DAC-Z8 USB A port. Access system menu> About> Upgrade to upgrade firmware, wait for the device to restart automatically after upgrading the firmware successfully.
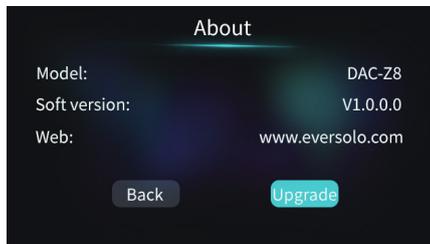
Note: Don't unplug the U disk or power the device off during the firmware upgrade period.
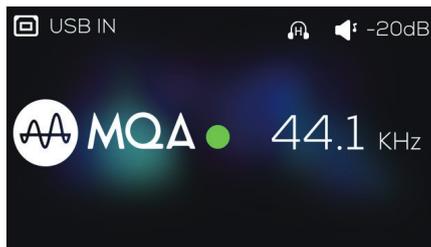
MQA (Master Quality Authenticated)

Eversolo DAC-Z8 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 (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-Z8 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.

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)This device may not cause harmful interference, and(2)this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may
cause harmful interference to radio communications. However, there is no
guarantee that interference will not occur in a particular installation. lf this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

· Reorient or relocate the receiving antenna.
· lncrease the separation between the equipment and receiver.
· Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
· Consult the dealer or an experienced radio/TV technician for help
Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment

RF Exposure Information
The device has been evaluated to meet general RF exposure requirement The device can be used in portable exposure condition without restriction.