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› Fanmusic Topping E30II Lite AK4493S DAC User Manual

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Model: E30 II lite

1. INTRODUCTION

The Topping E30II Lite is a high-resolution Digital-to-Analog Converter (DAC) designed to deliver exceptional audio performance. Featuring AKM's VELVET Sound technology with the AK4493S chip, it offers a dynamic range of up to 121dB and ultra-low Total Harmonic Distortion (THD) of less than 0.0004%.



Image: Close-up of the AK4493S DAC chip, central to the E30II Lite's audio processing.

This device supports audio streams up to DSD512 and PCM768kHz, ensuring compatibility with a wide range of high-fidelity audio formats. It is compatible with various operating systems including Windows 10/11, MAC, Linux, iOS, and Android. The E30II Lite also incorporates a Discrete LNRD circuit for stable, ultra-low noise power supply, resulting in a noise floor lower than 1.9uV.



Image: Detail of the Discrete LNRD circuit on the E30II Lite's PCB, designed for ultra-low noise power.

This manual provides detailed instructions for setting up, operating, and maintaining your Topping E30II Lite DAC.



Image: Front view of the Topping E30II Lite AK4493S DAC, showcasing its display and touch controls.

2. SETUP

Follow these steps to set up your Topping E30II Lite DAC:

1. **Power Connection:** The E30II Lite requires a 5V DC power supply. It does not come with a dedicated power adapter but is compatible with any standard USB charger (e.g., a smartphone charger). Use the provided USB A to 3.5mm adapter cable to connect the DAC to a 5V USB power source.

Preamplifier Mode

The E30 II lite is equipped with a built-in volume control function that makes it easy to adjust the volume from -99dB to 0dB using the remote control. The E30 II lite can also be connected directly to an amplifier, pure power amplifiers or active speakers, controlling the volume level through the E30 II lite, allowing you to enjoy music more comfortably.



Image: Illustrates connecting the E30II Lite to a 5V USB power source using the adapter cable.

2. **Input Connection:** Connect your audio source to the E30II Lite using one of the available input options:
 - **USB Input:** For connecting to computers (Windows, MAC, Linux) or mobile devices (iOS/Android).
 - **Coaxial SPDIF Input:** For digital turntables, CD players, set-top boxes, or game consoles. Supports up to 24bit/192kHz.
 - **Optical SPDIF Input:** Similar to coaxial, for various digital audio sources. Supports up to 24bit/192kHz.
3. **Output Connection:** Connect the E30II Lite's RCA outputs (Right channel single-ended RCA output, Left channel single-ended RCA output) to your amplifier, pure power amplifiers, or active speakers.

What are the differences

	E30 II	E30 II <i>lite</i>	E30
DAC	2x AK4493S	1x AK4493S	1x AK4493
DIR	Digital Processing	Digital Processing	CS8416
SINAD	119dB	117dB	115dB
SNR	123dB	121dB	120dB
Dynamic Range	123dB	121dB	119dB
Noise	<1.5uV	<1.9uV	<2.0uV
Internally powered	Discrete LNRD	Discrete LNRD	LDO

Image: Rear panel of the E30II Lite showing USB, Coaxial, Optical inputs, and RCA outputs.

- Windows Driver Installation (for ASIO applications):** For optimal performance with ASIO applications on Windows systems, driver installation may be required. Refer to the official Topping website for the latest drivers and installation instructions. For other operating systems, the device is generally plug-and-play.
- Remote Control Batteries:** The remote control requires 2 AAA batteries (not included). Insert them before use.

3. OPERATING INSTRUCTIONS

The Topping E30II Lite offers flexible operation through its touch interface and remote control.

3.1 Front Panel Controls and Display

DAC filter mode

E30II lite is capable of providing 6 filter modes under PCM decoding, 2 filter modes under DSD decoding, enabling fine-tuning of details.

(Note: it is not the same as EQ function)

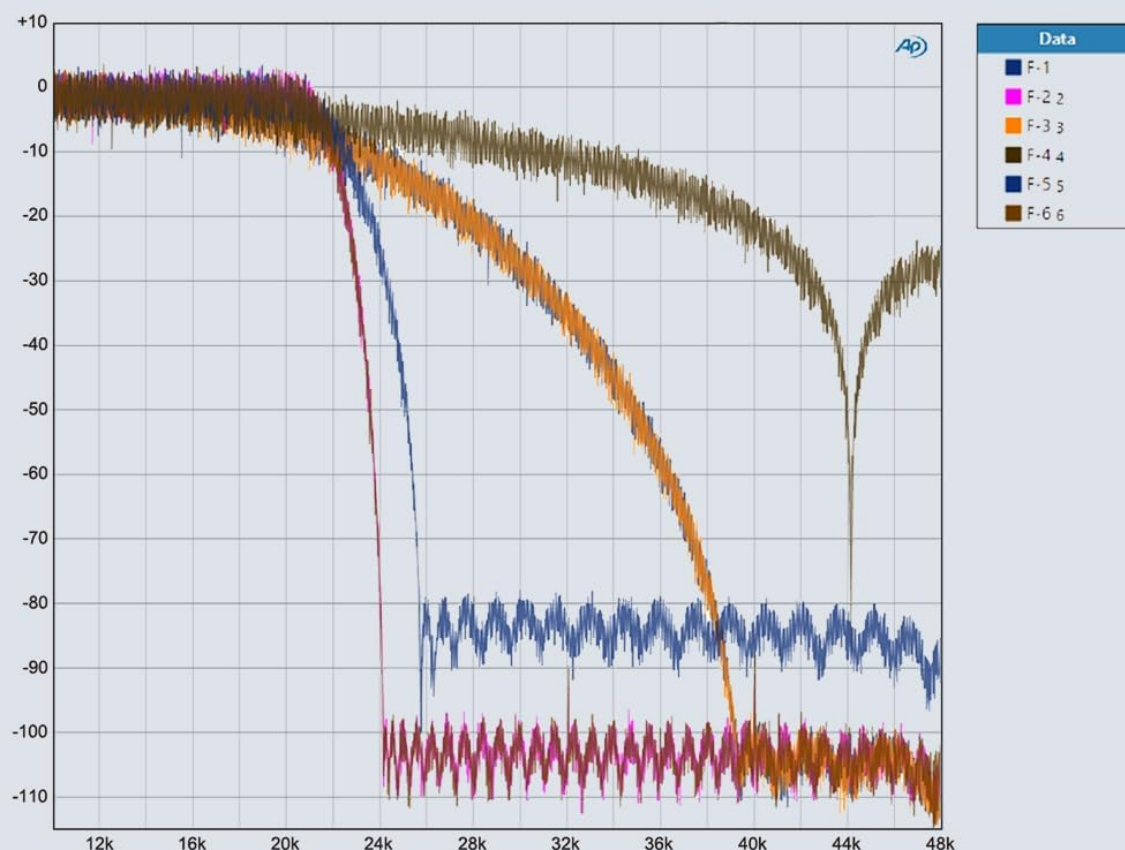


Image: Close-up of the E30II Lite's front panel, showing the LED screen, remote control receiver, and multifunction touch button.

- **LED Screen:** Displays current input, sample rate, and volume level.
- **Remote Control Receiver:** Infrared receiver for the included remote control.
- **Multifunction Touch Button:** Used for basic operations such as input selection and power on/off.

3.2 Preamp Mode (Volume Control)

The E30II Lite features a built-in volume control function, allowing adjustment from -99dB to 0dB using the remote control. This enables direct connection to an amplifier, pure power amplifiers, or active speakers, with the E30II Lite managing the volume level.

Good partner —

L30 II headphone amplifier

E30 II lite and L30 II have the same design concept, both detail workmanship and sound quality performance show the high quality of the product. L30 II headphone amplifier can drive most of the headphones on the market and match perfectly. Whether you are a music enthusiast or an everyday user, its excellent sound quality can meet your needs.



Image: The E30II Lite display showing a volume level in Preamp Mode, connected to speakers.

3.3 DAC Mode (Fixed Output)

The E30II Lite can also operate in a pure DAC mode, bypassing its internal volume control to provide a constant high-level output. In this mode, DSD signals are directly output to the analog section, avoiding unnecessary signal conversion for a more realistic sound reproduction.

Discrete LNRD

The Discrete LNRD circuit filters out the noise of various 5V power input and provides stable power supply of ultra-low noise reference level for E30 II lite. With this technology, the noise floor of E30 II lite is lower than 1.9uV.

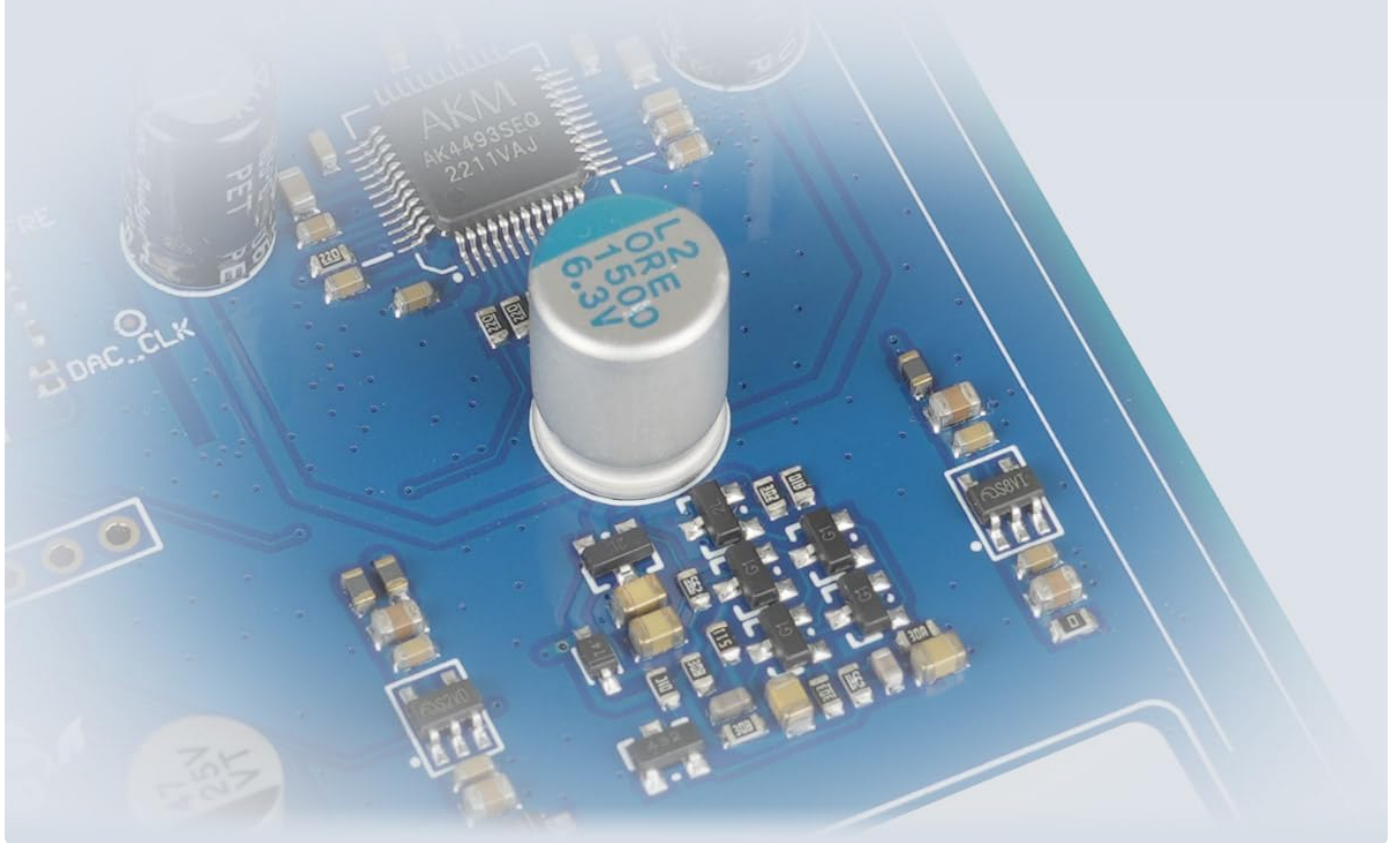


Image: Block diagram illustrating the DSD Volume Bypass path within the E30II Lite's DAC architecture.

3.4 DAC Filter Modes

The E30II Lite offers 6 filter modes for PCM decoding and 2 filter modes for DSD decoding. These filters allow for fine-tuning of audio details to suit personal preferences. Note that these are not equivalent to an equalizer (EQ) function.

DAC Mode

The E30 II lite can also turn off the volume control function to maintain a constant high level output, so that the E30 II lite works as a pure DAC.

In this mode, the DSD signal will directly output to analog part, bypassing unnecessary signal conversion and making the signal more realistic.

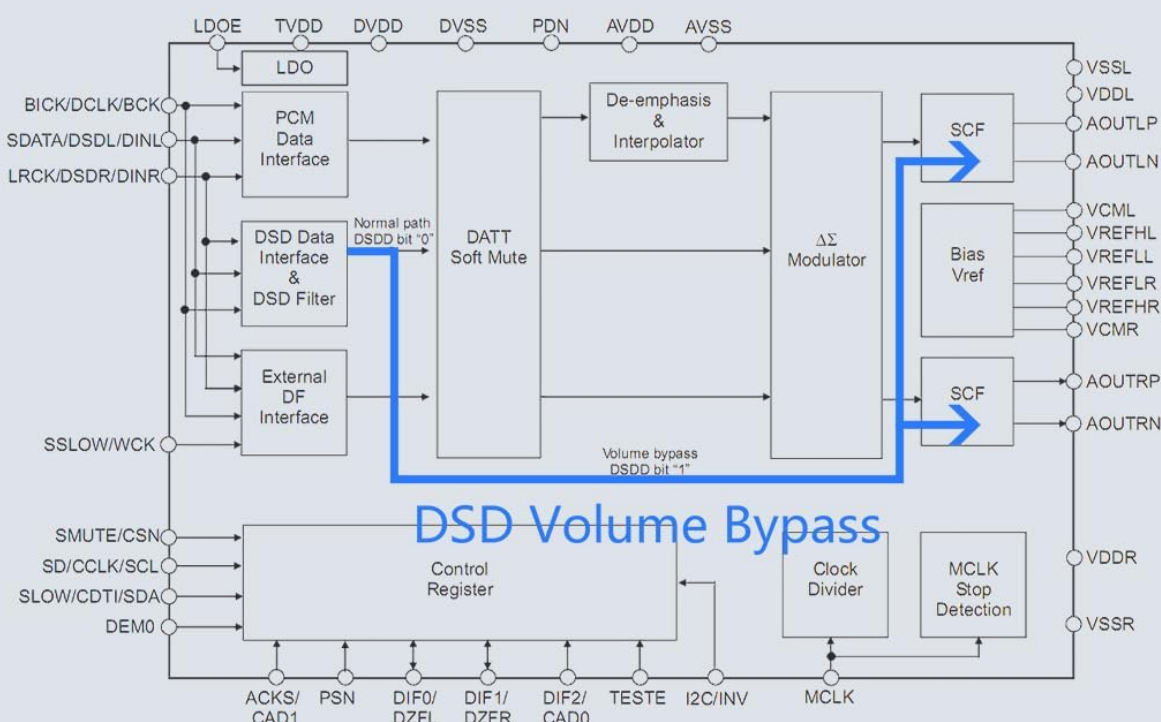


Image: Graph showing the frequency response characteristics of different DAC filter modes available on the E30II Lite.

4. MAINTENANCE

To ensure the longevity and optimal performance of your Topping E30II Lite DAC, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Avoid using liquid cleaners, aerosols, or solvents, as these may damage the finish or internal components.
- **Environment:** Operate and store the DAC in a clean, dry environment, away from direct sunlight, excessive heat, humidity, and dust.
- **Ventilation:** Ensure adequate ventilation around the unit to prevent overheating. Do not block any ventilation openings.
- **Handling:** Handle the device with care. Avoid dropping it or subjecting it to strong impacts.
- **Power Off:** Disconnect the power supply if the unit will not be used for an extended period.

5. TROUBLESHOOTING

If you encounter issues with your Topping E30II Lite, refer to the following troubleshooting tips:

- **No Power:**
 - Ensure the 5V DC power supply is correctly connected and functioning.
 - Verify that the USB charger used is providing sufficient power.
- **No Sound Output:**
 - Check all audio cable connections (input and output) to ensure they are secure.
 - Confirm the correct input source is selected on the E30II Lite.
 - If in Preamp Mode, ensure the volume is not set to minimum (-99dB) or muted.
 - Verify that your amplifier or active speakers are powered on and set to the correct input.
 - For Windows users, ensure the correct audio driver is installed and selected as the output device in your system settings.
- **Distorted or Poor Sound Quality:**
 - Check the quality of your input audio cables.
 - Ensure the sample rate displayed on the E30II Lite matches the source audio.
 - Try different DAC filter modes to see if it improves the sound.
 - Ensure the source audio file is not corrupted or of low quality.
- **Remote Control Not Responding:**
 - Ensure the remote control has fresh AAA batteries installed correctly.
 - Point the remote directly at the remote control receiver on the E30II Lite's front panel. The remote can be sensitive to aiming.
 - Remove any obstructions between the remote and the DAC.

6. SPECIFICATIONS

Feature	Specification
Brand	Fanmusic (Topping)
Model Number	E30 II lite
DAC Chip	AK4493S (VELVET Sound Technology)
USB Interface Chip	XMOS AU208
Supported Audio (USB)	DSD512 Native, PCM 32bit/768kHz
Supported Audio (Coaxial/Optical)	24bit/192kHz
Dynamic Range	Up to 121dB
THD+N	<0.0004%
Jitter	As low as -153dB
Noise Floor	<1.9uV (Discrete LNRD)
Inputs	USB, Coaxial SPDIF, Optical SPDIF
Outputs	RCA L/R Single-ended

Feature	Specification
Maximum Supply Voltage	5 Volts (DC)
Number of Channels	2
Item Weight	1.32 pounds (approx. 0.6 kg)
Package Dimensions	7.83 x 6.22 x 1.85 inches (approx. 19.9 x 15.8 x 4.7 cm)
Date First Available	June 27, 2023

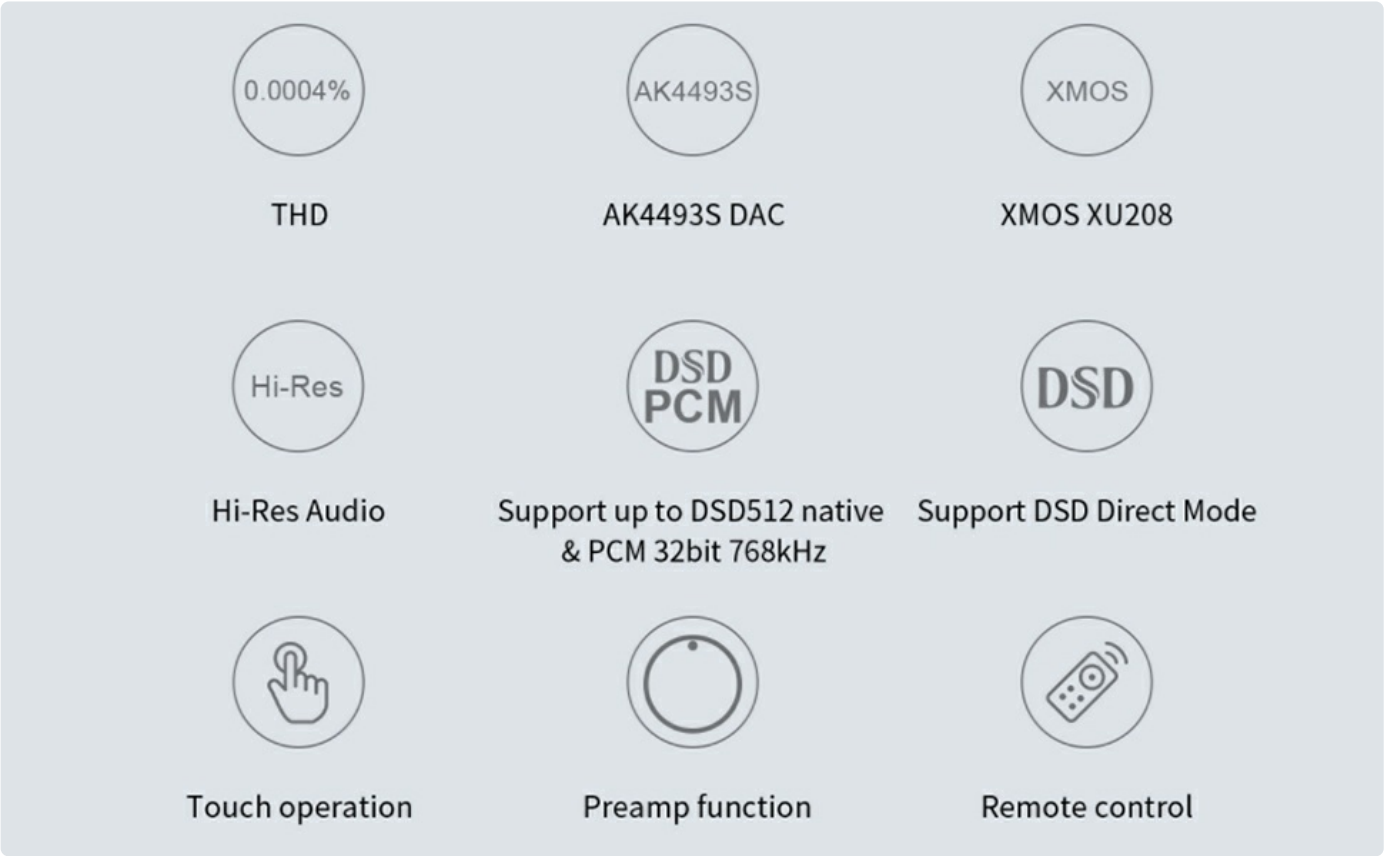


Image: Comparison table highlighting key differences between E30II, E30II Lite, and E30 models.

7. WARRANTY AND SUPPORT

For warranty information and technical support, please contact the manufacturer, Fanmusic (Topping), or your authorized dealer. Keep your purchase receipt as proof of purchase.

You can find more information about Fanmusic products and support on their official channels. For general inquiries, you may visit the [Fanmusic brand page on Amazon](#).

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

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