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› Fanmusic Topping E50 MQA Full DAC Instruction Manual

Fanmusic E50

Fanmusic Topping E50 MQA Full DAC Instruction Manual

Model: E50 | Brand: Fanmusic

1. PRODUCT OVERVIEW

The Topping E50 is a high-performance Digital-to-Analog Converter (DAC) and preamplifier designed to deliver exceptional audio quality. Featuring the ES9068AS DAC chip and XMOS XU216 processor, it supports high-resolution audio formats including MQA, DSD512, and PCM768kHz. Its versatile connectivity and ultra-low noise design make it suitable for various audio setups, from PC-HIFI systems to professional audio environments.

 ES9068AS	 Hi-Res Audio	 XMOS XU216
0.00009% THD+N	DSD PCM USB supports up to DSD512 Native & DSD256 DoP & PCM768kHz	 MQA MQA decode for USB, Coaxial and Optical inputs
RCA&TRS Selectable RCA & TRS output	 Ultra low noise preamp	 Remote control

Image: Front view of the Topping E50 MQA Full DAC, showcasing its compact design and display.

Key Features

- **ES9068AS DAC Chip:** Utilizes the latest high-performance DAC chip for realistic and transparent sound.
- **XMOS XU216 Processor:** Supports USB inputs up to DSD512 Native and PCM768kHz.
- **MQA Full Decoder:** Unfolds MQA files to deliver the highest possible sound quality.
- **Ultra-low Jitter:** CPLD processing optimizes digital signals for incredible jitter suppression.
- **Versatile Outputs:** Features selectable RCA and TRS balanced outputs.
- **5V Power Supply:** Easily powered via USB port of a PC, mobile phone charger, or power bank.
- **Auto On/Off Function:** Automatically turns on and selects input when a valid signal is detected, and turns off after 1 minute of invalid signal.

2. SETUP AND CONNECTIONS

2.1 Power Connection

The E50 requires a DC 5V power supply. Connect the provided USB-C cable to the 'POWER' port on the rear panel of the E50 and to a suitable 5V power adapter (not included), a PC USB port, or a power bank. Ensure the power source can provide at least 1A.

2.2 Input Connections

Connect your audio source to the E50 using one of the following input options:

- **USB Input:** Connect a computer, mobile phone, or tablet to the 'USB' port on the rear panel using a USB-A to USB-C cable. This port is used for both data transfer and power if the source provides sufficient current.
- **Optical Input (TOSLINK):** Connect devices such as CD players, digital broadcasting, or TVs to the 'OPTICAL' port.
- **Coaxial Input:** Connect devices with coaxial digital output to the 'COAXIAL' port.



Image: Rear panel of the Topping E50, showing USB, Optical, and Coaxial input ports, along with power input.

2.3 Output Connections

Connect the E50 to your amplifier or active speakers using the following output options:

- **RCA Output:** Use RCA cables to connect to single-ended inputs on your amplifier or active speakers.
- **TRS Balanced Output:** Use 6.35mm TRS cables to connect to balanced inputs on your amplifier or active speakers.

Note: The TRS output of the E50 does not support any adapter to convert to single-ended, nor can it be directly connected to headphones.

Selectable output ports

E50 has full balanced TRS output and single ended RCA output. You can choose "TRS only", "RCA only" or "TRS+RCA" output to meet different usages in the multiple systems.



Please note that the TRS output of E50 does not support any adapter to convert to single-ended, nor can it be directly connected to headphones.

Image: Rear panel of the Topping E50, highlighting the selectable RCA and TRS output ports.

3. OPERATING INSTRUCTIONS

3.1 Power On/Off and Standby

- **Power On:** When connected to power, the E50 enters standby mode. Press the multi-function touch button on the front panel or the power button on the remote control to turn it on.
- **Standby:** When the E50 is working, press and hold the multi-function touch button on the front panel to enter standby. You can also press the power button on the remote control.
- **Auto On/Off:** The E50 features an auto On/Off function. It will automatically turn on and set to the input with a valid signal. If the selected input signal is invalid for 1 minute, the E50 will automatically turn off.

3.2 Input Channel Switching

Press the multi-function touch button on the front panel to cycle through available input channels (USB, Optical, Coaxial). Alternatively, use the left/right arrow buttons on the remote control to switch inputs.

3.3 Output Mode Setting (DAC Mode / Pre-Amp Mode)

The E50 can operate in two output modes:

- **DAC Mode (m-d):** Volume is non-adjustable. The E50 acts as a pure DAC, outputting a fixed line level.
- **Pre-Amp Mode (m-P):** Volume is adjustable. The E50 functions as a DAC with a preamplifier, allowing volume control. This is the default mode.

To change the output mode, press and hold the multi-function touch button on the front panel for 3 seconds to enter the setup menu. Use the touch button to navigate to the output mode setting and select your desired mode.

3.4 Volume Control

In Pre-Amp Mode, you can adjust the volume using the up/down arrow buttons on the remote control. Long pressing the volume buttons will quickly adjust the volume. Be careful to protect your hearing.

3.5 Remote Control Functions

The E50 comes with a remote control for convenient operation. Functions include:

- Power On/Off (Standby)
- Volume Up/Down
- Switch to Previous/Next Input
- Mute
- Filter Setting
- Brightness Adjustment
- Output Channel Switching

Coaxial and Optical(Toslink) also has good performance

On the E50, the traditional optical and coaxial input not only supports 24bit192kHz PCM, but also supports Dop DSD64 and MQA rendering.

PCM

24bit192kHz

DSD

DSD64

 **MQA**

Renderer



Image: The remote control for the Topping E50, showing various buttons for power, volume, input selection, and settings.

3.6 Output Channel Switching

Double press the multi-function touch button on the front panel to switch between RCA output, TRS output, or both simultaneously. The display will indicate the active output.

3.7 Brightness Setting

You can adjust the display brightness using the remote control. Options typically include Low, Mid, and High. The display will turn off automatically after 30 seconds of no operation when the screen is off, only the current input is displayed.

4. SPECIFICATIONS

Feature	Description
DAC Chip	ES9068AS
USB Processor	XMOS XU216
USB Input Support	PCM 44.1kHz-768kHz/16bit-32bit, DSD DSD64-DSD512 (Native), DSD64-DSD256 (DoP), MQA Full Decode
Coaxial/Optical Input Support	PCM 44.1kHz-192kHz/16bit-24bit, DSD DSD64 (DoP), MQA Renderer Decode
Output	1x TRS (L+R), 1x RCA (L+R)
THD+N @ 1kHz (A-wt)	<0.00009% (TRS), <0.00010% (RCA)
Dynamic Range @ 1kHz (A-wt)	126dB (TRS), 124dB (RCA)
SNR @ 1kHz (A-wt)	126dB (TRS), 124dB (RCA)
Output Level	4Vrms @0dBFS (TRS), 2Vrms @0dBFS (RCA)
Power Input	DC5V/1A
Dimensions	12.5 x 13.1 x 2.6 cm (approx.)
Weight	465g (approx.)

5. TROUBLESHOOTING

Phenomenon	Cause	Solution
No sound	Wrong input selected Incorrect cable connections Sound is muted Audio source no output	Select the correct input Check and reconnect cables Turn up the audio Adjust or check the audio source
USB did not recognize	USB cable damaged PC's USB port damaged The OTG function of the phone is disabled	Check or change the USB cable Change to another USB port Enable OTG function on your phone
USB input, no sound	Inadequate power supply Too low volume on PC E50 is not selected as the default audio device on PC	Supply power to POWER port separately Adjust PC volume Set E50 as the default audio device in PC settings

Phenomenon	Cause	Solution
Bluetooth input, no sound	Cannot pair Bluetooth Weak signal due to long distance Too low volume on phone	Enter pairing mode first Take the device closer to E50 and connect again Adjust phone volume
Display DCIN ERR LOW/HIGH	Input voltage abnormal (low/high)	Connect DC5V power supply to POWER port
Display DAC ERR	DAC abnormal	Contact customer support

6. PRECAUTIONS

1. The output jacks shall not be grounded or short-circuited.
2. Do not keep the unit in a hot, humid environment or hit the unit strongly.
3. Opening the case instantly voids the warranty!
4. Indoor use only.
5. Topping accepts no liability for any loss or damage arising directly or indirectly from the failure of E50.
6. For improvement purposes, specifications are subject to changes without prior notice.

7. MEDIA GALLERY

Product Feature Highlights

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- Video: A detailed overview of the Topping E50's key features, including its DAC chip, MQA support, and various functionalities.
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- Video: An additional video highlighting the Topping E50 MQA Mini Hifi DAC, showcasing its compact size and audio capabilities.

Product Overview

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- Video: A general product overview video providing a visual introduction to the Topping E50.

8. WARRANTY AND SUPPORT

Fanmusic products are designed and manufactured to the highest quality standards. For warranty information and technical support, please refer to the official Fanmusic website or contact your authorized dealer. Keep your purchase receipt as proof of purchase for warranty claims.