

AOSHIDA DO200 MKII

SMSL DO200 MKII MQA Balanced DAC User Manual

Model: DO200 MKII

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1. INTRODUCTION

This manual provides detailed instructions for the proper setup, operation, and maintenance of your SMSL DO200 MKII MQA Balanced DAC. The DO200 MKII is a high-performance digital-to-analog converter designed to deliver exceptional audio quality for home desktop audio systems. It features dual ES9068AS D/A chips, XMOS XU-316 USB solution, and supports various high-resolution audio formats including DSD512 and PCM up to 768kHz. Please read this manual thoroughly before using the device to ensure optimal performance and longevity.

2. PRODUCT OVERVIEW

Key Features

- Dual ES9068AS D/A chips for low THD+N (-122dB).
- XMOS XU-316 true 32-bit USB solution, supporting DOP256 and native DSD512, PCM up to 768kHz.
- MQA decoding support for USB, Optical, Coaxial, and AES inputs, including MQA CD.
- Bluetooth 5.0 with LDAC 24bit/96kHz, APTX/HD, SBC, AAC codec support.
- High-resolution color IPS display with dimming and screen-off functions.
- Equipped with a full-featured remote control.
- High-quality gold-plated input and output connection terminals.
- Five OPA1612A high-end dual operational amplifiers and numerous audio-grade components.

Component Identification

Familiarize yourself with the front and rear panels of the SMSL DO200 MKII DAC.



Image Description: This image displays the SMSL DO200 MKII DAC from both front and rear perspectives, with key components labeled. The front panel shows the S.M.S.L logo, DO200 MKII model name, a function knob, and a display screen. The rear panel features various input and output ports: XLR Balanced output, Single-ended RCA output, AES/EBU input, I2S input, Coaxial input, USB input, Bluetooth input (with antenna port), Optical input, Power input, and a Power switch. An infrared receiving window is also indicated on the front.

Front Panel

- **Function Knob:** Used for navigation and selection within the menu system.
- **Display Screen:** High-resolution color IPS display showing current settings, input, sample rate, and volume level.
- **Infrared Receiving Window:** For remote control commands.

Rear Panel

- **XLR Balanced Output:** For connecting to balanced audio equipment.
- **Single-ended RCA Output:** For connecting to unbalanced audio equipment.
- **AES/EBU Input:** Professional digital audio input.

- **I2S Input:** High-performance digital audio input.
- **Coaxial Input:** Standard S/PDIF digital audio input.
- **USB Input:** USB-B port for connecting to a computer or other USB audio source.
- **Bluetooth Input:** Antenna connector for wireless Bluetooth audio reception.
- **Optical Input:** Standard S/PDIF digital audio input.
- **Power Input:** AC 100-240V power connector.
- **Power Switch:** To turn the unit on or off.

3. SETUP

Unpacking and Initial Inspection

Carefully remove the DO200 MKII from its packaging. Inspect the unit for any signs of damage during transit. Ensure all accessories are present:

- SMSL DO200 MKII Unit
- Remote Controller
- Power Cable
- USB Cable
- Bluetooth Antenna
- User Manual (this document)
- Warranty Card



Image Description: This image shows the SMSL DO200 MKII DAC along with its included accessories: a power cable, a USB cable, a remote controller, a Bluetooth antenna, a user manual, and a warranty card. The image also provides the dimensions of the DAC unit: 210mm width, 170mm depth, and 40mm height.

Connecting the Device

- Power Connection:** Connect the provided power cable to the AC IN port on the rear panel of the DO200 MKII and then to a suitable AC power outlet (100-240V).
- Bluetooth Antenna:** Screw the Bluetooth antenna onto the designated connector on the rear panel for optimal wireless performance.
- Audio Output:** Connect the DO200 MKII to your amplifier or active speakers using either the XLR balanced outputs or the RCA single-ended outputs. Ensure correct channel (Left/Right) connections.
- Audio Input:** Connect your audio source (e.g., computer, CD player, streamer) to the desired input port on the rear panel (USB, Optical, Coaxial, I2S, AES/EBU).
- Power On:** Flip the power switch on the rear panel to the 'ON' position. The display screen will illuminate.

Driver Installation (for Windows USB)

For Windows operating systems, a specific driver (XMos driver) is required for the USB input to function correctly. This driver is typically available on the SMSL official website. Follow these steps:

1. Download the latest XMOS USB driver for the DO200 MKII from the SMSL official support page.
2. Install the driver on your Windows computer before connecting the DAC via USB.
3. Once installed, connect the DO200 MKII to your computer using the provided USB cable.
4. Select the DO200 MKII as the audio output device in your computer's sound settings.

Note: macOS, Linux, and other operating systems typically do not require additional drivers for USB audio.

4. OPERATING INSTRUCTIONS

Basic Controls

- **Function Knob:** Rotate to adjust volume or navigate menu options. Press to confirm selections or enter menus.
- **Remote Control:** Provides full control over all functions, including input selection, volume, menu navigation, and filter settings.

Input Selection

Use the function knob or the remote control to cycle through available input sources (USB, Optical, Coaxial, I2S, AES/EBU, Bluetooth). The selected input will be displayed on the screen.

Volume Control

Rotate the function knob clockwise to increase volume and counter-clockwise to decrease. The current volume level is shown on the display. The remote control also has dedicated volume up/down buttons.

Menu Navigation

Press the function knob to enter the main menu. Rotate the knob to scroll through options. Press again to select an option. Use the remote control's navigation buttons for similar functionality.

MQA Decoding

The DO200 MKII supports MQA decoding on USB, Optical, Coaxial, and AES inputs. When playing MQA content, the display will indicate 'MQA' or 'MQA Studio' to confirm active decoding. It also supports MQA CD playback when connected to a compatible CD player via Coaxial or Optical.



DO200 MKII Supports MQA-CD

Both USB and SPDIF support MQA decoding function and MQA-CD

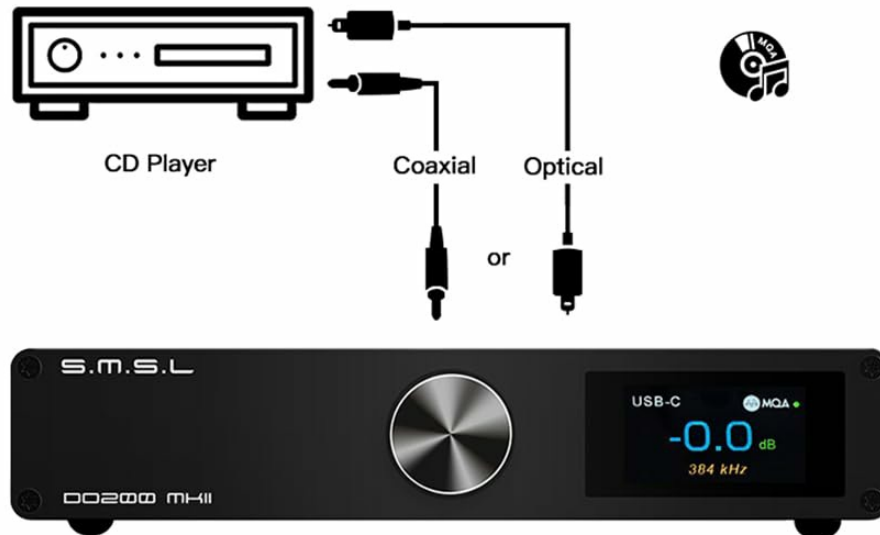


Image Description: This diagram illustrates how the SMSL DO200 MKII supports MQA-CD playback. It shows a CD player connected to the DAC via either a Coaxial or Optical cable. The DAC's display indicates 'MQA' and the sample rate, confirming MQA decoding functionality for both USB and S/PDIF inputs.

Bluetooth Operation

To use Bluetooth input:

1. Select 'Bluetooth' as the input source on the DO200 MKII.
2. On your mobile device or computer, search for Bluetooth devices and select 'SMSL DO200 MKII' to pair.
3. Once paired, audio from your device will be streamed to the DAC.

Bluetooth™ 5.0

Qualcomm's latest Bluetooth chip supports
LDAC 24bit/96kHz, APTX/HD, SBC, AAC



Image Description: This image highlights the Bluetooth 5.0 capability of the S.M.S.L DO200 MKII. It shows the DAC unit with its Bluetooth antenna, and text indicating support for Qualcomm's latest Bluetooth chip, LDAC 24bit/96kHz, APTX/HD, SBC, and AAC codecs.

PCM Filter Settings

The DO200 MKII offers various PCM filter options to tailor the sound to your preference. These filters include:

- Fast Linear
- Minimum Phase
- Slow Minimum

Access these settings via the menu. Experiment with different filters to find the one that best suits your listening environment and musical taste.

Function Introduction

PCM FILTER

- Fast Linear
- Minimum Phase
- Slow minimum

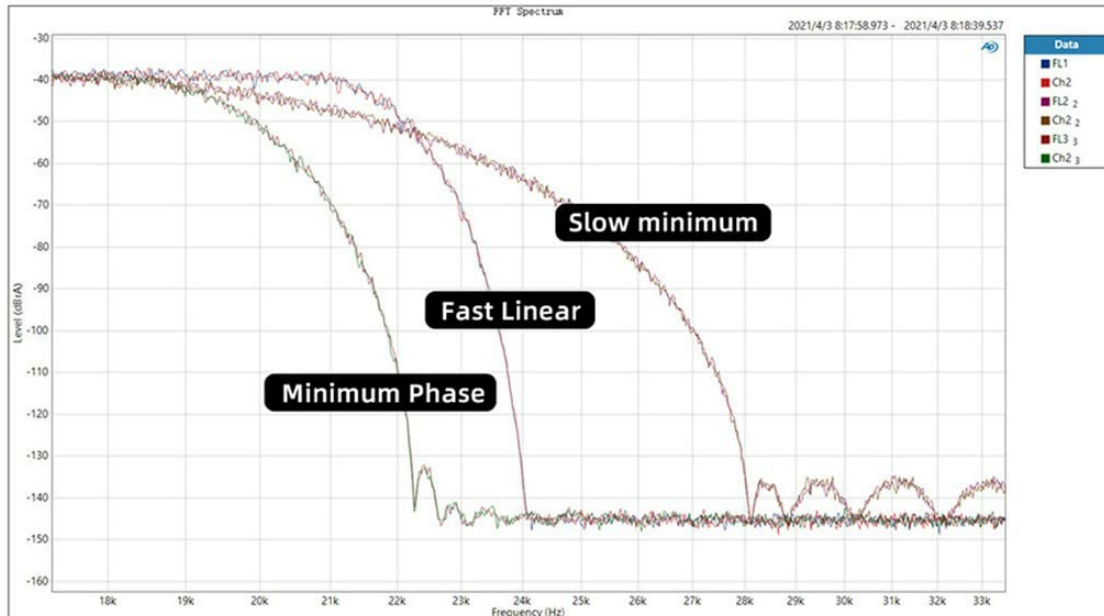


Image Description: This image illustrates the PCM filter options available on the SMSL DO200 MKII. It presents a frequency response graph showing the characteristics of 'Fast Linear', 'Minimum Phase', and 'Slow Minimum' filters, demonstrating their impact on the audio signal.

Display Settings

The IPS color display offers dimming and screen-off functions. These can be configured in the menu to reduce visual distraction, especially in a dark listening environment.

Tempered Glass Display Panel

Using tempered glass display panel, higher transmittance and longer service life. High resolution color IPS display with screen off function



Image Description: This image focuses on the tempered glass display panel of the SMSL DO200 MKII. Text highlights that the panel offers higher transmittance and longer service life, along with a high-resolution color IPS display with a screen-off function.

5. CONNECTIVITY

The SMSL DO200 MKII offers a comprehensive range of input and output options to integrate seamlessly into various audio setups.

Inputs

- **USB:** Connects to computers (Windows, macOS, Linux) for high-resolution audio playback. Supports DSD512 and PCM 768kHz.
- **Optical (TOSLINK):** For digital audio sources like CD players, TVs, or game consoles.
- **Coaxial (RCA):** Another S/PDIF digital input for various audio sources.
- **I2S:** A high-performance digital interface, often used with dedicated digital transports.
- **AES/EBU:** Professional digital audio input, typically found in studio equipment.
- **Bluetooth 5.0:** Wireless input for streaming audio from smartphones, tablets, and other Bluetooth-enabled devices. Supports LDAC, APTX/HD, SBC, AAC.

Outputs

- **XLR Balanced Output:** Provides a balanced analog audio signal, ideal for connecting to balanced amplifiers or active speakers for reduced noise and improved signal integrity over longer cable runs.
- **RCA Single-ended Output:** Standard unbalanced analog audio output for connecting to a wide range of amplifiers and audio systems.

6. SPECIFICATIONS

Feature	Specification
Product Dimensions	8.27 x 7.28 x 0.04 inches (210 x 185 x 1 mm)
Weight	2.65 Pounds (1.2 kg)
Model Number	DO200 MKII
Manufacturer	SMSL
Brand	AOSHIDA (Retailer)
Interface Type	USB
Number of Channels	1 (Stereo output)
DAC Chip	Dual ES9068AS
USB Processor	XMOS XU-316
PCM Support	Up to 32bit/768kHz
DSD Support	DSD512 (Native), DOP256
MQA Support	Full MQA decoding (USB, Optical, Coaxial, AES)
Bluetooth Version	5.0
Bluetooth Codecs	LDAC (24bit/96kHz), APTX/HD, SBC, AAC
THD+N	As low as -122dB
Operational Amplifiers	5x OPA1612A

7. TROUBLESHOOTING

If you encounter issues with your SMSL DO200 MKII, refer to the following common problems and solutions:

- **No Power:**
 - Ensure the power cable is securely connected to both the DAC and the power outlet.
 - Check that the power switch on the rear panel is in the 'ON' position.
 - Verify the power outlet is functional.

- **No Sound Output:**

- Confirm the correct input source is selected on the DO200 MKII.
- Check that the volume level is not set to minimum or muted.
- Ensure your amplifier/active speakers are powered on and set to the correct input.
- Verify all audio cables (XLR/RCA) are securely connected.
- For USB input on Windows, ensure the XMOS driver is installed and the DO200 MKII is selected as the default audio device.

- **Bluetooth Connection Issues:**

- Ensure the Bluetooth antenna is properly attached.
- Make sure the DO200 MKII is in Bluetooth input mode.
- Unpair and re-pair the device from your source device's Bluetooth settings.
- Reduce distance between the source device and the DAC, and remove any obstructions.
- If experiencing interruptions, try disabling Wi-Fi on the source device as suggested in some user reviews, especially if using a portable player.

- **Distorted or Intermittent Audio:**

- Check all cable connections for looseness or damage.
- Ensure the sample rate of your audio source matches the DAC's capabilities or is within its supported range.
- Try a different audio cable to rule out cable issues.
- If using USB, ensure the driver is correctly installed and updated.

If the problem persists after trying these solutions, please contact customer support.

8. MAINTENANCE

To ensure the longevity and optimal performance of your SMSL DO200 MKII DAC, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry, lint-free cloth to clean the exterior of the unit. Avoid using harsh chemicals, solvents, or abrasive cleaners, as these can damage the finish and display.
- **Ventilation:** Ensure the unit has adequate ventilation. Do not block the ventilation holes or place the unit in an enclosed space without proper airflow.
- **Environment:** Operate the DAC in a clean, dry environment, away from direct sunlight, excessive heat, humidity, and dust.
- **Power Off When Not in Use:** If the unit will not be used for an extended period, it is advisable to power it off and disconnect it from the mains power supply.
- **Cable Management:** Ensure audio and power cables are not excessively bent or strained, which can lead to damage over time.

9. WARRANTY AND SUPPORT

The SMSL DO200 MKII is manufactured by SMSL and distributed by AOSHIDA. Your product comes with a warranty, the terms of which are detailed on the included warranty card. Please retain your proof of purchase for warranty claims.

Warranty Information

- Refer to the warranty card included in the packaging for specific warranty duration and conditions.
- The warranty typically covers manufacturing defects under normal use.
- Damage caused by misuse, unauthorized modifications, or improper installation is generally not covered.

Customer Support

For technical assistance, warranty service, or further inquiries, please contact the retailer or the manufacturer's official support channels. Contact information can usually be found on the AOSHIDA or SMSL official websites.