

## AOSHIDA DO100

# SMSL DO100 USB DAC User Manual

High Resolution Balanced Audio Decoder

## 1. INTRODUCTION

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Thank you for purchasing the SMSL DO100 USB DAC. This device is a high-performance digital-to-analog converter designed to deliver exceptional audio fidelity. Featuring dual ES9038Q2M D/A chips, four OPA1612 op-amps, and Bluetooth 5.1 connectivity, the DO100 supports high-resolution audio formats including DSD512 and PCM up to 32bit/768kHz. This manual provides detailed instructions for setup, operation, and maintenance to ensure optimal performance and longevity of your device.

## 2. SAFETY INFORMATION

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- Do not disassemble the unit. Refer all servicing to qualified personnel.
- Do not expose the unit to rain or moisture.
- Avoid placing the unit near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Use only attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Ensure proper ventilation around the unit. Do not block any ventilation openings.
- Do not touch the internal components when the device is powered on, especially areas marked with "HIGH VOLTAGE".

## 3. PRODUCT OVERVIEW

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### 3.1 Front Panel

The front panel features a clear display, a remote window for infrared signals, and a multi-function knob for control.



Image: Front view of the S.M.S.L DO100 DAC, highlighting the digital display, remote sensor window, and the control knob.

### 3.2 Rear Panel

The rear panel provides various input and output connections, along with the power input.

## Bluetooth™ 5.1

Qualcomm latest Bluetooth chip  
Supports LDAC 24bit/96kHz,  
APT-X/HD, SBC, AAC



### Full-function remote control

DO100 is equipped with a new smsl remote control, which has better hand feel and quality, and supports full-function remote control

Image: Rear view of the SMSL DO100 DAC, showing the RCA and XLR balanced outputs, optical, coaxial, and USB inputs, Bluetooth antenna connection, and AC power inlet.

### 3.3 Remote Control

The DO100 comes with a full-function remote control for convenient operation.

# Balanced output

DO100 supports four input modes: USB input, Bluetooth input, optical fiber input, coaxial input and two output modes: single ended line output and balanced line output to meet different needs



Image: The SMSL DO100 DAC unit positioned next to its remote control, illustrating the compact size of both components.

## 4. SETUP

### 4.1 Unpacking

Carefully remove the SMSL DO100 DAC and all accessories from the packaging. Ensure the following items are present:

- SMSL DO100 DAC Unit
- Remote Control
- USB Cable (Type-C)
- Power Cable
- Bluetooth Antenna
- User Manual (this document)

### 4.2 Connections

Connect your audio sources and output devices to the SMSL DO100 as follows:

- **USB Input:** Connect your computer or other USB audio source to the USB-C input port on the rear panel using the provided USB cable.
- **Optical Input:** Connect devices such as CD players, game consoles, or TVs to the "OPTICAL" input using a TOSLINK optical cable.
- **Coaxial Input:** Connect devices with a coaxial digital output to the "COAXIAL" input.

- **Bluetooth Antenna:** Screw the provided Bluetooth antenna into the designated connector on the rear panel for optimal wireless performance.
- **RCA Output:** For single-ended analog output, connect the RCA L/R outputs to your amplifier or active speakers using RCA cables.
- **XLR Output:** For balanced analog output, connect the XLR L/R outputs to your balanced amplifier or active speakers using XLR cables.
- **Power Connection:** Connect the power cable to the AC power input (100-240V) on the rear panel and then to a wall outlet.



Image: Top and rear views of the S.M.S.L DO100 DAC, showing the layout of all input and output ports, including USB, Optical, Coaxial, RCA, and XLR connections.

### 4.3 Power On/Off

After all connections are made, press the multi-function knob on the front panel or the power button on the remote control to turn the unit on. Press again to turn it off.

## 5. OPERATING INSTRUCTIONS

### 5.1 Input Selection

Rotate the multi-function knob on the front panel to cycle through available inputs (USB, Optical, Coaxial, Bluetooth). The selected input will be displayed on the screen. Alternatively, use the input selection buttons on the remote control.

### 5.2 Volume Control

The multi-function knob also controls the output volume. Rotate it clockwise to increase volume and

counter-clockwise to decrease. The volume level will be shown on the display. The remote control also has dedicated volume up/down buttons.

### 5.3 Digital Filters

The SMSL DO100 features multiple digital filters to fine-tune the sound signature. These filters are subtle but can be adjusted to match your preference or speaker characteristics. Refer to the on-screen menu (accessed via the knob or remote) for filter options.



Image: A graph illustrating the frequency response curves of various digital filters available on the SMSL DO100, demonstrating their subtle effects on audio output.

### 5.4 Bluetooth Pairing

To pair a Bluetooth device:

1. Select Bluetooth as the input source on the DO100. The display will show "BT" and indicate pairing mode.
2. On your mobile device (smartphone, tablet, etc.), enable Bluetooth and search for available devices.
3. Select "SMSL DO100" from the list of devices.
4. Once connected, the display will show the Bluetooth codec being used (e.g., LDAC, aptX HD).



Image: The SMSL DO100 DAC on a desk, with a smartphone displaying a music player interface, illustrating its Bluetooth 5.1 connectivity for wireless audio streaming.

### 5.5 DSD Playback

The DO100 supports DSD512 via USB input and DOP64 via coaxial and optical inputs. For DSD playback via USB, you may need to install specific drivers on your computer. Please visit the SMSL official website for the latest drivers and software.

## 6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use liquid cleaners or aerosols.
- **Ventilation:** Ensure the ventilation openings are not blocked to prevent overheating.
- **Storage:** If storing the unit for an extended period, disconnect it from power and store it in a cool, dry place.

## 7. TROUBLESHOOTING

Problem	Possible Cause / Solution
No power	Check if the power cable is securely connected. Ensure the power outlet is functional.
No sound output	Verify input source selection. Check volume level. Ensure output cables (RCA/XLR) are correctly connected to your amplifier/speakers. Confirm amplifier/speakers are powered on and set to the correct input.
Distorted sound	Check source audio quality. Ensure cables are not damaged. Try different digital filters.
Bluetooth connection issues	Ensure the DO100 is in Bluetooth input mode and discoverable. Delete previous pairings on your device and try re-pairing. Move closer to the unit to reduce interference.
USB playback issues (e.g., dropouts)	Ensure correct drivers are installed for your operating system. Try a different USB cable. Adjust DLL (Digital Lock Loop) settings if available in the menu (as suggested by user reviews, setting DLL to 8 or greater can solve dropouts).

## 8. SPECIFICATIONS

The following table outlines the technical specifications of the SMSL DO100 DAC:

Feature	Detail
Model	SMSL DO100
Input	USB / Optical / Coaxial / Bluetooth
Output Amplitude (Volume Adjustable)	XLR: 4.0Vrms, RCA: 2.0Vrms
THD+N	0.00008% (-121dB)
Dynamic Range	XLR: 127dB, RCA: 125dB
SNR	XLR: 126dB, RCA: 124dB
Output Impedance	100Ω
USB Transmission	USB1.1, USB2.0 (Asynchronization)

Feature	Detail
Bit Depth	USB: 1bit, 16-32bit; Optical/Coaxial: 1bit, 16-24bit
Sampling Rate	USB: PCM 44.1-768kHz, DSD 2.8224-22.5792MHz (DSD512); Optical/Coaxial: PCM 44.1-192kHz, DSD DOP64
Bluetooth Specification	Bluetooth 5.1 (LDAC 24bit/96kHz, aptX-HD 24bit/48kHz, aptX, SBC, AAC)
Power Consumption	5W
Standby Power	<0.5W
Size (WxDxH)	150x128x39mm
Item Weight	1.32 pounds
Material	Metal and Glass

*Note: Specifications are subject to change without notice.*

## 9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official AOSHIDA or SMSL website, or contact your local dealer. Keep your purchase receipt as proof of purchase for warranty claims.

### Online Resources:

- Official User Guide (PDF): [Download PDF](#)
- AOSHIDA Store on Amazon: [Visit Store](#)