

## SMSL DS100

# SMSL DS100 MQA DAC Headphone Amplifier User Manual

Model: DS100

## 1. INTRODUCTION

The SMSL DS100 is a high-performance Digital-to-Analog Converter (DAC) and Headphone Amplifier designed to deliver exceptional audio quality. It features multiple input options including USB, Optical, and Coaxial, and supports high-resolution audio formats such as MQA, MQA-CD, PCM up to 32bit/768kHz, and DSD256. Equipped with a Cirrus Logic CS43131 DAC chip and an XMOS XU-316 USB interface, the DS100 provides a clear and immersive listening experience for various headphones and audio setups.



Image: The SMSL DS100 unit showcasing its compact design and key features like Hi-Res Audio, MQA, MQA-CD, CS43131 chip, XMOS XU-316, DSD256, PCM 768kHz/32bit, 6.35mm & 4.4mm headphone jacks, -115dB distortion, and CNC Aluminum Alloy Housing.

## 2. SAFETY INFORMATION

- Do not disassemble the unit. Unauthorized repairs will void the warranty.
- Do not expose the unit to rain or moisture.
- Avoid placing the unit near heat sources or in direct sunlight.
- Ensure proper ventilation around the unit to prevent overheating.

- Use only the provided USB cable for connection.
- Always handle the unit with care to prevent physical damage.

### 3. PACKAGE CONTENTS

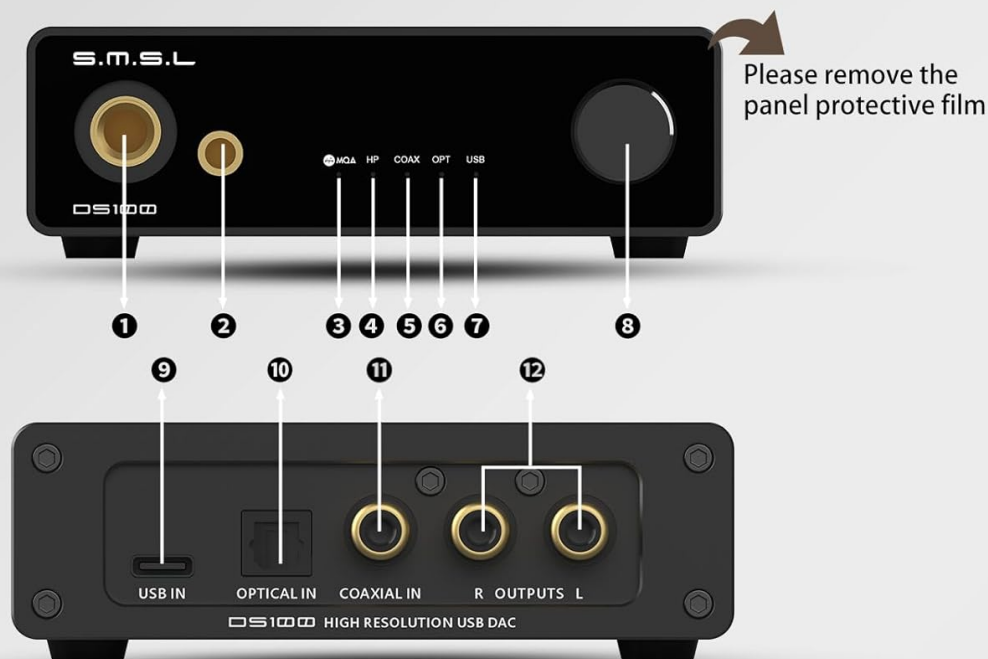
Please check that all items are present in the package:

- SMSL DS100 DAC Headphone Amplifier
- USB Cable
- Instruction Manual (this document)
- Warranty Card

### 4. PRODUCT OVERVIEW

Familiarize yourself with the various components and connections of your DS100 unit.

## Product Parameters



- |  |                          |                       |
|--|--------------------------|-----------------------|
| ① 6.35mm headphone output                  | ② 4.4mm headphone output | ③ MQA Indicator light |
| ④ HP (headphone amplifier) indicator light | ⑤ Coaxial input light    | ⑥ Optical input light |
| ⑦ USB input light                          | ⑧ Knob                   | ⑨ USB Input           |
| ⑩ Optical input                            | ⑪ Coaxial input          | ⑫ RCA output          |

When adjusting the volume, the four LED lights for HP, COAX, OPT, and USB will be used to indicate the current volume level.

## Front Panel

1. **6.35mm Headphone Output:** Standard single-ended headphone jack.
2. **4.4mm Headphone Output:** Balanced headphone jack for enhanced audio performance.
3. **MQA Indicator Light:** Illuminates when MQA content is detected and decoded.
4. **HP (Headphone Amplifier) Indicator Light:** Indicates headphone output is active.
5. **Coaxial Input Light:** Illuminates when Coaxial input is selected.
6. **Optical Input Light:** Illuminates when Optical input is selected.
7. **USB Input Light:** Illuminates when USB input is selected.
8. **Knob:** Multi-function control for volume adjustment and input selection. Press to cycle inputs, rotate to adjust volume.

## Rear Panel

9. **USB Input:** USB-C port for connecting to a computer or other USB audio source.
10. **Optical Input:** Optical (Toslink) digital audio input.
11. **Coaxial Input:** Coaxial (RCA) digital audio input.
12. **RCA Output (L/R):** Analog line-level outputs for connecting to an external amplifier or powered speakers.

## 5. SETUP

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### 5.1 Power Connection

Connect the provided USB cable to the USB IN port (9) on the rear panel of the DS100 and to a suitable USB power source (e.g., a computer USB port or a USB power adapter). The unit will power on automatically.

### 5.2 Audio Source Connection

- **USB Input:** Connect your computer, smartphone, or other USB audio source to the USB IN port (9) using the USB cable.
- **Optical Input:** Connect an optical cable from your audio source (e.g., TV, CD player) to the Optical IN port (10).
- **Coaxial Input:** Connect a coaxial cable from your audio source (e.g., CD player, media player) to the Coaxial IN port (11).

### 5.3 Output Connection

- **Headphones:** Plug your headphones into either the 6.35mm headphone output (1) or the 4.4mm balanced headphone output (2) on the front panel.
- **External Amplifier/Powered Speakers:** Connect RCA cables from the RCA OUTPUTS (12) on the rear panel to your amplifier or powered speakers.



Image: The SMSL DS100 connected to a laptop via USB and to a speaker, demonstrating a typical desktop audio setup.

## 5.4 Driver Installation (Windows Only)

For Windows operating systems (7/8/8.1/10/11), a driver is required for USB audio playback. Mac OSX 10.6+, Linux, and Android devices are driverless.

- Visit the official SMSL website.
- Navigate to the Support section.
- Locate and download the driver for the DS100 model.
- Follow the on-screen instructions to install the driver.

**Note:** A protective film may be present on the DS100 panel. Please remove it before use.

## 6. OPERATING INSTRUCTIONS

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### 6.1 Power On/Off

The DS100 powers on automatically when connected to a USB power source. To power off, disconnect the USB cable.

### 6.2 Input Selection

Press the **Knob** (8) on the front panel to cycle through the available input sources: USB, Optical, and Coaxial. The corresponding indicator light (7, 6, or 5) will illuminate to show the active input.

### 6.3 Volume Control

Rotate the **Knob** (8) clockwise to increase volume and counter-clockwise to decrease volume. The four LED lights (MQA, HP, COAX, OPT, USB) will be used to indicate the current volume level, providing a visual representation of the setting.

### 6.4 Output Mode Selection (Headphone vs. Line Out)

Upon initial power-up, the unit may default to RCA line output. To switch to headphone output, press and hold the **Knob** (8) for several seconds after powering on. There are no explicit visual indicators for this switch other than audio playing through the selected output.

## 4.4mm Balanced/6.35mm Single-Ended Headphone Jack

There is a 6.35mm single-ended headphone jack and a 4.4mm balanced headphone jack on the front of the panel. These two jacks can provide powerful driving force at the same time and are suitable for different types of headphones.

SNR: 127dB  
Dynamic range: 127dB



Image: Close-up of the SMSL DS100 front panel, highlighting the 6.35mm single-ended and 4.4mm balanced headphone output jacks.

### 6.5 MQA/MQA-CD Playback

The DS100 supports MQA decoding and MQA-CD playback. When playing MQA content, the MQA indicator light (3) will illuminate. Ensure your audio source is configured to output MQA for proper decoding.



Image: The SMSL DS100 with text indicating support for MQA decoding and MQA-CD, emphasizing high-fidelity audio reproduction.

## 7. MAINTENANCE

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- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid using liquid cleaners or solvents.
- **Storage:** When not in use for extended periods, store the unit in a cool, dry place away from direct sunlight and extreme temperatures.
- **Cable Care:** Ensure all cables are connected securely and are not bent or crimped, which could damage them.

## 8. TROUBLESHOOTING

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- **No Sound:**
  - Check all cable connections (USB, audio inputs, headphone/RCA outputs).
  - Ensure the correct input source is selected on the DS100.
  - Verify the volume level on the DS100 and your audio source.
  - If using headphones, ensure the output mode is set to headphones (refer to section 6.4).
  - For Windows users, confirm the USB driver is correctly installed and the DS100 is selected as the default audio output device.
- **Distorted Sound:**
  - Reduce the volume level on both the DS100 and the audio source.
  - Check for damaged cables.
  - Ensure the audio file or stream is not corrupted.
- **Unit Not Powering On:**
  - Verify the USB cable is securely connected to a working USB power source.
  - Try a different USB port or power adapter.

## 9. SPECIFICATIONS

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# Product Information



Input	Optical/Coaxial/USB	USB Compatibility	Windows 7/8/8.1/10/11(need Drivers) Mac OSX 10.6+、Linux(Driverless)、Android
Output Level	2Vrms	Power Consumption	<1W
THD+N	0.00017%(-115dB)	Standby Power	<0.1W
Dynamic Range	127dB	Size	101.6x 30.5x89mm(WxHxD)
SNR	127dB	Weight	180g/0.40lbs
Sampling Rate and Bit Depth	USB	PCM 44.1~768kHz(32bit)	
		DSD 2.8224~11.2896MHz(1bit)	
		DoP 256	
	Optical/Coaxial	PCM 44.1~192kHz(24bit)	
		DoP 64	

Image: Table detailing the SMSL DS100's product information, including dimensions, input/output specifications, and performance metrics.

Feature	Specification
Input	Optical / Coaxial / USB
Output Level	2Vrms
THD+N	0.00017% (-115dB)
Dynamic Range	127dB
SNR	127dB
USB Compatibility	Windows 7/8/8.1/10/11 (driver required), Mac OSX 10.6+, Linux (Driverless), Android (no driver required)
Power Consumption	<1W
Standby Power	<0.1W




Feature	Specification
Size (WxHxD)	101.6 x 30.5 x 89mm (3.5"L x 1.2"W)
Weight	180g / 0.40lbs
USB Sampling Rate & Bit Depth	PCM 44.1-768kHz (32bit), DSD 2.8224-11.2896MHz (1bit) DoP 256
Optical/Coaxial Sampling Rate & Bit Depth	PCM 44.1-192kHz (24bit) DoP 64

## 10. WARRANTY AND SUPPORT




The SMSL DS100 comes with a warranty as specified on the included warranty card. Please refer to the card for details regarding coverage period and terms.

For technical support, driver downloads, or further inquiries, please visit the official SMSL website or contact their customer service department. Keep your purchase receipt as proof of purchase for warranty claims.

### Related Documents - DS100

	<p><a href="#">SMSL DO300EX DAC and Headphone Amplifier User Manual</a></p> <p>User manual for the SMSL DO300EX Digital-to-Analog Converter (DAC) and Headphone Amplifier, covering features, specifications, setup, operation, and MQA playback.</p>
	<p><a href="#">SMSL AL200 User Manual: High Resolution Power Amplifier</a></p> <p>Comprehensive user manual for the SMSL AL200 High Resolution Power Amplifier. This guide details safety precautions, warranty terms, product features, technical specifications, remote control operation, display interface, and MQA playback instructions.</p>
	<p><a href="#">SMSL PL100 CD Player User Manual</a></p> <p>Comprehensive user manual for the SMSL PL100 CD Player, covering features, specifications, safety, warranty, and operating instructions.</p>



	<p><a href="#">SMSL PO100 PRO User Manual</a></p> <p>User manual for the SMSL PO100 PRO, a digital to analog audio converter with MQA decoding, XMOS XU316 USB solution, and various output options including I2S, Optical, and Coaxial.</p>
	<p><a href="#">SMSL C200 Pro Hi-Res DAC &amp; Headphone Amplifier User Manual</a></p> <p>Comprehensive user manual for the SMSL C200 Pro Hi-Res DAC and Headphone Amplifier, covering features, specifications, operation, safety, warranty, and MQA playback.</p>
	<p><a href="#">SMSL AS400 User Manual: High-Resolution Audio Amplifier</a></p> <p>This user manual provides comprehensive information for the SMSL AS400 high-resolution audio amplifier, covering safety guidelines, warranty terms, product features, technical specifications, operation instructions, connectivity options including HDMI ARC, and details on MQA audio playback.</p>

Documents - SMSL – DS100



[\[pdf\]](#) User Manual Installation Guide Specifications Warranty

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