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> SMSL DO100PRO Hi-res Digital Audio DAC User Manual

TONGYOR DO100PRO

SMSL DO100PRO Digital Audio DAC User Manual

Model: DO100PRO | Brand: TONGYOR

1. INTRODUCTION

The SMSL DO100PRO is a high-resolution digital audio DAC designed for superior audio performance. It features dual ES9039Q2M DAC chips, XLR balanced and RCA single-ended outputs, and multiple input options including Bluetooth, USB, Optical, and Coaxial. This manual provides detailed instructions for setting up, operating, and maintaining your DO100PRO to ensure optimal performance and longevity.



Image: The SMSL DO100PRO Digital Audio Converter (DAC) shown with its included remote control. The device is compact and features a digital display.

2. KEY FEATURES

- **High-Resolution Audio:** Supports MQA decoding and MQA-CD, PCM up to 32bit/768kHz, and DSD512.
- **Premium DAC Chips:** Equipped with two ESS ES9039Q2M high-end DAC chips for exceptional audio fidelity.
- **Advanced Bluetooth Connectivity:** Features Qualcomm's latest Bluetooth chip, supporting LDAC 24bit/96kHz, APTX-HD, SBC, and AAC codecs.
- **Versatile Inputs:** Includes USB (XMOS XU-316), Optical, Coaxial, and HDMI (ARC) inputs.
- **Balanced and Single-Ended Outputs:** Provides XLR balanced and RCA single-ended line outputs.
- **Low-Noise Power Supply:** Built-in self-developed low-noise switching power supply and multiple analog circuit low-noise power supplies.
- **High-Quality Components:** Utilizes 6 high-end dual op-amps OPA1612 and other audio-grade components.

- **Full-Featured Remote Control:** Comes with a comprehensive remote for convenient operation.

3. PACKAGE CONTENTS

Please check the package contents upon unboxing to ensure all items are present:

- SMSL DO100PRO Unit
- AC Power Cable
- USB Cable
- Remote Control (batteries not included)
- Bluetooth Antenna
- User Manual (this document)
- Warranty Card

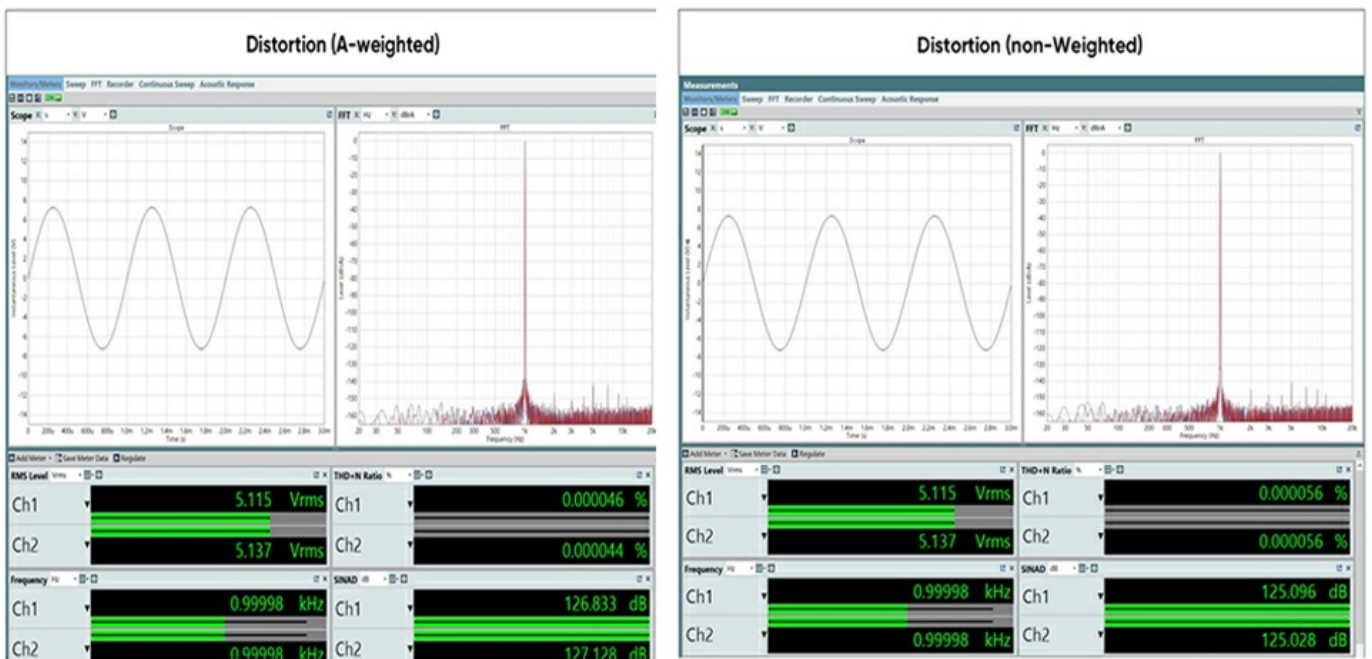


Image: An illustration showing all items included in the SMSL DO100PRO package: the DAC unit, AC power cable, USB cable, remote control, Bluetooth antenna, user manual, and warranty card.

4. SETUP AND CONNECTIONS

4.1 Front and Rear Panel Overview



MAX OUTPUT LEVEL

5Vrms

4Vrms

4V and 5V output level adjustment, different level output will have different dynamics, better compatibility!

Note: The switch on the bottom of the machine can switch the output mode, 4V mode and 5V mode.

Image: Detailed diagram of the SMSL DO100PRO's front and rear panels, indicating the location of the display screen, MQA/DSD indicators, knob, remote window, RCA/XLR outputs, optical/coaxial/HDMI(ARC) inputs, USB input, Bluetooth input, and power switch/AC input.

Front Panel: Display Screen, MQA indicator light, Standby indicator light, Knob (volume/menu navigation), Remote window, DSD indicator light.

Rear Panel: RCA output, XLR output, Optical input, Coaxial input, HDMI(ARC) input, USB input, Bluetooth input, Power Switch, AC input.

4.2 Connecting to Audio Sources

The DO100PRO offers various input options for connecting to your audio sources:

- **USB Input:** Connect to a computer (PC/Mac) or game console (PS5/Switch) using the provided USB cable. For game consoles, it may be necessary to switch to USB 1.1 mode for compatibility.
- **Optical/Coaxial Input:** Connect to devices such as TVs, CD/DVD players, or other digital audio sources using optical or coaxial cables.
- **HDMI (ARC) Input:** Connect to an ARC-compatible TV using an HDMI cable. This allows audio from your TV or external devices connected to your TV to be played through the DO100PRO. Ensure your TV's HDMI port supports ARC. If audio synchronization issues occur, try disconnecting and reconnecting the HDMI cable, or power cycling the DO100PRO. *Note: Do not connect to a TV set-top box's HDMI(ARC) interface.*
- **Bluetooth Input:** Pair your smartphone, tablet, or other Bluetooth-enabled device wirelessly.

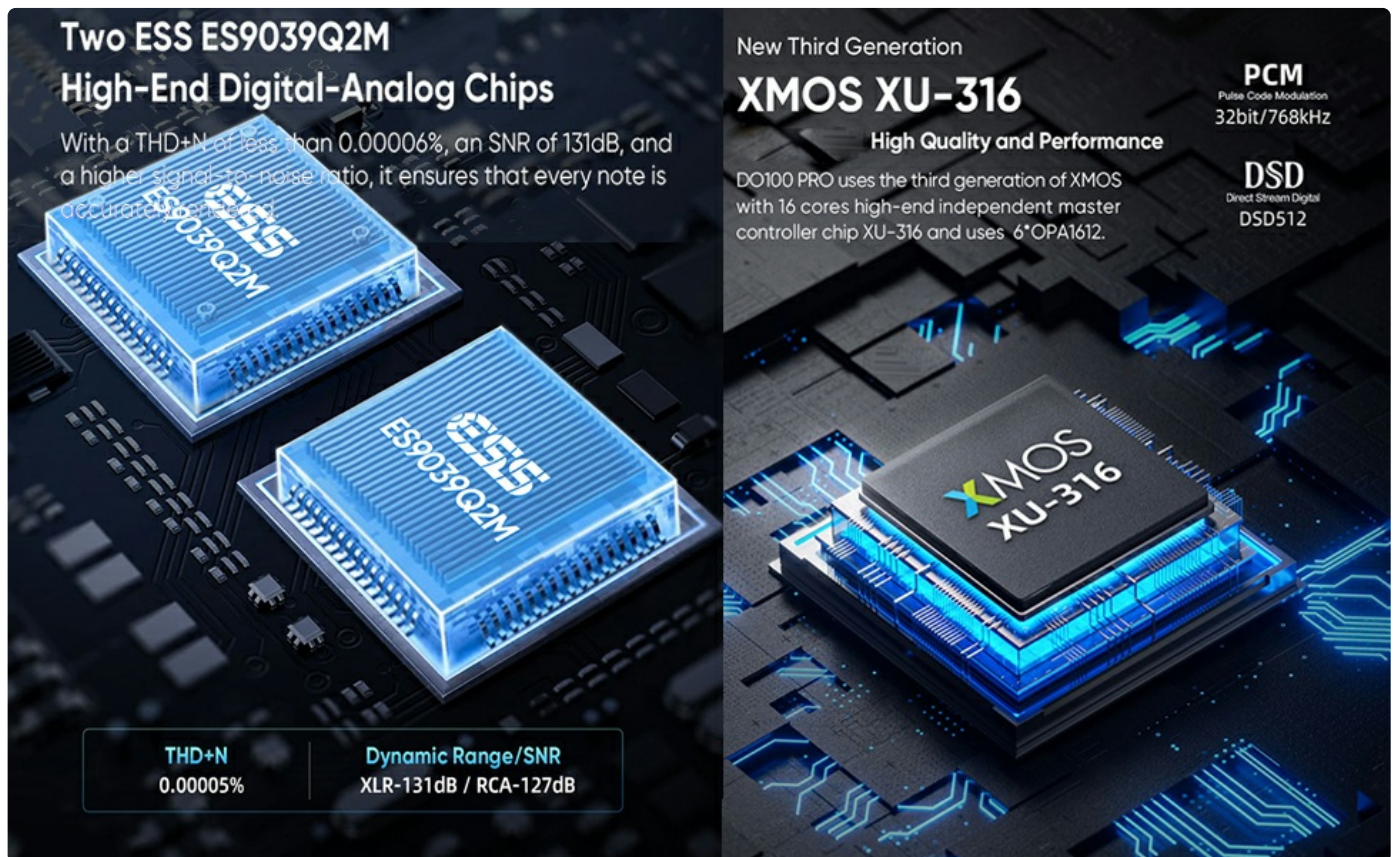


Image: A diagram illustrating the various input and output connections on the rear panel of the SMSL DO100PRO, including Bluetooth, Optical/Coaxial/HDMI(ARC), USB, and RCA/XLR outputs.

HDMI (ARC) Audio Return

Support HDMI (ARC) audio return function, only need a HDMI cable, connect DO100 PRO and TV, can realize the synchronization of audio and video.



TV

HDMI(ARC)



DO100 PRO



Active Speakers

Due to the diversity of HDMI ARC interface protocols, if the DO100PRO HDMI (ARC) input is not recognized during use when the connection between the DO100PRO HDMI (ARC) input and the TV is disconnected, turn off the DO100PRO and turn it on again.

(*Please do not connect the HDMI(ARC) interface of the TV set-top box)

Image: A visual guide demonstrating how to connect the SMSL DO100PRO to a TV via HDMI (ARC) for audio return, showing the TV, DO100PRO, and active speakers.



Supports Game Console Connectivity

DO100PRO can choose between two USB modes, USB1.1 and USB2.0. USB1.1 drive-free mode supports a wide range of game consoles, such as Sony PS5 and Nintendo Switch.

*USB1.1 only supports 24bit/96kHz max.

*After switching between U2.0 mode and U1.1 mode, the machine needs to be restarted to take effect.



Sony PS5/PS4



Nintendo Switch

Image: A user playing a video game with the SMSL DO100PRO connected, illustrating its compatibility with game consoles like Sony PS5/PS4 and Nintendo Switch via USB.



Bluetooth 5.1

Qualcomm's latest Bluetooth 5.1 chip supports LDAC 24bit/96kHz, APTX/HD, SBC, AAC.

LDAC

APTX-HD

APTX

SBC

AAC

Image: A smartphone wirelessly connected to the SMSL DO100PRO via Bluetooth 5.1, highlighting support for LDAC, APTX-HD, APTX, SBC, and AAC codecs.

4.3 Connecting to Audio Outputs

The DO100PRO provides both balanced and single-ended analog outputs:

- **XLR Balanced Output:** For connecting to professional audio equipment or amplifiers with XLR inputs.
- **RCA Single-Ended Output:** For connecting to standard audio amplifiers or active speakers with RCA inputs.

Output Level Adjustment: The DO100PRO supports 4V and 5V output level adjustment. This switch is located on the bottom of the unit. Adjusting the output level can improve compatibility with different amplifiers and active speakers.

Retro Style Knob

Retro knob design for a more comfortable touch.



Floating Display Window

Fully laminated tempered glass, floating display.



High Quality Interfaces

High-quality gold-plated input and output connectors.



Image: Close-up view of the S.M.S.L DO100PRO's high-quality gold-plated input and output connectors, along with an illustration of the 4V/5V output level adjustment switch located on the bottom of the device.

4.4 Power Connection

Connect the supplied AC power cable to the AC input on the rear panel of the DO100PRO, then plug the other end into a standard wall outlet. Use the power switch on the rear panel to turn the unit on or off.

5. OPERATING INSTRUCTIONS

5.1 Front Panel Controls

- **Knob:** Rotate the knob to adjust volume. Press the knob to enter the menu or confirm selections.
- **Display Screen:** Shows current input, sample rate, and other operational information.
- **MQA/DSD Indicator Lights:** Illuminate to indicate MQA or DSD audio playback.

Retro Style Knob

Retro knob design for a more comfortable touch.



Floating Display Window

Fully laminated tempered glass, floating display.



High Quality Interfaces

High-quality gold-plated input and output connectors.



Image: Close-up views of the S.M.S.L DO100PRO's retro-style knob for comfortable tactile feedback and the fully laminated tempered glass floating display window.

5.2 Remote Control Functions

The included remote control provides full functionality for convenient operation:

Equipped with full-function remote control

Equipped with SMSL new remote control, better feel, better quality, support full-function remote control.



Image: A diagram of the SMSL DO100PRO's remote control, showing buttons for Power ON/OFF, Up, Menu/OK, Next level menu, Return, Input select, Mute, FN (Function), Volume +, and Volume -.

- **Power ON/OFF:** Turns the unit on or off.
- **Input Select:** Cycles through available input sources (USB, Optical, Coaxial, HDMI ARC, Bluetooth).
- **Volume +/-:** Adjusts the output volume.
- **Mute:** Mutes or unmutes the audio output.
- **Menu/OK:** Enters the menu or confirms a selection.
- **Navigation Buttons (Up, Down, Left, Right):** Navigate through menu options.
- **Return:** Goes back to the previous menu or screen.
- **FN (Function):** Reserved for future functions or specific settings.

6. SPECIFICATIONS

Feature	Specification
Model Number	DO100PRO
DAC Chip	2 x ESS ES9039Q2M
USB Processor	XMOS XU-316
PCM Support	Up to 32bit/768kHz
DSD Support	Up to DSD512
MQA Support	MQA decoding, MQA-CD (USB, Optical, Coaxial)
Bluetooth Version	Qualcomm Bluetooth 5.1
Bluetooth Codecs	LDAC (24bit/96kHz), APTX-HD, SBC, AAC
Inputs	USB, Optical, Coaxial, HDMI (ARC), Bluetooth
Outputs	XLR Balanced, RCA Single-ended
Output Level	4Vrms / 5Vrms (switchable)
Op-Amps	6 x OPA1612
Dimensions	11.93 x 9.33 x 3.23 inches
Weight	3.35 Pounds
Manufacturer	SMSL
Country of Origin	China



USB, optical, and coaxial input interfaces all support full MQA decoding, up to 8x expansion, and MQA-CD.

Note: Bluetooth and HDMI (ARC) ports excluded

Coaxial



Optical



USB



ESS DAC chip
ES9039Q2M*2



Third Generation
XMOS XU-316



Dual Op Amp
OPA1612*6



DSD512
32bit/768kHz



Bluetooth 5.1



Support for game
consoles (USB1.1 mode)



Supports TV
HDMI(ARC)



Supports
MQA decoding

Image: Detailed view of the internal components of the SMSL DO100PRO, highlighting the two ES9039Q2M high-end digital-analog chips and the new third-generation XMOS XU-316 processor, emphasizing high quality and performance.

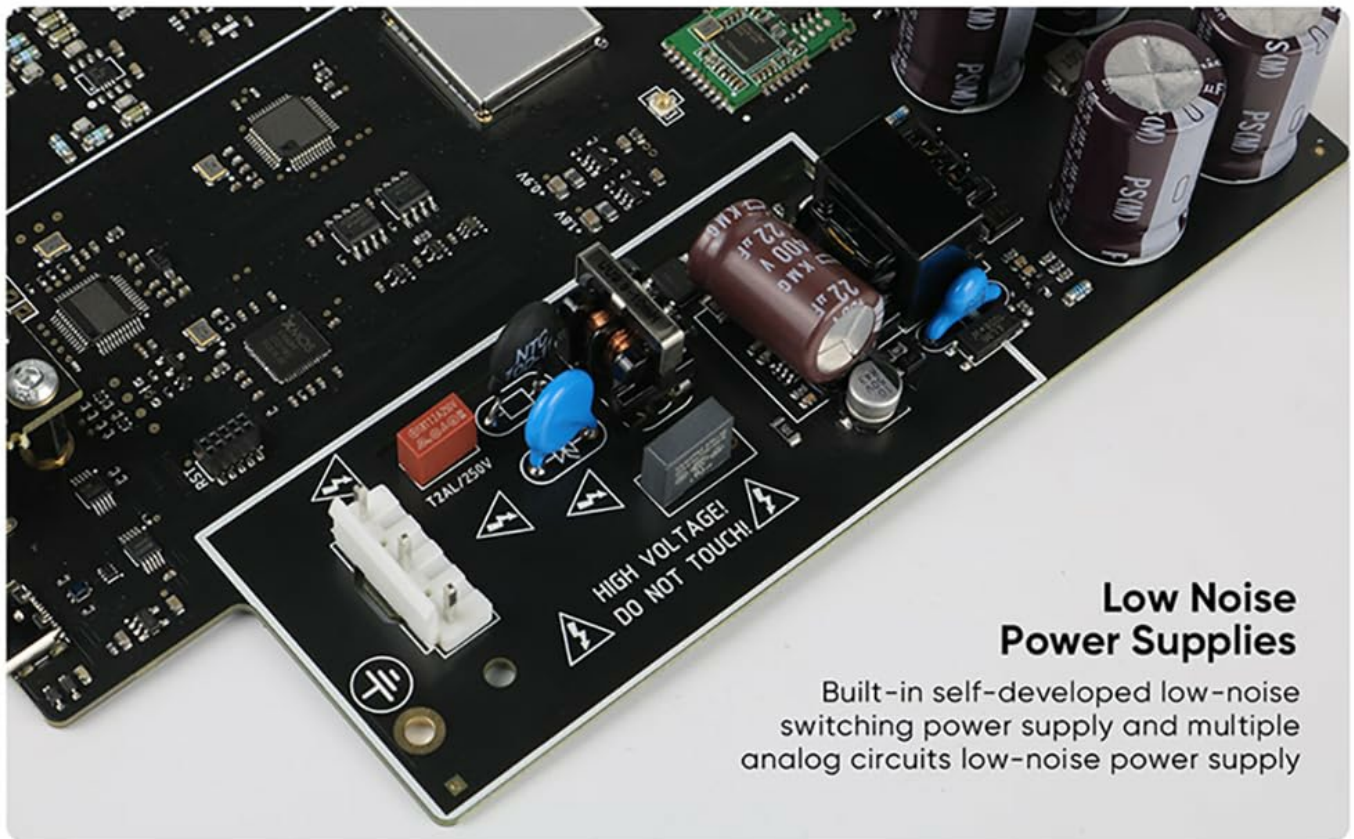


Image: Internal view of the SMSL DO100PRO circuit board, showcasing the built-in low-noise power supplies, the Qualcomm QCC5125 Bluetooth chip, and the high-end dual op-amps OPA1612.

7. TROUBLESHOOTING

Problem	Possible Cause / Solution
No power	Ensure the power cable is securely connected to both the unit and the wall outlet. Check the power switch on the rear panel is in the ON position.

Problem	Possible Cause / Solution
No audio output	<ul style="list-style-type: none"> ◦ Verify the correct input source is selected on the DO100PRO. ◦ Check all audio cables (XLR/RCA) are securely connected to your amplifier/speakers. ◦ Ensure the volume is not muted or set too low. ◦ Confirm your amplifier/speakers are powered on and set to the correct input.
No sound from HDMI (ARC)	<ul style="list-style-type: none"> ◦ Ensure your TV's HDMI port supports ARC and is enabled in TV settings. ◦ Try power cycling both the TV and the DO100PRO. ◦ Ensure the HDMI cable is connected to the correct HDMI (ARC) port on both devices.
USB audio issues (e.g., no sound, low sample rate)	<ul style="list-style-type: none"> ◦ For game consoles or certain operating systems, try switching the DO100PRO to USB 1.1 mode (refer to device menu or specific instructions). ◦ Ensure necessary drivers are installed on your computer (if required for your OS). ◦ Check the audio output settings on your computer/source device.
Bluetooth connection issues	<ul style="list-style-type: none"> ◦ Ensure the Bluetooth antenna is securely attached. ◦ Make sure the DO100PRO is in Bluetooth input mode. ◦ Unpair and re-pair the device from your source's Bluetooth settings. ◦ Reduce the distance between the DO100PRO and the Bluetooth source.

8. MAINTENANCE AND CARE

To ensure the longevity and optimal performance of your SMSL DO100PRO, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Avoid using abrasive cleaners, solvents, or chemical sprays, as they may damage the finish.
- **Placement:** Place the unit on a stable, flat surface with adequate ventilation. Avoid placing it in direct sunlight, near heat sources, or in areas with high humidity or dust.
- **Ventilation:** Do not block the ventilation openings. Proper airflow is essential to prevent overheating.
- **Power Off:** Always power off the unit and disconnect it from the power outlet before cleaning or if it will not be used for an extended period.
- **Handling:** Handle the unit with care. Avoid dropping it or subjecting it to strong impacts.

9. WARRANTY AND SUPPORT

The SMSL DO100PRO comes with a manufacturer's warranty. Please refer to the included warranty card for specific terms and conditions, including warranty period and coverage details.

For technical support, troubleshooting assistance, or warranty claims, please contact TONGYOR customer service. We are committed to providing excellent support and will assist you with any questions or concerns.

Customer Service Contact: Please refer to the contact information provided on your warranty card or the official

TONGYOR website for the most up-to-date support channels.



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