

S.M.S.L AO300

S.M.S.L AO300 Power Amplifier DAC Headphone Amp User Manual

Model: AO300

1. INTRODUCTION

The S.M.S.L AO300 is a versatile audio device combining a power amplifier, DAC (Digital-to-Analog Converter), and headphone amplifier. It features a 2.1-channel active audio system with subwoofer output, delivering up to 165W x 165W output power. Equipped with high-performance chips like the MA5332MS amplifier chip, CS43131 DAC chip, and XMOS XU-316 USB processor, the AO300 supports high-resolution audio formats and multiple input options for a comprehensive audio experience.

2. KEY FEATURES

- **High Performance DAC AMP Chip:** Utilizes MA5332MS power amplifier chip, CS43131 decoding headphone amplifier chip, and NJW1194 Volume Control Chip.
- **2.1 Channel Audio Amplifier System:** Provides 165W x 165W output with subwoofer support. Supports high-resolution audio codecs like LDAC, APTX/HD, SBC, and AAC for wireless playback.
- **XMOS MX316 USB Processor:** Supports PCM up to 32bit/768kHz and DSD up to DSD256 for high-fidelity USB audio.
- **8 EQ Sound Mode Options:** Includes Direct, Super Bass, Tone, Rock, SDB, Soft, Bass, Clear, and 5 filters for audio customization.
- **Multiple Inputs & Outputs:** USB, Optical, Coaxial, HDMI ARC, Aux inputs. Outputs include 4.4mm and 6.35mm headphone jacks, and speaker outputs.
- **HDMI (ARC) Function:** Supports Audio Return Channel for simplified TV connection and synchronized audio/video.
- **MQA/MQA-CD Support:** For high-quality audio playback.

Infineon Technologies

MA5332MS

With higher output power (165W),
Supporting the standard Class D
protection function, the reliable
operation in various environments.

Cirrus Logic

CS43131

Delivering superior audio
performance, while featuring
low power consumption,
and is suitable for a wide
range of headphones.

**New 3rd generation
XMOS XU-316**

PCM support up to 32bit/768kHz
DSD support up to DSD256

Image: Diagram illustrating the key features and technologies of the S.M.S.L AO300, including chipsets, power output, and supported audio formats.

3. PRODUCT OVERVIEW

Front Panel










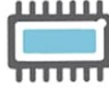




 <p>MA5332MS Amplifier Chip</p>	 <p>CS43131 DAC Chip</p>	 <p>XMOS XU-316</p>	 <p>power output 165Wx2(4Ω),85Wx2(8Ω)</p>
 <p>Bluetooth LDAC</p>	 <p>2.1 channel (with subwoofer)</p>	 <p>HDMI ARC</p>	 <p>NJW1194 Volume control chip</p>
 <p>4.4mm/6.35mm HPA Output</p>	 <p>8 EQ sound mode options</p>	 <p>MQA-CD support MQA-CD</p>	 <p>PCM 32bit/768kHz DSD256</p>

Image: Front view of the S.M.S.L AO300, showing the display screen, function knob, and headphone jacks.

- **Display Screen:** Shows current input, volume, and other settings.
- **Infrared Receiving Window:** For remote control signals.
- **Function Knob:** Rotates to adjust volume, press to select menu options.
- **6.35mm Headphone Jack:** Standard headphone output.
- **4.4mm Headphone Jack:** Balanced headphone output.

Rear Panel

HDMI (ARC) Audio Return



Supporting HMDI (ARC) audio return function, just one HDMI cable connects the AO300 and your TV, bringing you into an exciting new world of simplified, higher-quality home audio.



Note: Using HDMI cable connect an ARC-compatible TV to AO300 when choose HDMI input.

Image: Rear view of the S.M.S.L AO300, detailing all input and output ports including USB, Optical, Coaxial, HDMI ARC, RCA, and speaker terminals.

- **AC IN:** Power input.
- **Power Switch:** Turns the unit on/off.
- **Speaker Outputs (Left/Right):** Connect passive speakers.
- **Subwoofer Output:** Connect an active subwoofer.
- **HDMI (ARC) Input:** Connect to an ARC-compatible TV.
- **Optical Input:** Digital audio input.
- **Coaxial Input:** Digital audio input.
- **USB Input:** Connect to a computer or other USB audio source.
- **Line Input (RCA):** Analog audio input.
- **Bluetooth Antenna:** For wireless Bluetooth connectivity.

4. SETUP INSTRUCTIONS

4.1 Unpacking

Carefully remove the AO300 unit and all accessories from the packaging. Verify that all components listed in the "List of accessories" are present.



List of accessories



Image: Contents of the S.M.S.L AO300 package, including the main unit, remote control, AC cable, USB cable, HDMI cable, Bluetooth antenna, user manual, and warranty card.

4.2 Connecting Speakers and Subwoofer

1. Connect your passive speakers to the "SPEAKERS OUT" terminals on the rear panel. Ensure correct polarity (+ to + and - to -).
2. If using an active subwoofer, connect it to the "SUB OUT" port using an RCA cable.

4.3 Connecting Audio Sources

Choose the appropriate input based on your audio source:

- **USB:** Connect a computer or other USB audio device to the "USB IN" port using the provided USB cable.
- **Optical/Coaxial:** Connect digital audio sources (e.g., CD player, game console) to the "OPTICAL" or "COAXIAL" inputs.
- **HDMI ARC:** Connect an ARC-compatible TV to the "HDMI (ARC)" port using an HDMI cable. Ensure your TV's HDMI ARC feature is enabled.

Product Description



Image: Diagram showing how to connect the S.M.S.L AO300 to a TV via HDMI ARC, with the AO300 then connected to speakers.

- **AUX (RCA):** Connect analog audio sources (e.g., CD/DVD player, DAC) to the "LINE IN" RCA ports.
- **Bluetooth:** Screw the Bluetooth antenna onto the designated connector on the rear panel.

4.4 Power Connection

Connect the provided AC power cable to the "AC IN" port on the rear panel and then to a wall outlet.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

Flip the power switch on the rear panel to the "ON" position. The display will light up. To turn off, flip the switch to "OFF".

5.2 Input Selection

Press the function knob on the front panel or use the remote control to cycle through available inputs (USB, Optical, Coaxial, HDMI ARC, AUX, Bluetooth).

5.3 Volume Control

Rotate the function knob clockwise to increase volume and counter-clockwise to decrease it. Volume can also be adjusted via the remote control.

5.4 Headphone Output

Connect your headphones to either the 6.35mm or 4.4mm jack on the front panel. The speaker outputs will automatically mute when headphones are connected.

5.5 EQ and Filter Settings

Access the menu by pressing and holding the function knob. Navigate to EQ or Filter settings using the knob, then press to select and adjust. The AO300 offers 8 EQ modes (Direct, Super Bass, Tone, Rock, SDB, Soft, Bass, Clear) and 5 digital filters.

5.6 Bluetooth Pairing

1. Select "Bluetooth" as the input source on the AO300.
2. On your mobile device, search for "S.M.S.L AO300" in the Bluetooth settings and pair.
3. Once paired, audio from your device will stream to the AO300.



Bluetooth Input

Bluetooth support for LDAC, APTX/HD, SBC, AAC



2.1 HiFi System

2.1 HiFi system, speaker output plus subwoofer output. More infectious, enjoy the bass shock feeling at any time.

Image: Illustration of the S.M.S.L AO300 receiving Bluetooth input from a smartphone and functioning as a 2.1 HiFi system with speakers and a subwoofer.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the unit. Avoid using harsh chemicals or abrasive materials.
- **Placement:** Place the AO300 on a stable, flat surface with adequate ventilation. Avoid direct sunlight, heat sources, and high humidity.
- **Power:** Disconnect the power cable from the wall outlet if the unit will not be used for an extended period.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power	Power cable not connected; Power switch off; Outlet malfunction.	Ensure power cable is securely connected. Flip power switch to ON. Test outlet with another device.

Problem	Possible Cause	Solution
No sound output	Incorrect input selected; Volume too low; Speakers/headphones not connected; Muted.	Select correct input. Increase volume. Check speaker/headphone connections. Ensure unit is not muted.
Bluetooth pairing failure	AO300 not in pairing mode; Device too far; Interference.	Ensure Bluetooth input is selected on AO300. Move device closer. Restart both devices.
HDMI ARC not working	TV ARC not enabled; Incorrect HDMI port; HDMI cable issue.	Enable ARC on your TV. Use an ARC-compatible HDMI port. Try a different HDMI cable.

8. SPECIFICATIONS

- **Model:** AO300
- **Power Output:** 165W x 2 (4Ω), 85W x 2 (8Ω)
- **DAC Chip:** CS43131
- **Amplifier Chip:** MA5332MS
- **Volume Control Chip:** NJW1194
- **USB Processor:** XMOS XU-316
- **USB PCM Support:** Up to 32bit/768kHz
- **USB DSD Support:** Up to DSD256
- **Bluetooth Codecs:** LDAC, APTX/HD, SBC, AAC
- **Inputs:** USB, Optical, Coaxial, HDMI ARC, AUX (RCA), Bluetooth
- **Outputs:** Speaker terminals (2.1 channel with subwoofer out), 4.4mm Headphone, 6.35mm Headphone
- **EQ Modes:** 8 (Direct, Super Bass, Tone, Rock, SDB, Soft, Bass, Clear)
- **Dimensions:** Approximately 219mm (W) x 185mm (D) x 42mm (H) (based on image)

Output Power up to 165W x2

The AO300 provides 165Wx2 (4Ω) and 85Wx2 (8Ω) output power that for powerful and dynamic sound reproduction. A more immersive listening experience.

4Ω	8Ω	THD+N
165W x 2	85W x 2	0.003%

Image: Graphic detailing the output power of the S.M.S.L AO300 at different impedances (165W x 2 at 4Ω, 85W x 2 at 8Ω) and its low THD+N.

One is All DAC+HPA+AMP

With multiple identities, the AO300 brings out every detail of the music, and conveys the emotion of the notes in a richer way.



Decoder



Headphone Amplifier



Power Amplifier

Image: The S.M.S.L AO300 shown in a desktop setup, highlighting its compact dimensions and its role as a DAC, headphone amplifier, and power amplifier.

9. WARRANTY AND SUPPORT

9.1 Warranty Information

S.M.S.L products typically come with a 1-year warranty from the date of purchase. Please refer to the warranty card included in your package for specific terms and conditions. Keep your proof of purchase for warranty claims.

9.2 Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact S.M.S.L customer support. You can find contact information on the official S.M.S.L website or through the retailer where you purchased the product. S.M.S.L is committed to providing excellent products and services, including 24-hour online service for any questions.

For more information, visit the [S.M.S.L Store on Amazon](#).

