



HIGH PERFORMANCE AUDIO DAC & HEADPHONE AMPLIFIER

ASP-09301



QUICK START GUIDE

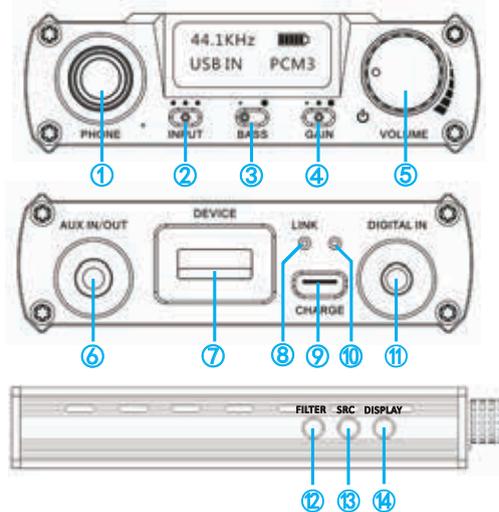
Introduction

ASP-09301 is the latest full-featured hi-end portable headphone amplifier released by ATC. The small device contains high performance USB, optical fiber, coaxial audio decoding and headphone amp with an OLED display and a real time display digital information flow. ASP-09301 can be connected to WINDOWS, IOS and Android system with USB, supporting up to 32Bit/384KHz PCM signal, DSD256 signal and 32Bit/384KHz DXD signal. it can also be connected to all kinds of DAP output with coaxial or optical, supporting up to 24BIT/192KHz PCM signal. External with Gain settings, Bass boost settings, DAC filter settings and SRC set function. This product is suitable for the use of PC, PAD, mobile phones, and other HI-FI player connections, effectively enhancing the quality of original playback device as well as driving a variety of high-end headphones. With ASP-09301, we guarantee the highest quality of music for your enjoyment.

Features

- Supports PC USB audio decoding functions, works in asynchronous transfer mode, and supports WASAPI, ASIO and KS kernel flow mode, supports up to 32Bit/384KHz PCM signal; supports up to 32Bit/384KHz DXD signal; supports up to 1bit/11.28MHz DSD signal, works in DOP or NATIVE mode.
- Using Lightning to USB Camera Adapter line connection; supports for iPod, iPhone, iPad USB audio decoding functions and supports up to 24Bit/192KHz PCM signal, supports up to DSD128 signal (Note: Apple's IOS limits maximum can only support DSD128)
- Using USB OTG cable connection; supports for Android phones' and music players' USB audio decoding, supports up to 24Bit/192KHz PCM signal, supports up to DSD128 signal (Note: Android limits the maximum can only support DSD128)
- Supports coaxial audio decoding, supports up to 24bit / 192KHz PCM signal can be connected with a coaxial audio output of the player to obtain the highest quality of sound.
- Supports optical audio decoding, supports up to 24bit / 192KHz PCM signal can be connected with a optical audio output of the player to obtain the highest quality of sound.
- Supports AUX input / output.
- Audio processing chip: USB audio processor by XMOS latest 8 core processing chip: U8a chip; Optical / Coaxial audio processor by Cirrus logic cs8422 chip; DAC processor uses the AKM's top chip AK4490 and support for DSD, DXD and PCM native signal.
- The amp part uses OP+BUF structure, which is dynamic with strong driving ability.
- Using efficient power conversion chip, provides +/-9V power to the power amplifier chip, OCL circuit structure, greatly improves the dynamic range of output signal, can drive headphones easily.
- The external 3 gears of gaining, suitable for matching different Headphone.
- The external 2 gears bass boost, satisfying all kinds of requirements.
- The external DAC chip filter adjustment for different listening experience.
- The external SRC adjustment for different listening experience.

Parts and Controls



1. 6.5mm headphone jack. Applies to 8-300 euro earphones.
2. Input selection switch. Choose USB/Coaxial/Optical/AUX input.
3. Bass boost switch boost up + 6 dB
4. Gain switch. Boost up + 3/+11 dB, for driving high impedance headphone.
5. Power/Volume knob. Turn right to turn on the power, brighten the display and to increase the volume; turn left to reduce the volume.
6. Line out/in jack. When it is function as line in, USB/optical/coaxial decode, the port functions as line out.

⑦ USB audio input port. Compatible with Apple/Win/Linux system computer; requires Apple's camera adapter for the iPhone, iPod touch, and iPad devices; requires USB-OTG cable for Android devices.

⑧ Link LED. LINK Light turns on when USB is connected.

⑨ Charging jack. Connect to PC or to charger for charging.

⑩ Charging indicator. Red light blinks when charging; light turns off when full charged.

⑪ Optical/Coaxial input jack. Support up to 24 bit /192 KHz digital signal.

⑫ Filter Settings. For more information, see "DAC Filters Instruction".

⑬ SRC Settings. Only for coaxial/optical input, can be set to 48/96/192KHZ.

⑭ Display on/off. Long press to turn off, short press to turn on.

Screen Informations



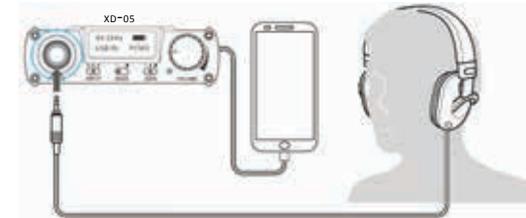
DAC Filters Instruction



The filter code name and actual name are one to one correspondence as follow

PCM FILTER	DSD FILTER
PCM1 Sharp roll-off filter	DSD1 Reserved Cut off filter
PCM2 Slow roll-off filter	DSD2 50K Cut off filter
PCM3 Short delay Sharp roll-off filter	DSD3 150K Cut off filter
PCM4 Short delay Slow roll-off filter	

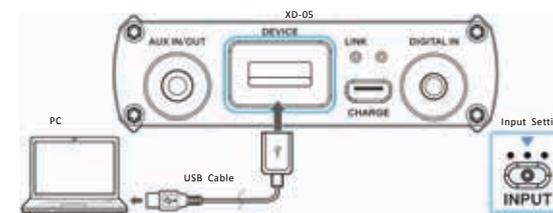
Listening to Music



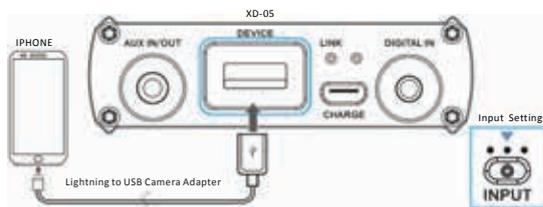
1. Connect headphone to the unit.
*Note: The XD-05 only supports dual channel Headset, it does not support the mono Headset or Headset with remote control function or with microphone function.
2. Connect audio device with the unit. For details, see "Connecting to the Audio Device".
3. Turn the power/ volume knob to the right to turn on the unit. More time is required the first time the unit connects with the computer.
4. Play music with the connected audio device.
5. Adjust the volume to your comfort zone and start enjoying music.
6. Set the GAIN according to your headset, you can also set up BASS and DAC filter according to your preferences.
7. Bind your audio device with the unit with silicon tape for easy carrying.

Connecting to the Audio Device

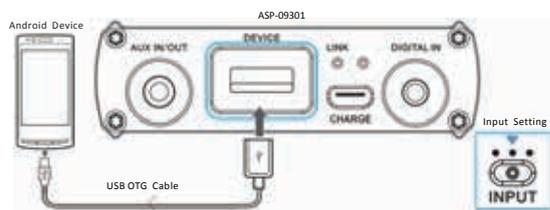
1. Use the supplied USB cable to connect to Apple/Windows/Linux computer. Make sure to turn the INPUT switch to USB IN position.



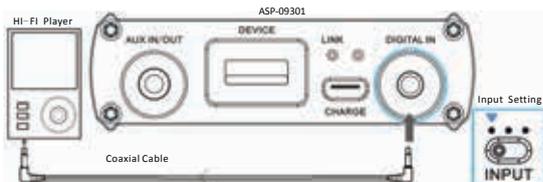
2. Use Lightning to USB Camera Adapter to connect with IOS device such as iPhone, iPod Touch, iPad. Make sure to turn the INPUT switch to USB IN position. (* Note: For the first time connecting with the iPhone, you will need to manually turn up to maximum volume.)



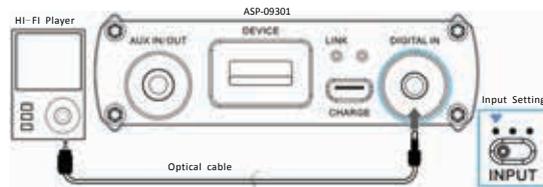
3. Use the OTG USB cable to connect to Android mobile phone / player with the OTG function. Make sure to turn the INPUT switch to USB IN position.



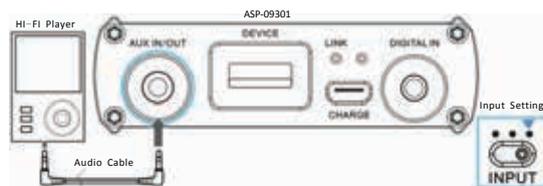
4. Use the Coaxial cable to connect to the Coaxial audio output device. Make sure to turn the INPUT switch to USB IN position.



5. Use the optical cable to connect to the Fiber audio output device. Make sure to turn the INPUT switch to USB IN position.



6. Use 3.5mm audio cable to connect to the Line out audio output device.



Recommended Player

When playing high-resolution audio files, we suggest you to use the following players;

- In PC : Jriver, Foobar2000
- In MAC : Audirvana plus
- In iPhones and iPad : HF player
- In Android phone and PAD : Hiby player, HF player

Set Up In PC

1. If there is no sound when connected to the computer, please check if the PC playback device setting are correct. The sample windows7 set steps are as follows: Click PC start menu, select: control panel -> hardware and sound -> hardware and sound -> sound, after a computer is ejected from an interface, click < play > option, and then select <XMOSES XS1-U8 MFA> to set it as the default playback device.

2. Set the PC player output channel as local channel. The sample player Foobar2000 set steps are as follows:

Open Foobar, click file-> preferences-> playback-> output, choose XMOSES XS1-U8 MFA channel from Device on the right side.

Install USB PC Driver

1. When the unit is connected to the computer, the driver is required to be installed. (No need to install if your system is MAC.)
2. Use the CD we provided or it can be downloaded from the official website at (<http://http://www.atc-life.com>), choose TUSB_v2.23.0. Please refer to the site of the package for instructions.
3. When using the device to play a high resolution audio files on the computer, we recommend using Jriver or Foobar2000 player.

Charging the unit



1. Charger specifications: output voltage 5V, output current ≥1A.
2. When charging, the red light turns on and stay on for 15 seconds, then it will start blinking according to the mode of charging (slow blink under slow charge mode, quick blink under quick charge mode), the light will turn off after it's charged
3. Full charging requires around 5 hours.
4. Full charging requires up to 11 hours when PC USB is used for charging.
5. Can be charged when the device is working, but would require longer time. Advice you to charge after turning it off.
6. If you are planning not to use the ASP-09301 for long period of time, charge it every half year to avoid excessive battery discharge.

Specifications

Power Source: built in 3.7V/4000mAh rechargeable lithium polymer battery
 Screen: 0.91 inch OLED screen
 Compliant OS: Windows XP/7/8/10, Mac OS X, IOS, Android system
 Output power: 500mW (32Ωload)

Frequency Response: AMP:10Hz~100KHz (±0.5dB)
USB/SPDIF: 20Hz~20KHz (±0.5dB)

Sampling Rate Support:
 USB PCM:16-32Bit/44.1K-384KHz
 DSD: DOP/NATIVE mode, DSD64-256 (1Bit/2.8M-11.2M)
 DXD:24-32Bit/352.8K-384KHz
 OPT/COA PCM:16-24BIT/44.1K-192KHz

Gain: +6/+9/+15dB
 Bass boost: 0/+6dB
 THD+N: 0.0025% (1KHz)
 S/N: 112dB
 Suitable Headphone impedance: 8Ω ~ 300Ω.
 Battery life: >11H (USB IN), >16H (SPDIF IN), >23H (AUX IN)
 Charging time: Quick charge 5H (with charger), slow charge 11H (with computer)
 Size: 139.5*75*23mm
 Weight: 270g

Package List

Please check the items in the package

<input type="checkbox"/> ASP-09301	1 pc	<input type="checkbox"/> USB cable	2 pcs
<input type="checkbox"/> Drive CD	1 pc	<input type="checkbox"/> Silicone band	2 pcs
<input type="checkbox"/> User Manual	1 pc	<input type="checkbox"/> Welcome card	1 pc
<input type="checkbox"/> Rubber feet	4 pcs	<input type="checkbox"/> 6.5 to 3.5 Converter	1 pc

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