High Performance Balanced DAC & Headphone Amplifier
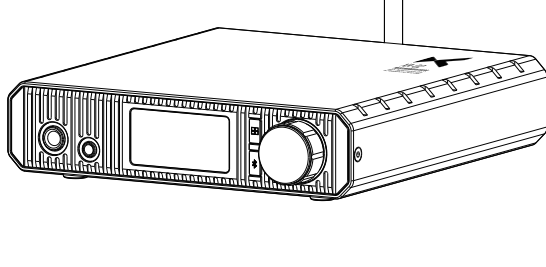
About Us
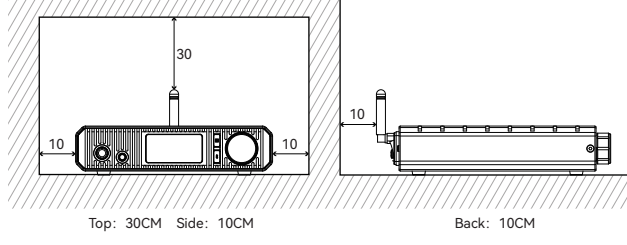
For more product information,please visit our
Http://www.xduoo.com
Or scan us directly to enter the offical website

Before operating this machine, please read this manual carefully and keep it in a safe place for future reference.

1.Safety Instructions

1.Please do not sprinkle water on this unit, please do not place vases or items filled with liquid on the machine.

2.Because this unit is a Class A amplifier, it is normal to have some hot at work.

3.Please do not open the machine for maintenance or modification by yourself. Opening the machine and arbitrarily modifying the internal circuit will make it difficult for maintenance personnel to repair the machine, and will affect the performance or quality of the machine.

4.Please place this unit in a well-ventilated place, avoid direct sunlight, and the machine should leave at least the following clearances:

Top: 30CM Side: 10CM   Back: 10CM

2.Operation Notes:

1.Turn on the power： Before turning it on, please check again whether connections are correct .

2.Using mobile phone: Using mobile phone near the amp may cause noise when playback. If this happens, move mobile phone away from the amp.

3.Move the machine： Please disconnect the power cables before moving the machine.

3. Product introduction

XA-02 is a high-fidelity small desktop balanced headphone amplifier that integrates USB, optical, coaxial, Bluetooth audio decoding and analog audio in, and it has an OLED 1.3 inch screen that can intuitively display various working status; USB audio decoder used XMOS's XU316, which can support up to digital audio signal PCM 32bit/384KHz, MQA and DSD256. Optical and coaxial in support maximum PCM 24bit/192KHz, DSD64 (DOP). Bluetooth uses QCC5125, which support high-definition formats such as aptX, aptX_HD, and LDAC. The analog amplification part adopts a fully balanced small class A design structure that can bring delicate and soft vocals without losing the explosive power and sense of speed of the music, and is equipped with +/-12V power supply as a power amplifier, with strong load capacity, it can easily drive many kind headphones, and greatly enhance the dynamics of the sound field, which can restore the sense of reality of the concert.

4.Product Features

1.With 1.3 inch OLED screen, display the information of music;

2.Support USB audio decoding functions, work in asynchronous transfer mode, support up to PCM 32Bit/384KHz,DSD256 and MQA;

3.DAC chip uses ESEs ES9039Q2M chip to support native DSD, DXD and PCM signals, better decoding performance;

4.Support bluetooth audio decoding, bluetooth 5.1, support SBC、 AAC, aptX, aptX_LL、 aptX_HD、LDAC format;

5.Support coaxial/optical audio decoding, support up to PCM 24bit / 192Khz and DSD64 signal;

6.Built-in filter circuit and high-efficiency power conversion circuit, optimize the power supply design through the LDO circuit, and separately supply power to the decoder chip, LPF, amplifier, XMOS, and digital receiver chip;

7.Using transistors for class A circuit, with strong load capacity, it can easily drive many kind headphones;

8.Use ELNA& SILMIC professional audio capacitor for power filter capacitor, the sound is soft, warm and soft, and the high frequency is gorgeous;

9.Built-in output relay protection to avoid the "pop" sound of switching on and off, and to protect the earphone and machine under abnormal conditions.
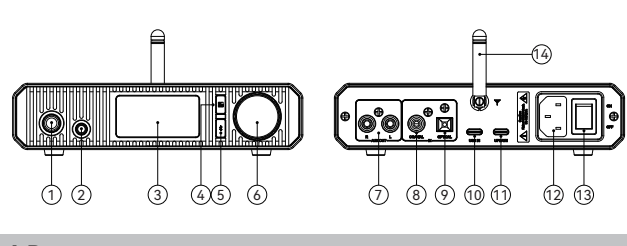
5.Parts and Controls

1.6.35mm headphone out

2.4.4mm Balanced headphone out

3.Screen

4.Menu key: press this key to enter or exit the menu setting windows, then rotate the volume knob to select the menu which you want, and press the volume knob to confirm.

5.Pairing (bluetooth) button: long press for 3 seconds to force into pairing state.

6.Knob (Multi-function):

1) Turn up the volume clockwise; turn it down counterclockwise;

2) Short press to change input channel: USB in, Coaxial, Optical and Bluetooth in;

3) In the menu settings windows, press this button to setting.

Backlight: The light changes color according to the volume, as follows:

Backlight	Dark cyan→Bright cyan	Light red→Deep red
Volume	0~20	21~45	46~75	76~99

7. AUX Out: output from DAC.

8.Coaxial IN

9.Optical IN

10.USB IN

11.Upgrade interface

12 Power input: connect to AC100-240V.
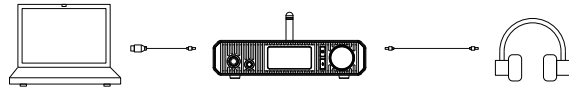
13.Power on/off

14.Bluetooth antenna

6.Parameters

1.Power Supply： AC 100-240V.

2.Screen: 1.3 inch OLED screen.

3.Compliant OS： Windows, Linux, Mac OS X, IOS, Android system.

4.USB Sampling Rate Support:

• PCM: 16~32Bit/44.1~384kHz;

• DSD: DSD64~DSD256;

• MQA: 44.1~384kHz.

5.COA/OPT Sampling Rate Support:

• PCM: PCM: 16-24bit/44.1~192KHz;

• DSD: DSD64(DOP)

6.Bluetooth support formats: SBC、 AAC、 atpX、 atpX LL、 atpX HD、LDAC。

7.6.35mm Headphone Output Parameters:

• Output Power： 910mW(32Ω load);

• Frequency Response: 20Hz~60kHz(±0.5dB);

• Crosstalk: ≥71dB;

• SNR： 119dB(A Weight) ；

• THD+n： 0.002%.

8.4.4mm Bal Headphone Output Parameters:

• Output Power： 2000mW(32Ω load);

• Frequency Response: 20Hz~60kHz(±0.5dB);

• Crosstalk: ±118dB;

• SNR： 121dB(A Weight) ；

• THD+n： 0.0004%.

9.AUX OUT Parameters:

• Output level： 2.6Vms;

• Frequency Response： 20Hz~60kHz(±0.5dB);

• Crosstalk: ±118dB;

• SNR： 121dB(A Weight) ；

• THD+n： ≤0.0004%

10.Suitable headphone impedance： 16Ω~600Ω.

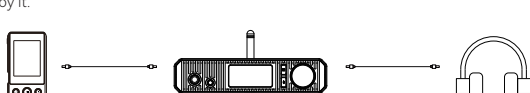11 Size： 20× 17.5× 4.7CM.

12 Weight： 0.9KG.

7.Accessories

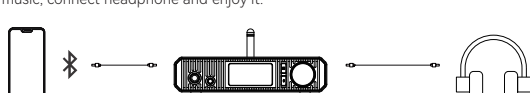|	
AC Cable	1PC
USB Cable	1PC
User's Manual	1PC
Warranty Card	1PC
6.5 to 3.5 converter	1PC

8.Connecting to the Audio Device

1.Setting INPUT to the screen display USB IN, use the USB cable to connect to an Apple/windows/Linux system computer, connect headphone, playing music on computer and enjoy it. (Need to set this unit as an audio output device on the computer)
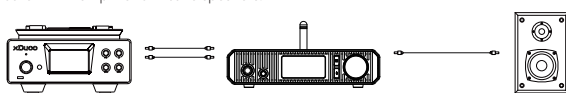
2.Setting INPUT to the screen display COAXIAL/OPTICAL, use Coaxial/Optical cable to connect with player or CD which with Coaxial /Optical audio output, playing music, connect headphone and enjoy it.

3.Setting INPUT to the screen display Bluetooth, connect Bluetooth to phone or computer, playing music, connect headphone and enjoy it.

4.When connect USB, COAXIAL、 OPTICAL, or Bluetooth, the AUX OUT can be connected to other Hi-Fi amplifier or Active speakers.

Note: Do not tie the audio cable together with the power cable to avoid noise.

5.When connecting to a computer to play music, if there is no sound, please check whether the PC audio output device settings are correct, the steps are as follows:

Click the PC start menu and select: Control Panel→Hardware and Sound→Hardware and Sound→Sound. When the PC audio output pops up an interface, click the <Play> option, and then select <xDuoo USB Audio> to set it as the default playback device.

9.Warranty Information

Our products can enjoy 12-month free warranty services from the date of the sale, if the warranty period is expired, our company will charge parts cost depend on the product fault conditions. Accessories are not covered under warranty.