



Link3 User Manual

Product Introduction

Link3 is a portable USB DAC & headphone amplifier, suitable for connecting to devices such as phones, tablets, and laptops. It enables high-definition decoding to output high-quality audio, and can well drive various high-end headphones through its internal power amplifier.

Adopting a battery-free design, it is powered directly via a USB port, can connect to the USB ports of iOS/Android phones, as well as Windows/Mac computers for decoding.

The USB chip uses the XOMS XU316, which supports up to PCM 32Bit/768kHz and DSD512. For the DAC chips, it employs two ES9039Q2M from ESS—each DAC chip is decoding a single channel, delivering higher resolution, more accurate sound image positioning. The output include a 3.5mm unbalanced and a 4.4mm balanced port. In the Super Power Mode, the output power can reach 1000mW@32Ω, easily driving many kinds of headphones.

In terms of other functions, Link3 has 3 built-in EQ modes, and equipped with a HUB expanded storage function, supporting Micro SD cards with a maximum capacity of 2TB. Meanwhile, it is fitted with an external power port. This port can supply power to Link3 while charging the phone, and simultaneously activate the Super Power Mode to achieve stronger driving force and better sound density.

Product Features

1. Can be used as an external decoding headphone amplifier (sound card) for devices such as phones, tablets, or computers to achieve better sound quality.
2. Compatible with iOS/Android phones/tablets, Windows/Mac computers, as well as Switch and PS game consoles.
3. Equipped with a TFT color display, facilitating menu settings and real-time monitoring of working status.
4. Adopts the XMOS XU316 USB chip, with a maximum supported sampling rate of PCM 32Bit/768kHz and DSD512.
5. Uses two ES9039Q2M DAC chips, each responsible for decoding one channel, delivering higher resolution and more accurate sound image positioning.
6. Uses two SG8262 as amplifier chips, providing higher output power.
7. Features 100 volume levels, enabling smooth, stepless volume adjustment.
8. Supports Micro SD cards up to 2TB in capacity, solving the problem of insufficient storage space on phones/computers.
9. Built-in EQ adjustment, allowing users to switch sound style at any time.
10. Comes with an external USB fast-charging port, supporting simultaneous phone charging and music playback. It also activates the Super Power Mode at the same time, providing stronger driving force.
11. Equipped with 3.5mm and 4.4mm headphone output ports, meeting the connection needs of different types of headphones.

Specifications

Input Interface	Type-C
Power Consumption	5V/0.27A(0.3W)
USB System	UAC1.0/UAC2.0
Sampling Rates	PCM 16-32Bit/44.1k-768kHz
	DSD 1Bit/2.82m-22.57mHz
Headphone out	3.5mm+4.4mm

Output Power	Unbalanced	Balanced
	500mW@32Ω	1000mW@32Ω
	310mW @75Ω	610mW @75Ω
	160mW @150Ω	300mW @150Ω
Normal Power Mode	80mW @300Ω	150mW @300Ω
	360mW @32Ω	700mW @32Ω
	200mW @75Ω	540mW @75Ω
	100mW @150Ω	270mW @150Ω
THD+N	110dB@1kHz	112dB@1kHz
	50mW @300Ω	130mW @300Ω
SNR	≥120dB	≥130dB
Crosstalk	≥75dB	≥123dB

Frequency Response	20Hz~20kHz(±0.5dB)
Expansion Interfaces	Micro SD (maximum capacity: 2TB)
Dimensions	10.7*3.8*1.5cm
Weight	70g

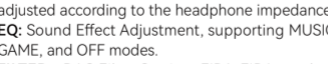
Parts and Controls

- ① Screen
- ② Volume + Button: Short press to increase volume, long press to quickly increase volume; in the menu interface, short press to upward.
- ③ Volume - Button: Short press to decrease volume, long press to quickly decrease volume; in the menu interface, short press to downward.
- ④ Multi-Function Buttons:
 - A: When playing music, short press to play/pause;
 - B: When playing music, double click quickly to skip to the next track, triple click quickly to go back to the previous track;
 - C: In the menu interface, short press to confirm.
 (Note: Due to differences in Android systems among different brands, the play functions may not work on some phones.)
- ⑤ 3.5mm Headphone Jack: Stereo, no microphone function.
- ⑥ 4.4mm Headphone Jack: For connecting 4.4mm balanced headphones, cannot be adapted to unbalanced headphones.
- ⑦ Sampling Rate Indicator Light: Displays different colors according to the sampling rate of the playing song, as follows:

A	44.1k-48kHz	Red
B	88.2k-96kHz	Cyan
C	176.4k-768 kHz	Yellow
D	DSD64-512	White

- ⑧ USB Audio Input: Type-C interface, connect to the USB port of audio devices using a Type-C adapter cable. (Note: Due to power consumption limitations, Apple devices with Lightning interface need to be connected to external power to work.)
- ⑨ Menu Button: Long press for 2 seconds to enter/exit the menu interface.
- ⑩ Micro SD Card Slot: Songs in the card can be opened and played through mobile phones/computers, and the music can be output to Link3 for decoding. It supports Fat32 and exFat formats, with a maximum capacity of 2TB.
- ⑪ External Power/Charging Port: Type-C interface. When connected to a power source, it can supply power to Link3, activate the Super Power Mode, and charge the mobile phone at the same time (supports PD3.0 protocol).

UI Instructions



- ① EQ
- ② Volume
- ③ Filter
- ④ Gain
- ⑤ External Power (highlighted when connected external power)
- ⑥ Sampling Rate and Format

Menu Setting



Long press the Menu Button to enter the menu interface. Short press the Volume +/- Buttons to select the menu you need to set, then short press the Confirm Button to enter. Adjust the setting value by short pressing the Volume +/- Buttons again, and press the Confirm Button to confirm. After that, short press the Menu Button to exit, or it will automatically exit if there is no operation for 5 seconds.

The instructions for each menu setting are as follows:

- ① UAC :USB System Setting, there are: UAC1.0, UAC2.0, HUB.

UAC1.0	USB1.0 low-speed mode, supporting a maximum of 16bit/48kHz, mainly used for compatibility with Switch and PS game consoles.
UAC2.0	USB2.0 high-speed mode, supporting high sampling rates and DSD format

- ② GAIN: "L" is low gain, "H" is high gain, The gain can be adjusted according to the headphone impedance.
- ③ EQ: Sound Effect Adjustment, supporting MUSIC, MOVIE, GAME, and OFF modes.
- ④ FILTER: DAC Filter Setting. FIR1-FIR4 are the codes of different filters, and the details are as follows:

Filter Code	Full Name
FIR1	Minimum phase
FIR2	Linear phase fast roll-off apodizing
FIR3	Linear phase fast roll-off
FIR4	Linear phase fast roll-off low ripple



- ⑤ COLOR: Display font color selection.
- ⑥ BRIGHT: Display Brightness Adjustment. Reducing the brightness helps extend the display's service life.
- ⑦ SCREEN OFF: Auto Screen-off Time Setting. If there is no operation within the set time, the display will turn off automatically, which helps extend the display's service life. When "OFF" is selected, the display will remain on continuously.

Accessories

- Type-C to C cable _____ ×1
- User Manual _____ ×1
- Warranty Card _____ ×1

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.

Company Name: xDuo Technology Co.,LTD
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