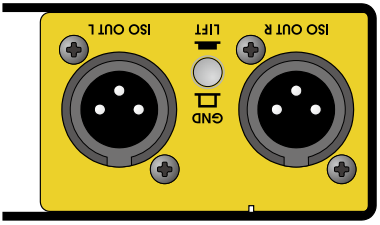
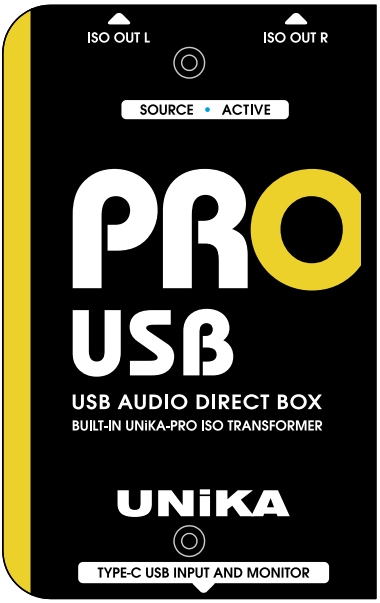
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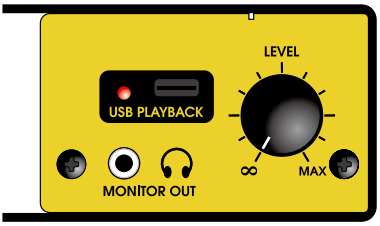
# USER MANUAL

# PRO USB

## PRO SERIES AUDIO INTERFACE
## USB AUDIO DIRECT BOX
DESIGN & MADE IN TAIWAN




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# GENERAL PRECAUTION BEFORE USE

Thank you for purchasing the UNiKA PRO SERIES AUDIO INTERFACE. Before using, please read this manual carefully and pay attention to every detail that you must pay attention to. If you use a mixer to connect to this interface, please turn off the mixer power and +48V phantom power before connecting, and then turn on the power and phantom power after inserting the signal cables. For passive models, please do not turn on the phantom power to avoid leakage or damage the equipment.

If using a model with a volume knob, turn the volume knob to the minimum. During use, please do not plug or unplug the wires arbitrarily to avoid signal loss. Please refer to the following instructions for the soldering method of the plugs to ensure the expected level and keep the signal smooth.

If you need further installation or operation guidance, please directly contact UNiKA's dealer or distributor, or write to the following mail address for help:

**info@unikapro.com**

# PRODUCT OVERVIEW

PRO USB is a passive DI box specially designed for mobile devices. It is compatible with Windows, Mac OSX, iOS and Android systems. It does not require any drivers to achieve plug and play. It can be used as a signal impedance matcher for mobile devices and built-in headphone amplifier and volume control.

PRO USB is the first to use TYPE-C as the terminal to connect to mobile phone and computer.

The USB audio decoder combines Com True CT-7601SR and Cirrus Logic CS-43131 to achieve 192KHz/32bit performance, and are compatible with DSD digital formats and all common lossless and compressed music formats.

The PRO USB has a pair of built-in UNiKA-PRO™ EI9AE3R3 1.25:1 isolation transformer for each channel isolation transformers. The transformer has a special copper foil layer and a dedicated grounding layer, which can ensure the high signal/noise ratio and dynamic sound of the device, and avoid unnecessary Leakage caused by radio frequency interference, grounding interference and potential difference. PRO USB is especially suitable for mobile phone, computer and media player. It converts high-impedance signals into low-impedance balanced signals, which is convenient for extending the wiring distance and blocking interference.

PRO USB has built-in mini TRS headphone monitor output and monitor volume control, which can drive 16Ω~600Ω headphones.

## CAUTION

This product has undergone rigorous inspection before leaving the factory. If customers encounter failures during use, please contact your local dealer or distributor for replacement or repairing, do not disassemble the case or replace parts by yourself, which will invalidate the warranty.

For details, please refer to the warranty regulations in the enclosed warranty card, and fill in the details, and get a valid stamp or signature of the d ealer or distributor.

## PARAMETER TEST CONDITIONS

In the development and manufacturing process, Audio Precision's 2700 series and 500 series are used to test and verify electrical characteristics.

## FEATURES

- Built-in UNiKA-PRO™ EI9AE3R3 1.25:1 isolation transformer for each channel
- Built-in CT7601 USB bridge and CS43131 DAC with headphone amplifier
- 32bit convert rate and 192KHz over sampling
- Compatible with Windows, Mac OS, iOS and Android systems.
- Compatible with DSD digital formats and all common lossless and compressed music formats.
- Mini TRS jack used to connect earphone or headphone with volume control
- Built-in Type-C USB digital audio input connector
- The output is equipped with a GND/LIFT switch

## CONNECT TO COMPUTER

If you need to use the ASIO driver to play DSD stream files in WINDOWS 10, or connect PRO USB it the WINDOWS 7 system, please download the driver from the official website:

**https://www.unikapro.com/support/download/**

File name: UNiKA ASIO_DSD_driver_ENG_20201208

MacOSX no need to install ASIO driver either play normal music format or DSD.

When PRO USB is successfully connected to the computer, UNiKA USB DEVICE will be displayed in the sound card option, because the computer has automatically defaulted PRO USB as its external sound card. If it is not automatically recognized, you can open the settings to change it.

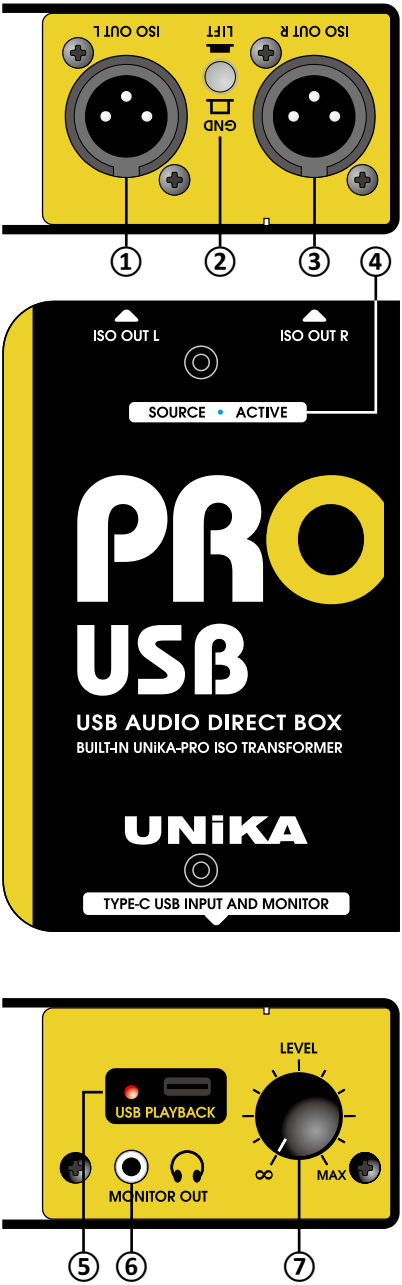
If the connection is successful, the "SOURCE ACTIVE blue light on the top cover of the PRO USB will also light up", indicating that it has been powered by the computer.

## CONNECT TO MOBILE PHONE

For Android OS, Use the TYPE-C to TYPE-C or Micro USB to TYPE-C data cable to connect the phone and PRO USB, then you can connect and play. After the connection is successful, the blue "SOURCE ACTIVE" light on the cover will also light up .

For iOS, models using the Lightning port are restricted by Apple's special transmission encryption method. Some models may not be able to play directly via TYPE-C USB to PRO USB. It is recommended to connect via Apple's original Lightning or TYPE-C OTG.
Models using the USB-C port can be directly connected for playback, whether it is iPhone or iPad, iPad Pro.

# APPEARANCE PARTS & FUNCTIONS




① **Left channel signal output:** XLR terminal, isolated transformer's balanced output, no need to use +48V phantom power.

② **Output grounding/floating switch:** when the switch is not pressed,the first pin (PIN-1) of XLR is grounded. PIN-1 will be disconnected from ground after pressing. This button should depend on the system.

Used in the situation, in order to isolate the ground loop noise or leakage.

③ **Right channel signal output:** XLR terminal, isolated transformer's balanced output, no need to use +48V phantom power.

④ **Input signal indicator:** When the USB signal source is inserted, this LED display will light up, indicating that the signal and power supply are normal.

⑤ **TYPE-C USB playback input:** used to connect Android phones, Apple phones. In addition to compatible with the above operating systems, it can also play various lossless and compressed music and DSD.

⑥ **Headphone monitor output:** You can connect 16Ω~600Ω headphones for pre-cue or real-time monitoring with level control.

⑦ **Headphone monitor volume control:** You can adjust the volume of the monitor headphone without affecting the level of the balanced output.

# CT7601SR USB/DSD AUDIO BRIDGE

## OVERVIEW



CT-7601SR is a single chip audio USB 2.0/1.1 playback and record bridge.

It compatible with Windows, Mac OS, iOS and Android and plug and play no need extra driver.

## AUDIO DECODING CAPACITY

- PCM (Stereo) support up to 192KHz/32bit through USB port.
- DSD (Native) support 2x bandwidth through USB port.

# CS43131 DIGITAL AUDIO CONVERTER & HA

## OVERVIEW

The CS43131 combines a next generation, low power audio DAC with a high-fidelity headphone amplifier to provide a superior system-level audio performance without draining battery life. This IC minimizes board space requirements while enabling performance and features to drive design differentiation. The CS43131 can support excellent audio quality with a wide range of headphones. This IC can drive 2 VRMS of output into 600 Ω high impedance headphones with an inter-channel isolation of >110dB, and 30mW into 32 Ω low impedance headphones. To minimize pre-echo and ringing artifacts, the CS43131 is designed with proprietary digital-interpolation filters that support five selectable digital filter responses. Filtering options include low group delay with pseudo-linear phase and a fast or slow roll-off. Volume matching of the analog output levels and channel mixing enable a seamless transition between the DSD and PCM playback paths. The onboard low noise, ground-centered headphone amplifier provides proprietary AC impedance detection to support headphone fingerprinting to provide a consistent and transparent audio experience for the end user regardless of transducer impedances or frequency responses. The amplifier also supports adaptive post processing for customer bundled and third party headphones/headsets. An integrated auxillary audio input and "click-less" switch is provided for non-high-fidelity use cases.

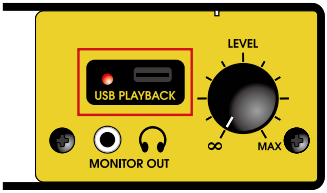


## FEATURES

- Enhanced ΔΣ oversampling DAC architecture - 32-bit resolution - Up to 384-kHz sampling rate - Low clock jitter sensitivity - Auto mute detection
- Integrated high performance, ground-centered stereo headphone outputs
- 130dB dynamic range (A-weighted)
- -115dB total harmonic distortion + noise (THD+N)
- 110dB inter-channel isolation
- Up to 2-Vrms stereo output
- Headphone power output, 30mW per channel into 32Ω/ 5mW per channel into 600Ω
- Headphone detection, Headphone DC and AC impedance measurement
- Headphone plug-in detection
- Pop-guard® technology eliminates pop noise
- Mono Mode (differential) support
- Wideband Flatness Mode Support
- Direct Stream Digital (DSD®) path - Up to 256
- Alternate headphone input
- Smart phones, tablets, portable media players, laptops compatible

## TYPE-C PLAYBACK

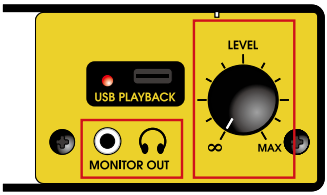
PRO USB is equipped with the most mainstream TYPE-C USB (2.0) terminal to connect to variety mobile devices and computers, and is accompanied by a music beat indicator on the lest side of TYPE-C socket.




There are many TYPE-C conversion terminals on the market, and it is recommended to use qualified the products avoid transmission failures.

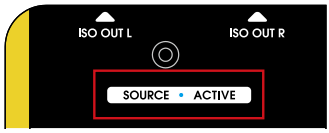
## MONITOR

Equipped with a mini TRS headphone output jack and a monitoring volume knob at the bottom and right of TYPE-C, 16Ω~600Ω headphones can be inserted for advance and real-time monitoring. The volume knob does not affect the level of the balanced output at the back of the isolation transformer.




## TYPE-C SIGNAL SOURCE ACTIVE INDICATOR

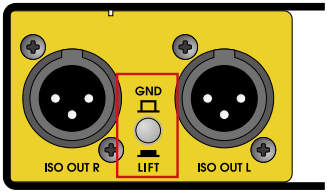
When connected to a computer or mobile device, the computer and mobile device will provide PRO USB power, and the blue light "SOURCE ACTIVE“ on the top cover will also light up at this moment.




Please note that the light on does not mean that the audio signal has been connected. Please refer to the instructions on the previous pages to confirm whether your music is correctly transferred to the PRO USB via your computer or mobile device.

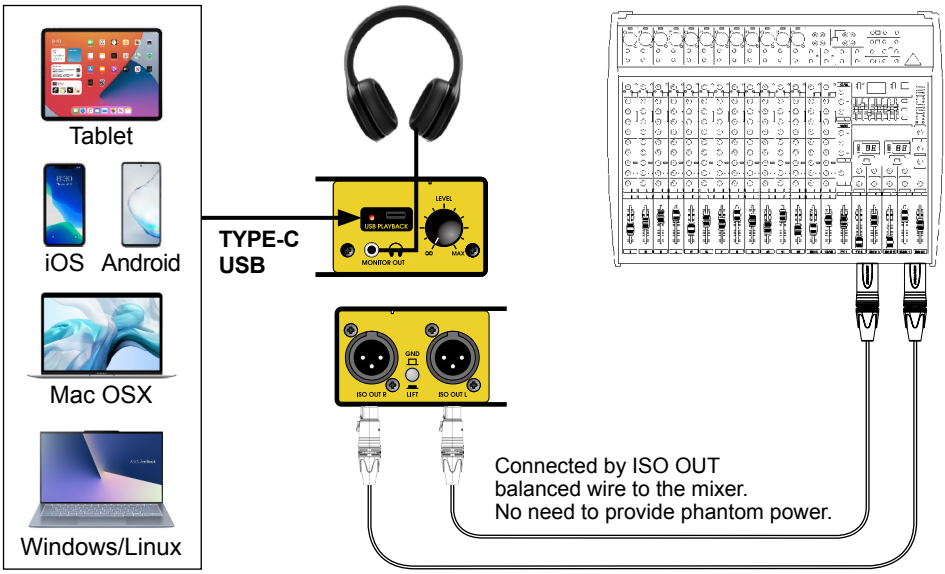
## ELIMINATING GROUND LOOP NOISE

The built-in channel independent balanced isolation transformer has solved the potential difference leakage problem. When the system causes a ground loop due to poor wiring, the noise can be eliminated through the GND/ LIFT button.




The GND/LIFT button determines whether pin 1 of the output XLR is grounded, grounded when it bounces, and disconnected from ground when pressed.

# SYSTEM CONNECTION GUIDE




XLR-Female connector




XLR-Male output jack




1-Shield pin
2-Hot pin
3-Cold pin



TYPE-C Connect to input music source

## SPECIFICATIONS

(Specifications are subject to change without notice.)

| PRO USB | |
|---|---|
| Circuit principle | Passive/Transformer balance output |
| USB Version & connector | Ver 2.0 Type- C |
| UAC bridge solution | 32bit/192KHz |
| DAC solution | 32bit/192KHz with 2x DSD |
| Power supply | Powered by PC or mobile phone throuth Type-C playback connector with LED status indicator |
| Music beat indicator | LED |
| Output connector | 2 x Male XLR through ISO Transformer |
| Output GND/LIFT switch | Shared push button |
| Max Output level | 0.778Vrms |
| Headphone power output | 30mW per channel into 32Ω<br>5mW per channel into 600Ω |
| Frequency response | 20Hz-20KHz, ±0.5dB |
| S/N ratio @20Hz~20KHz un-weight | >110dB |
| T.H.D. @1KHz 0dBV output | <0.005% |
| Transformer Ratio | 1.25:1 |
| Chassis | 1.6mm/1.2mm steel cabinet and chassis |
| Surface finished | Durable complex painting |
| Dimension (W x D x H) | 78 x 124 x 46 mm |
| Weight | 0.64kg |
| Shipping weight | 0.67kg |
| Packing per carton | 20pc/14.00kg |
| Shipping dimension per carton | 305 X 283 X 195 mm |

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