

Douk Audio DZ081

Douk Audio U2 PRO Digital Interface User Manual

Model: DZ081

1. PRODUCT OVERVIEW

The Douk Audio U2 PRO XMOS XU208 Digital Interface is a high-performance USB audio adapter designed to convert USB audio signals into various digital output formats, including TOSLINK optical, coaxial, and HDMI I2S. This device is ideal for connecting your computer or other USB audio sources to DACs, preamplifiers, amplifiers, or active speakers, enhancing your audio experience with superior signal processing.

Equipped with the advanced XMOS XU208 chip, the U2 PRO offers significantly higher processing power and stability compared to previous generations, ensuring accurate and high-fidelity audio transmission. It supports a wide range of sampling rates and DSD formats, making it a versatile component for any audiophile setup.



Figure 1.1: Front view of the Douk Audio U2 PRO Digital Interface, showcasing its compact black aluminum alloy casing.

2. KEY FEATURES

- **Versatile Connectivity:** Features USB (Type-B) input and simultaneous TOSLINK optical, coaxial, and HDMI I2S outputs, allowing connection to a wide array of audio equipment.
- **Advanced XMOS XU208 Chip:** Utilizes the XMOS XU208 chip solution, providing 1000MIPS random access memory for enhanced stability and performance, surpassing U8 and Italian Amanero solutions.
- **High-Resolution Audio Support:** Supports PCM sampling rates from 44.1KHz to 384KHz (16-32 Bit) and DSD DOP up to DSD256, ensuring high-quality audio reproduction.
- **DSD ON Function:** Includes a DSD ON function to match decoders requiring a DSD ON signal for DSD song decoding.
- **Premium Components:** Built with high-quality components such as ultra-low noise LDO regulated power supply, LVDS differential chip, gold-plated coaxial interface, OS-CON solid capacitors, and Panasonic FC filtering capacitors for reliable data transmission and superior sound.

- **Flexible Power Options:** The USB interface can serve as both signal and power input. An external DC 5V input (with priority) allows powering via a phone charger or power bank for portable use.
- **Compact and User-Friendly Design:** Mini size with an exquisite black aluminum alloy design, featuring clear PCM (blue) and DSD (red) indicators for easy monitoring of the output format.

3. PACKAGE CONTENTS

Please check the package for the following items:

- 1x Douk Audio U2 PRO Digital Interface
- 1x USB to DC Cable
- 1x USB Cable
- 1x CD Driver (for Windows OS)



PACKING LIST

Net Weight: 112g/0.25lb

Package Weight: 280g/0.62lb

- 1 × Digital Interface
- 1 × USB to DC Cable
- 1 × USB Cable
- 1 × CD Driver



Figure 3.1: Contents of the Douk Audio U2 PRO package, including the digital interface, cables, and driver CD.

4. SETUP AND CONNECTIONS

Follow these steps to set up your Douk Audio U2 PRO Digital Interface:

4.1. Powering the Device

The U2 PRO can be powered via its USB input or an external DC 5V power supply. The external DC 5V input has priority if both are connected.

- **USB Power:** Connect the provided USB cable from your computer's USB port to the USB IN port on the U2 PRO.
- **External DC 5V Power:** Connect a standard DC 5V power adapter (e.g., a phone charger or power bank) to the DC 5V IN port on the U2 PRO using the provided USB to DC cable.



USB INTERFACE CAN BE USED AS SIGNAL INPUT AND POWER INPUT

with external DC 5V input (with priority) that can be powered by phone charger or power bank, easy to enjoy HiFi music any time and any where.

Figure 4.1: The USB interface can be used for both signal and power input. An external DC 5V input is also available for alternative power sources.

4.2. Input and Output Connections

The U2 PRO accepts USB audio input and provides simultaneous output through TOSLINK optical, coaxial, and HDMI

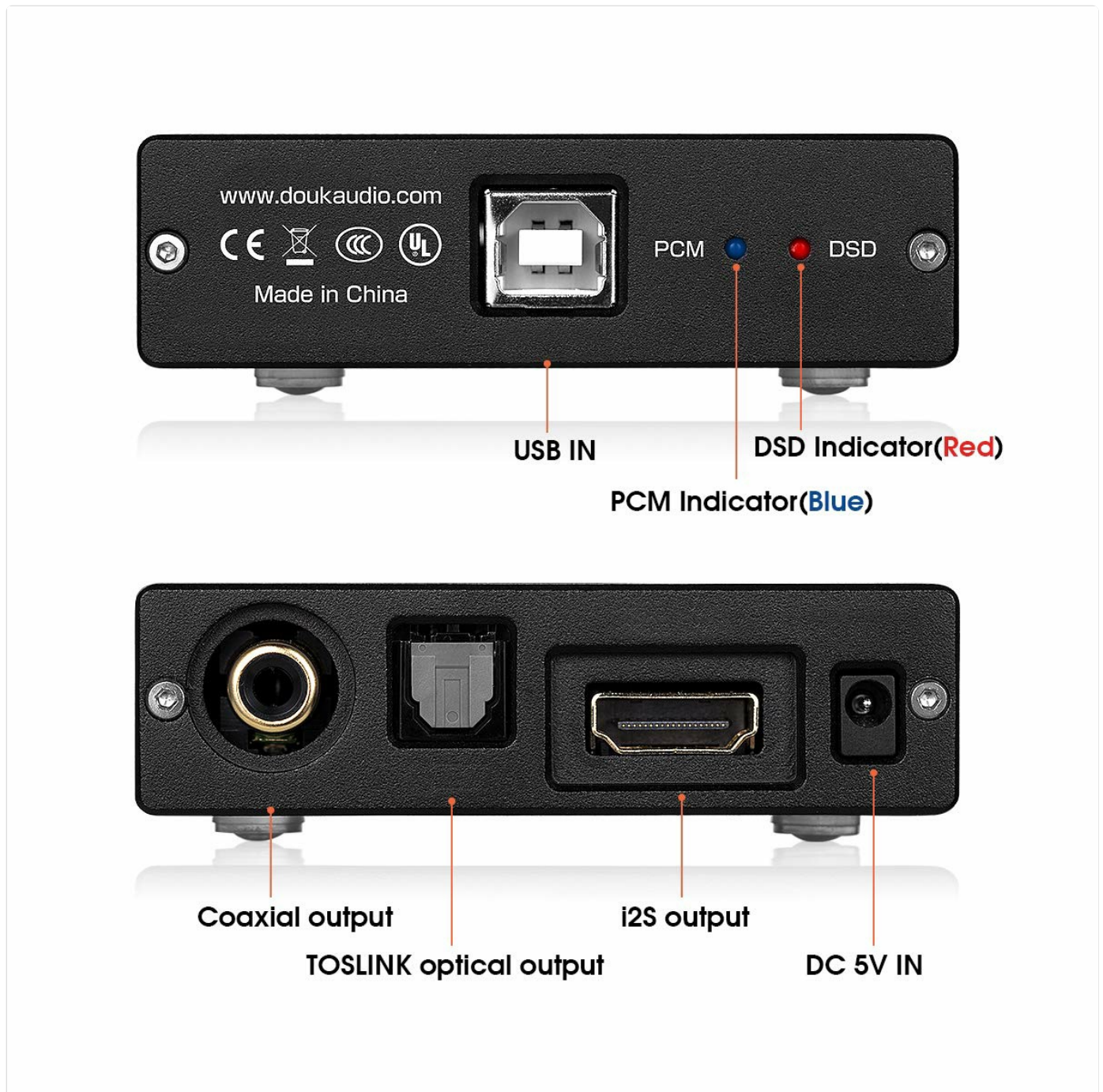


Figure 4.2: Labeled diagram of the Douk Audio U2 PRO's front and rear panels, showing the USB IN, PCM/DSD indicators, Coaxial output, TOSLINK optical output, I2S output, and DC 5V IN port.

1. **USB Input:** Connect your audio source (PC, laptop, Android phone with OTG, Raspberry Pi, set-top box, etc.) to the USB IN port using a USB Type-B cable.
2. **TOSLINK Optical Output:** Connect an optical cable from the TOSLINK output port to your DAC, amplifier, or receiver.
3. **Coaxial Output:** Connect a coaxial cable from the Coaxial output port to your DAC, amplifier, or receiver.
4. **HDMI I2S Output:** Connect an HDMI cable from the I2S output port to a compatible DAC or device that supports HDMI I2S input.

MICRO USB INPUT TOSLINK OPTICAL/COAXIAL/HDMI I2S OUTPUT (CAN OUTPUT AT THE SAME TIME)

Can work well with DAC, preamp, amplifier or speaker. Adopting XMOS XU208 chip solution, with 1000MIPS random access memory much higher than U8 (500MIPS), and more stable than Italian Amanero solution and coaxial output supports DSD DOP.



Figure 4.3: Diagram illustrating various devices that can be connected to the Douk Audio U2 PRO, including PCs, notebooks, Android phones, Raspberry Pi, set-top boxes, and Rock 64 boards.

4.3. Driver Installation (Windows)

For Windows operating systems, a driver is required for optimal performance. Insert the provided CD Driver into your computer and follow the on-screen instructions to install the XMOS driver. For other operating systems like macOS or Linux, drivers are typically not required as the device is plug-and-play.

If you do not have a CD drive, you may be able to download the latest drivers from the official Douk Audio website (refer to the website address printed on the device). Always ensure you download drivers from official sources.

4.4. HDMI I2S Pinout

For users connecting via HDMI I2S, refer to the pinout diagram for compatibility with your DAC. The pinout is typically located on the bottom of the unit.

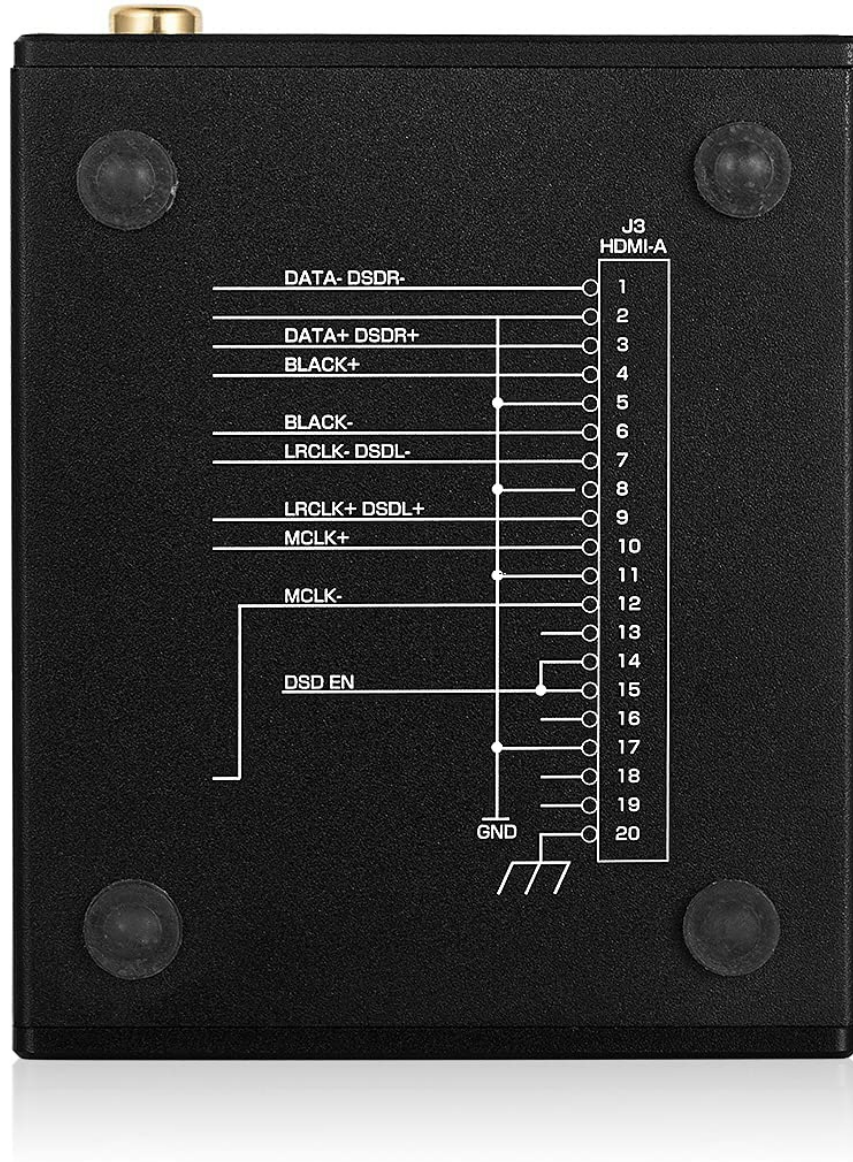


Figure 4.4: Detailed pinout diagram for the HDMI I2S output on the Douk Audio U2 PRO, essential for ensuring proper connection with compatible DACs.

5. OPERATING INSTRUCTIONS

Once connected, the Douk Audio U2 PRO will automatically detect the audio signal from your USB source. The device features indicators to show the current audio format:

- **PCM Indicator (Blue):** Illuminates when the device is processing a PCM (Pulse-Code Modulation) audio signal.
- **DSD Indicator (Red):** Illuminates when the device is processing a DSD (Direct Stream Digital) audio signal.



Figure 5.1: Close-up of the PCM (blue) and DSD (red) indicator lights on the Douk Audio U2 PRO, showing the active audio format.

The U2 PRO supports DSD ON functionality, which is crucial for DACs that require a specific DSD ON signal to correctly decode DSD audio streams. Ensure your DAC is configured to receive DSD signals via the chosen output (Coaxial, Optical, or I2S).

OUTPUT INTERFACE WITH DSD ON FUNCTION

Can match the decoder that needs DSD ON signal to decode DSD songs, supporting 44.1K-384KHz/24-32 Bit sampling rate and DOP DSD256 at highest, better signal process brings higher sound quality.



Figure 5.2: The output interface of the Douk Audio U2 PRO, highlighting its DSD ON function for compatibility with various DACs and support for high-resolution audio formats.

6. MAINTENANCE

To ensure the longevity and optimal performance of your Douk Audio U2 PRO, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Avoid using liquid cleaners or abrasive materials, as they may damage the finish or internal components.
- **Placement:** Place the device in a well-ventilated area, away from direct sunlight, heat sources, and excessive moisture. Ensure there is adequate airflow around the unit.
- **Handling:** Handle the device with care. Avoid dropping it or subjecting it to strong impacts.
- **Connections:** Periodically check all cable connections to ensure they are secure and free from dust or corrosion.

7. TROUBLESHOOTING

If you encounter issues with your Douk Audio U2 PRO, refer to the following troubleshooting tips:

Problem	Possible Cause	Solution
No sound output.	Incorrect cable connection. Incorrect audio output selected on computer/source. DAC/amplifier not powered on or input not selected. Driver not installed (Windows).	Ensure all cables (USB, optical, coaxial, HDMI) are securely connected. Verify that the Douk Audio U2 PRO is selected as the default audio output device in your computer's sound settings. Check power and input selection on your connected DAC/amplifier. Install the XMOS driver if using Windows.
Device not recognized by computer.	Loose USB connection. Driver issue (Windows). Insufficient power.	Reconnect the USB cable. Try a different USB port. Reinstall the XMOS driver. Ensure the device is receiving adequate power, especially if using external DC 5V. Try power cycling the unit (unplug and replug power).
PCM/DSD indicator not lighting up.	No audio signal being sent. Device not powered.	Ensure audio is playing from your source device. Check power connection to the U2 PRO.
White noise or distorted sound.	Ground loop interference. Incorrect DSD ON setting on DAC. Faulty cable.	Try using the external DC 5V power input instead of USB power to isolate potential ground loop issues. Ensure your DAC's DSD settings are compatible with the U2 PRO's DSD ON function. Try replacing the audio cables.

8. SPECIFICATIONS

Feature	Detail
Product Model Number	DZ081
Brand	Douk Audio
Input Interface	USB (Type-B)
Output Interfaces	TOSLINK Optical, Coaxial, HDMI I2S (simultaneous output)
Chip Solution	XMOS XU208
PCM Sampling Rate Support	44.1KHz - 384KHz (16-32 Bit)
DSD Support	DOP DSD256 (highest)
Power Supply	USB Bus Power or External DC 5V (priority for external)
Minimum Supply Voltage	5 Volts (DC)
Maximum Supply Voltage	5.25 Volts

Feature	Detail
Product Dimensions (L x W x H)	3.5 x 2.91 x 0.04 inches (approx. 89mm x 74mm x 21mm)
Product Weight	7.37 ounces (approx. 209g)
Mounting Type	Coaxial, Plug Mount
Number of Pins (I2S)	4
Date First Available	September 8, 2020

MINI SIZE WITH EXQUISITE DESIGN

With PCM and DSD indicator easy to show the output format, black aluminum alloy cases look more cool and fashionable, very suitable for desktop digital audio device to use.



Figure 8.1: The compact size of the Douk Audio U2 PRO, demonstrating its portability and suitability for desktop use.

9. WARRANTY AND SUPPORT

Douk Audio products are designed for reliability and performance. While specific warranty details are not provided in this manual, customers are encouraged to refer to the purchase platform or contact Douk Audio customer support for warranty

information and assistance.

For further technical support or inquiries, please visit the official Douk Audio website or contact their customer service department. You can also refer to the official PDF user guides for more detailed information:

- [User Guide \(PDF\)](#)
- [User Manual \(PDF\)](#)

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Answered questions about this manual

What is the best DAC to use with the Douk Audio U2 PRO (DZ081) Digital Interface?

The Douk Audio U2 PRO (Model DZ081) is a digital interface (DDC) that converts USB signals into various digital formats. It does not have a single "best" DAC, but rather is designed to work...

[Read full answer](#)