RME DigifaceUSB

RME Digiface USB Audio Interface User Manual

Model: DigifaceUSB
Brand: RME

1. Introduction and Overview

The RME Digiface USB is a highly versatile and portable USB digital audio interface designed for professional audio applications. It offers extensive connectivity and high-quality audio conversion, making it suitable for studio recording, live sound, and mobile setups.

This device features 4 optical inputs and outputs, supporting ADAT or S/PDIF formats, and is capable of handling 32 inputs and 32 outputs at 24-bit/192kHz resolution. Its bus-powered design enhances portability, allowing for operation without an external power supply.

Key features include:

- USB 2.0 connectivity for broad compatibility.
- Four optical I/O ports supporting ADAT and S/PDIF, including SMUX and SMUX4.
- Integrated headphone output for monitoring.
- Bus-powered operation for maximum portability.
- Seamless integration with RME's powerful TotalMix software for comprehensive routing and monitoring control.

Figure 1: The RME Digiface USB audio interface. The top unit displays the USB 2.0 port, ADAT/S/PDIF I/O labels, and the headphone jack. The bottom unit shows the optical input and output ports.

2. Setup

2.1 System Requirements

- Operating System: Windows (specific versions may vary, refer to RME website for latest drivers).
- Available USB 2.0 port.

2.2 Driver Installation

Before connecting the Digiface USB to your computer, it is crucial to install the latest drivers. These drivers are part of RME's MADIface series driver package and are available for download from the official RME website. Ensure you download the correct driver version for your operating system.

1. Visit the RME official website (www.rme-audio.de).
2. Navigate to the 'Downloads' or 'Support' section.
3. Locate and download the latest MADIface series driver package for your operating system.
4. Run the installer and follow the on-screen prompts to complete the driver installation.
5. Restart your computer if prompted.

2.3 Hardware Connection

Once the drivers are installed, connect the Digiface USB to your computer:

1. Connect the supplied USB cable from the Digiface USB's USB 2.0 port to an available USB 2.0 port on your computer. The device is bus-powered, so no external power supply is needed.

2. Connect your ADAT or S/PDIF compatible devices (e.g., preamps, converters, digital mixers) to the optical input and output ports on the Digiface USB. Use high-quality optical cables for optimal signal integrity.
3. Connect headphones to the 3.5mm headphone jack for direct monitoring.

3. Operating the Digiface USB

3.1 TotalMix Software

The RME Digiface USB is controlled via RME's TotalMix FX software, a powerful digital mixer and routing matrix. TotalMix FX allows for comprehensive control over all inputs and outputs, enabling flexible routing, sub-mixing, and monitoring without latency.

- **Input Channels:** Represent the physical inputs from your connected ADAT/S/PDIF devices.
- **Software Playback Channels:** Represent the audio outputs from your computer's Digital Audio Workstation (DAW) or other applications.
- **Hardware Output Channels:** Represent the physical outputs of the Digiface USB to your monitoring system or other devices.

Familiarize yourself with the TotalMix FX interface to manage signal flow, create independent sub-mixes for performers, and apply effects (if using TotalMix FX with DSP capabilities, though Digiface USB is primarily a routing device).

3.2 ADAT and S/PDIF Operation

The Digiface USB supports both ADAT and S/PDIF optical formats. The device automatically detects the incoming signal type. For ADAT, it supports SMUX (Sample Multiplexing) and SMUX4, allowing for higher sample rates (88.2/96 kHz and 176.4/192 kHz respectively) by reducing the number of available channels per optical port.

- At 44.1/48 kHz, each optical port provides 8 channels (ADAT) or 2 channels (S/PDIF).
- At 88.2/96 kHz (SMUX), each optical port provides 4 channels (ADAT).
- At 176.4/192 kHz (SMUX4), each optical port provides 2 channels (ADAT).

Ensure that the sample rate settings in your DAW and the Digiface USB (via TotalMix FX) match the sample rate of your connected optical devices.

4. Maintenance

Proper maintenance ensures the longevity and optimal performance of your RME Digiface USB.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Avoid liquid cleaners or abrasive materials.
- **Ventilation:** Ensure the device has adequate airflow around it to prevent overheating, especially during extended operation.
- **Cable Management:** Keep optical and USB cables organized and free from kinks or excessive bending to prevent damage.
- **Driver Updates:** Regularly check the RME website for updated drivers and firmware. Keeping your drivers current can improve performance, stability, and compatibility with new operating systems or software.
- **Storage:** When not in use, store the device in a cool, dry place, away from direct sunlight and extreme temperatures.

5. Troubleshooting

This section addresses common issues you might encounter with your Digiface USB.

5.1 No Audio Output/Input

- **Check Connections:** Ensure all optical and USB cables are securely connected.
- **Driver Status:** Verify that the RME drivers are correctly installed and recognized by your operating system. Check Device Manager (Windows) for any error indicators.
- **TotalMix FX Settings:** Open TotalMix FX and check the routing matrix. Ensure that inputs are routed to outputs and that fader levels are not at minimum.
- **Sample Rate Mismatch:** Confirm that the sample rate in TotalMix FX, your DAW, and your connected optical devices are all set to the same value.
- **Clock Synchronization:** Ensure proper clock synchronization between the Digiface USB and your connected ADAT/S/PDIF devices. The Digiface USB can act as the master clock, or it can sync to an external clock source.

5.2 Device Not Recognized

- **USB Port:** The Digiface USB is designed for USB 2.0. While it may function with USB 3.0 ports, some systems might experience compatibility issues. Try connecting to a dedicated USB 2.0 port if available.
- **Reinstall Drivers:** If the device is not recognized after initial installation, try uninstalling and reinstalling the drivers.
- **Different USB Cable/Port:** Test with a different USB cable or a different USB port on your computer.
- **Computer Restart:** A full system restart can often resolve recognition issues.

5.3 Intermittent Audio or Dropouts

- **Buffer Size:** In your DAW or audio settings, try increasing the ASIO buffer size. A smaller buffer size can lead to lower latency but requires more processing power and can cause dropouts if the system is overloaded.
- **System Resources:** Close unnecessary applications running in the background to free up CPU and RAM.
- **Optical Cable Quality:** Damaged or low-quality optical cables can cause signal degradation. Inspect cables for damage and replace if necessary.

6. Specifications

Feature	Detail
Brand	RME
Model Number	DigifaceUSB
Connectivity Technology	USB 2.0
Hardware Interface	USB
Number of Channels	64 (32 In / 32 Out)
Supported Software	ADAT, S/PDIF (via TotalMix FX)
Max Sample Rate	192 kHz
Bit Depth	24-bit
Item Weight	1.85 pounds
Product Dimensions	3.82 x 11.65 x 6.77 inches

Feature	Detail
Operating System	Windows (refer to RME for macOS compatibility)
First Available Date	October 15, 2015

7. Warranty and Support

For detailed warranty information, please refer to the warranty card included with your product or visit the official RME website. Warranty terms and conditions may vary by region.

For technical support, driver updates, and additional resources, please visit the RME support page or contact RME customer service directly:

- RME Official Website: www.rme-audio.de
- RME Store (for product information): RME Store on Amazon

When contacting support, please have your product model (DigifaceUSB) and serial number ready.