IVANKY VCD21

IVANKY 13-in-1 Docking Station for Mac mini M4/M4 Pro

Model: VCD21 | Brand: IVANKY

1. INTRODUCTION

The IVANKY 13-in-1 Docking Station is designed to expand the connectivity and storage capabilities of your Mac mini M4 or M4 Pro. This dock integrates seamlessly with your Mac mini, providing a wide array of ports and an M.2 NVMe SSD enclosure to enhance your workflow and productivity.

This manual provides detailed instructions for setting up, operating, and maintaining your IVANKY docking station, along with troubleshooting tips and product specifications.

2. PRODUCT FEATURES

- **13-in-1 Connectivity:** Features a comprehensive selection of ports including HDMI, USB-A, USB-C, SD/TF card readers, and dual audio ports.

- **High-Speed Data Transfer:** Equipped with 10 Gbps USB-A and USB-C ports, and upgraded SD/TF 4.0 card readers for rapid data transfer.

- **M.2 NVMe SSD Enclosure:** Supports M.2 NVMe and SATA SSDs up to 8TB, offering 10Gbps transfer speeds for expanded storage. Compatible with 2230/2242/2260/2280 form factors.

- **4K@120Hz HDMI Output:** Delivers crisp 4K resolution at a 120Hz refresh rate for smooth visual experiences, ideal for professionals and creators. Supports dual displays when connected to the Mac mini's Thunderbolt port.

- **Sufficient Power Supply:** Includes a 20W PD power adapter to ensure stable power delivery, especially when connecting multiple high-power devices.

- **Optimized Cooling System:** Features a top-vent design and slight elevation to facilitate airflow, protecting the Mac mini's bottom fan and ensuring reliable performance.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- 1 x IVANKY 13-in-1 Docking Station (FusionDock)

- 1 x 20W Power Adapter

- 1 x 25cm USB-C Cable

- 1 x Screwdriver

- Screws for SSD installation

Note: SSD is not included with this product.
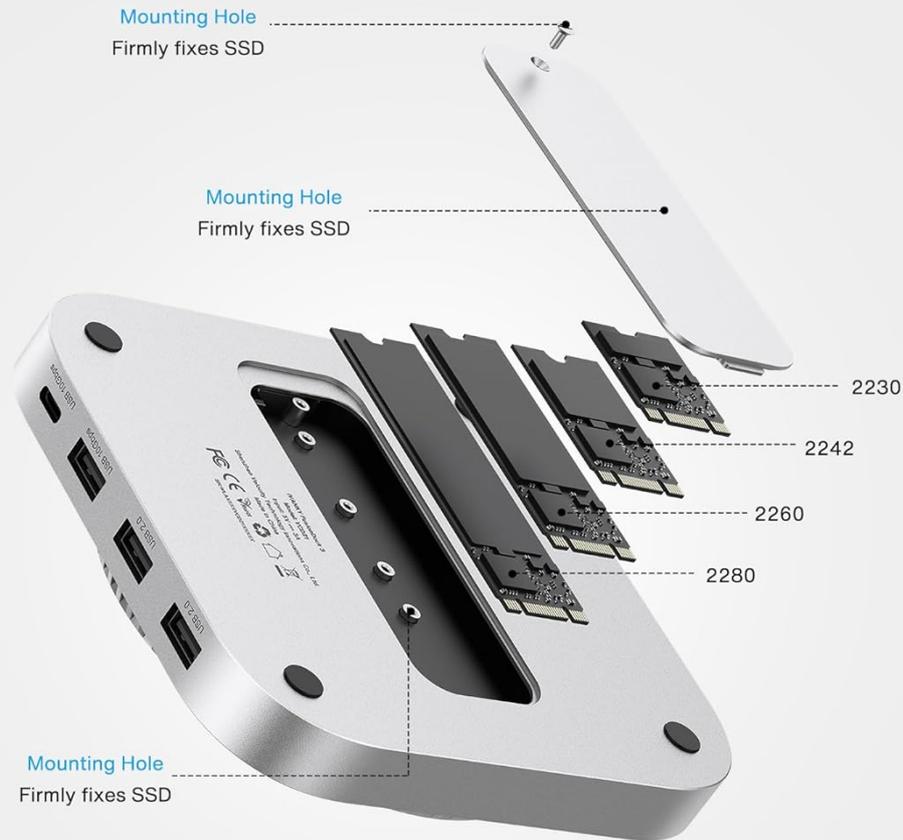
4. Setup Instructions

4.1. SSD Installation

To expand your storage, follow these steps to install an M.2 SSD:

1. Carefully turn the docking station upside down.

2. Locate the SSD cover on the bottom of the dock. Use the provided screwdriver to remove the screw securing the cover.

3. Remove the SSD cover.

4. Insert your M.2 NVMe or SATA SSD into the slot. Ensure it is fully seated.

5. Secure the SSD with the provided screw.

6. Replace the SSD cover and secure it with its screw.

Fits M.2SSD(NVMe Pcie/NGFF SATA)

Supports 10Gbps Speed

Storage Expanson UP TO 8TB

Mounting Hole
Firmly fixes SSD

Mounting Hole
Firmly fixes SSD

2230

2242

2260

2280

Mounting Hole
Firmly fixes SSD

*SSDs are not included with this product   *Comes with Miniscrewdriver and screw

Figure 1: SSD Installation Diagram. The image illustrates how to open the SSD compartment, insert an M.2 SSD, and secure it with a screw. Various SSD sizes (2230, 2242, 2260, 2280) are indicated as compatible.

4.2. Connecting the Dock to Mac mini

Follow these steps to connect your Mac mini to the docking station:

1. Connect the 20W power adapter to the provided 1m USB-C cable.

2. Connect the other end of the USB-C cable to the 'PD IN' port on the docking station.

3. Plug the power adapter into a wall socket.

4. Place your Mac mini M4 or M4 Pro directly on top of the IVANKY docking station. The dock is designed to fit perfectly underneath the Mac mini.

5. Use the provided 25cm USB-C cable to connect the Mac mini's Thunderbolt port to the 'Mac mini' port on the docking station. This establishes the primary connection for data and display.
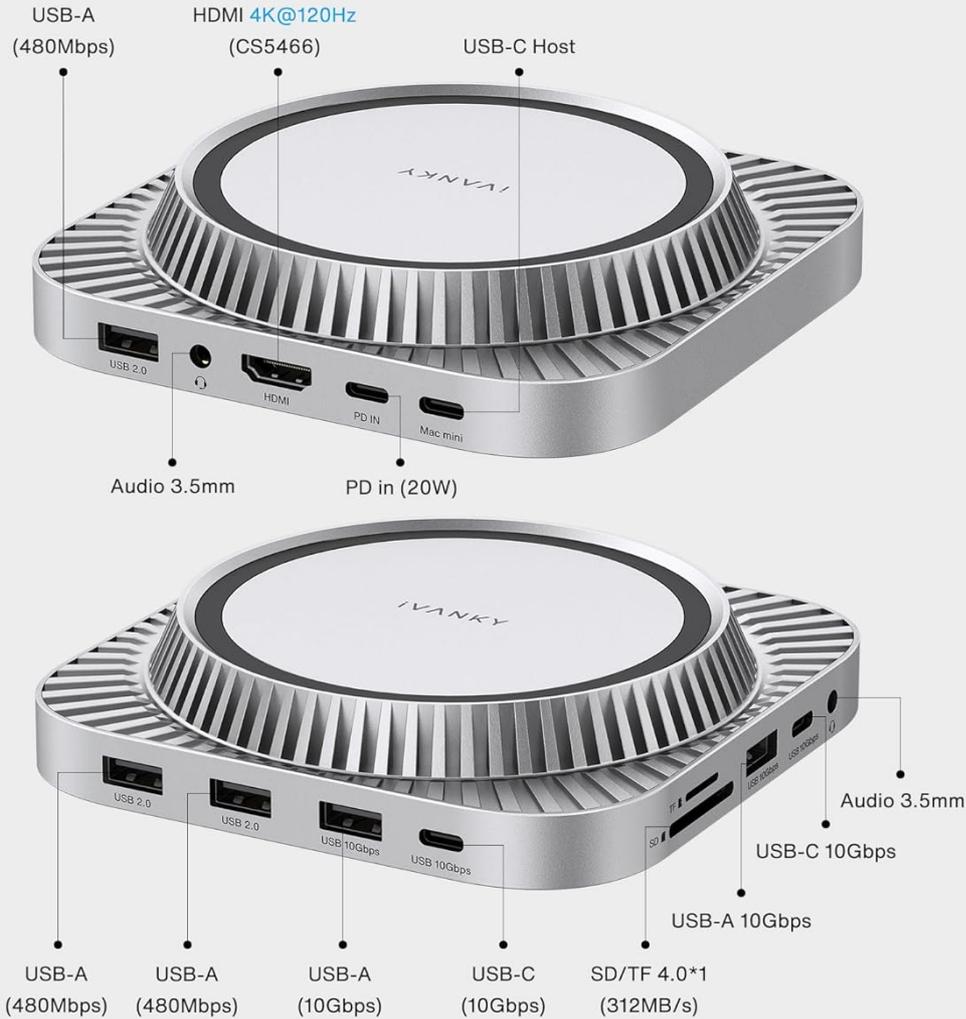
Figure 2: Docking Station Port Layout. This image displays the various ports available on the docking station, including USB-A, USB-C, HDMI, audio, PD In, and the Mac mini host connection.

4.3. Quick Installation Video

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Video 1: Installing Your SSD. This video demonstrates the step-by-step process of installing an M.2 SSD into the IVANKY docking station.

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Video 2: Quick Installation for iVANKY Fusion Dock 3. This video provides a concise guide on how to set up and connect the IVANKY Fusion Dock 3 to your Mac mini.

5. OPERATING INSTRUCTIONS

5.1. Port Usage

The docking station provides the following ports:

- **HDMI (4K@120Hz):** Connect an external monitor for high-resolution video output.

- **USB-A 10Gbps (x2):** For high-speed peripherals like external hard drives.

- **USB-C 10Gbps (x2):** For high-speed USB-C devices.

- **USB-A 2.0 (x3):** For standard peripherals such as keyboards, mice, and printers.

- **SD/TF 4.0 Card Reader:** For fast access to SD and microSD cards.

- **Dual Audio Ports:** For connecting headphones, microphones, or speakers.

- **PD IN (20W):** Connect the included power adapter for stable operation.

- **USB-C Host (Mac mini):** Connects to your Mac mini's Thunderbolt port.

5.2. Display Connection

Connect your monitor to the HDMI port on the docking station. For dual display setups, connect the dock's HDMI port to your Mac mini's Thunderbolt port. This configuration allows for extended display functionality at 4K@120Hz, providing a smooth visual experience for various tasks.

Figure 3: 4K@120Hz Visual Experience. This image demonstrates the docking station's capability to support high-refresh-rate 4K displays, enhancing productivity for creative and professional tasks.

5.3. Data Transfer

Utilize the 10Gbps USB-A and USB-C ports for transferring large files quickly to and from high-performance drives. The SD/TF 4.0 card readers also offer enhanced speeds for memory cards. The integrated M.2 SSD enclosure provides 10Gbps data transfer for installed SSDs.

Figure 4: 10Gbps Fast Data Transfer. This graphic highlights the high-speed data transfer capabilities of the docking station's USB 3.1 ports and SD/TF 4.0 card readers, showing a significant speed increase over USB 2.0.

5.4. Power Supply

The included 20W PD power adapter is crucial for maintaining power stability, especially when multiple high-power devices (e.g., external hard drives, charging peripherals) are connected to the dock. Always use the matching cable and adapter to prevent power-related issues.

6. MAINTENANCE

To ensure the longevity and optimal performance of your IVANKY docking station:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Avoid liquid cleaners or abrasive materials.
- **Ventilation:** Ensure the top-vent design is not obstructed to allow for proper airflow and cooling. The slight

elevation of the dock helps safeguard the Mac mini's bottom fan.

- **Storage:** Store the device in a cool, dry place when not in use.
- **Cable Management:** Keep cables organized and free from kinks or excessive bending to prevent damage.

Figure 5: Optimized Cooling Solution. This image visually explains how the docking station's design promotes airflow to cool the Mac mini, ensuring stable operation.

7. TROUBLESHOOTING

- **No Power/Device Not Recognized:** Ensure the 20W PD power adapter is correctly connected to the dock and a power outlet. Verify the 25cm USB-C cable is securely connected between the Mac mini and the dock.
- **SSD Not Detected:** Check that the M.2 SSD is properly installed and secured within the enclosure. Ensure the SSD is compatible (NVMe or SATA M.2). Try re-seating the SSD.
- **Display Issues (No Signal/Incorrect Resolution):** Confirm the HDMI cable is securely connected to both the dock and the monitor. Ensure the Mac mini's display settings are configured correctly for the external monitor. If using dual displays, ensure the dock's HDMI is connected to the Mac mini's Thunderbolt port.
- **Overheating:** While the dock has an optimized cooling system, ensure it is placed on a flat, stable surface

with adequate ventilation. Avoid placing it in enclosed spaces. If an SSD is installed, prolonged heavy use can generate heat; ensure the SSD is properly seated and the cover is secured.

- **Slow Data Transfer:** Ensure you are using the 10Gbps USB-A/C ports for high-speed devices. Check that your connected devices and cables support the advertised speeds.

8. SPECIFICATIONS

Feature	Specification
Model Number	VCD21
Total Ports	13
HDMI Output	1 x 4K@120Hz
USB-A Ports	2 x 10Gbps, 3 x 5Gbps (USB 2.0)
USB-C Ports	2 x 10Gbps
SD/TF Card Reader	1 x SD/TF 4.0 (312MB/s)
Audio Ports	2 (3.5mm)
SSD Enclosure	M.2 NVMe/SATA (up to 8TB, 10Gbps)
Power Delivery	20W PD Power Adapter included
Compatible Devices	Mac mini M4, Mac mini M4 Pro
Dimensions	7.6 x 6.93 x 2.2 inches
Item Weight	1.39 pounds

9. WARRANTY AND SUPPORT

IVANKY offers a 24-month warranty for this product, along with responsive customer service. Should you experience any issues with your product, we provide free returns or replacements to ensure your complete satisfaction.

For technical support or warranty claims, please contact us:

- **Email:** support@ivanky.com
- Customer service response time is typically within 24 hours.
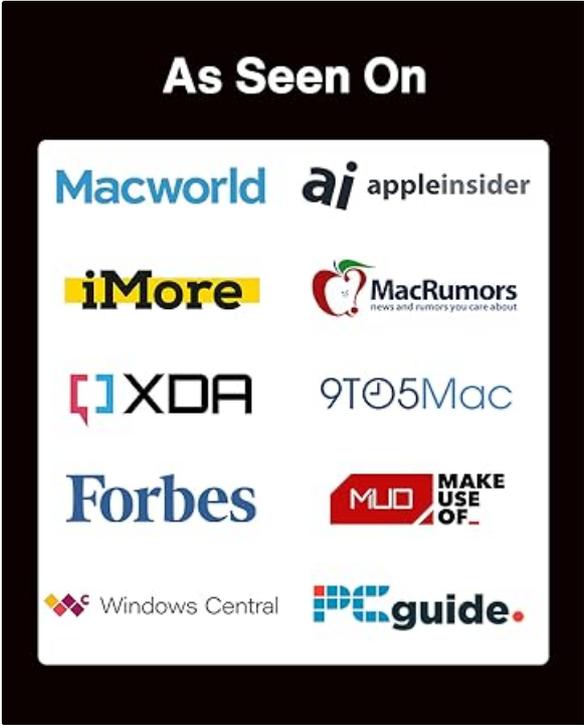- Lifetime technical support is provided.

Figure 6: IVANKY Customer Support Information. This image provides details on how to contact IVANKY for support, including email and warranty information.