ICY DOCK MB839SP-B

ICY DOCK MB839SP-B User Manual

2.5 INCH SATA SSD REMOVABLE HARD DRIVE BAY ADAPTER FOR PCIE EXPANSION CARD SLOT

1. Introduction

The ICY DOCK MB839SP-B is a 2.5-inch SATA SSD/HDD removable drive bay adapter designed to fit into a standard PCIe expansion card slot. This device allows for the integration of a 2.5-inch SATA drive into systems with limited drive bays, utilizing an available PCIe slot for both power and data transfer. It supports hot-swapping of drives, making it suitable for various applications requiring flexible storage solutions.

Image 1.1: Front view of the ICY DOCK MB839SP-B with a 2.5-inch SSD installed.

2. Features

- **Durable Construction:** Features a full metal construction, ensuring durability and suitability for various professional and industrial applications.

- **Drive Compatibility:** Accommodates one 2.5-inch SATA hard drive or SSD with heights ranging from 7mm to 9.5mm.

- **PCIe Interface:** Utilizes a PCIe 2.0 x1 interface, compatible with PCIe 2.0 and PCIe 3.0 x1, x4, x8, and x16 slots.

- **Reduced Cable Clutter:** The PCIe interface provides both power and data transfer, minimizing internal cable requirements.

- **Hot-Swap Capability:** Equipped with a robust hot-swap connector rated for a minimum of 10,000 insertion/removal cycles.

- **Optimal Cooling:** Designed with large ventilation holes on both sides and ample front ventilation for effective heat dissipation.

- **Drive Protection:** Ruggedized metal chassis, drive tray, and mounting bracket contribute to a long product life and EMI grounding.

- **Optional Drive Status LED:** Provides an optional output for a drive status LED signal.

Side Ventilation Holes

Front Ventilation Holes

Maximum Heat Disspation

Large ventilation holes on both sides
and amply front ventilation holes for optimal cooling
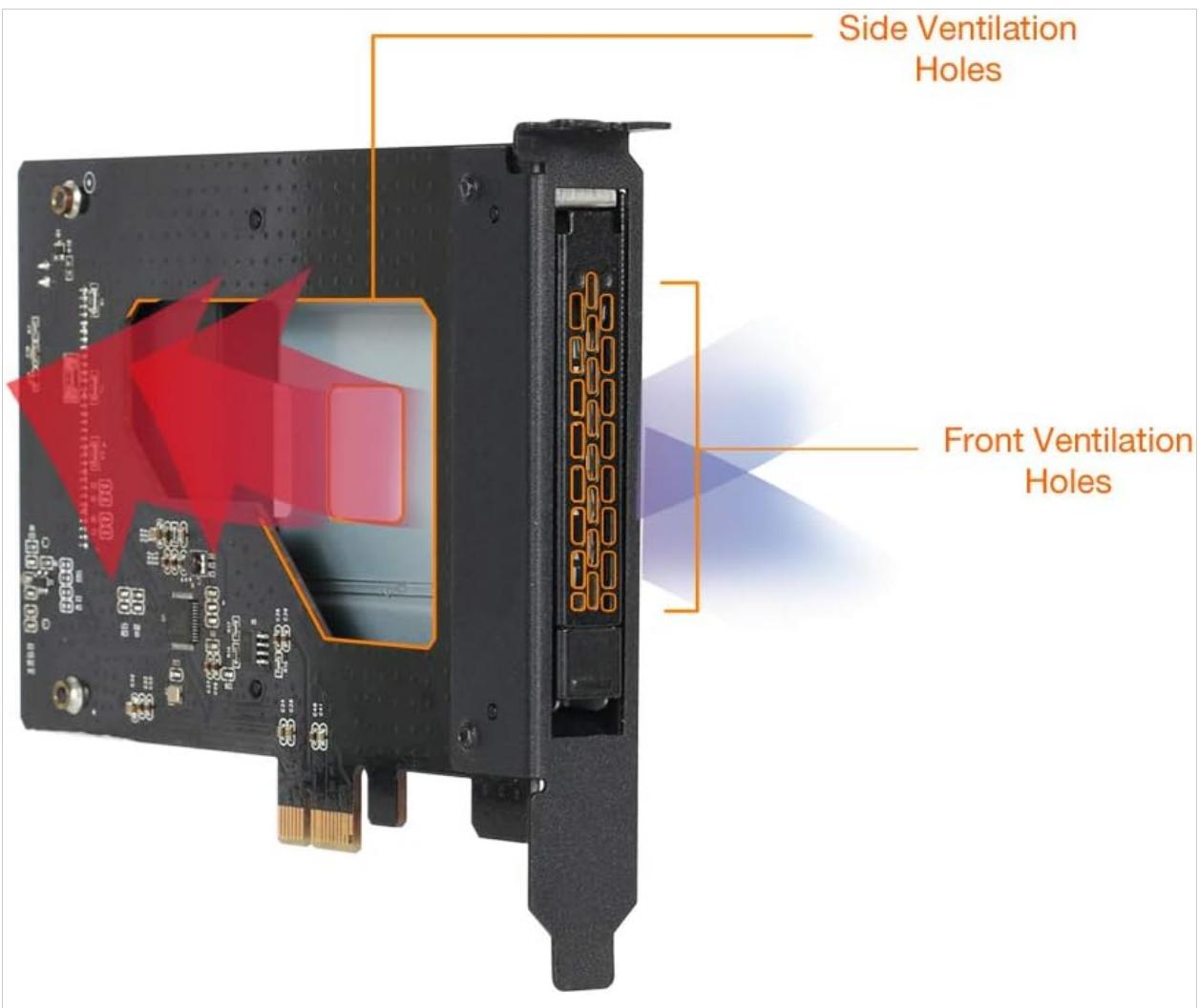
Image 2.1: Illustration of the ventilation design for maximum heat dissipation.

Metal Chassis Construction
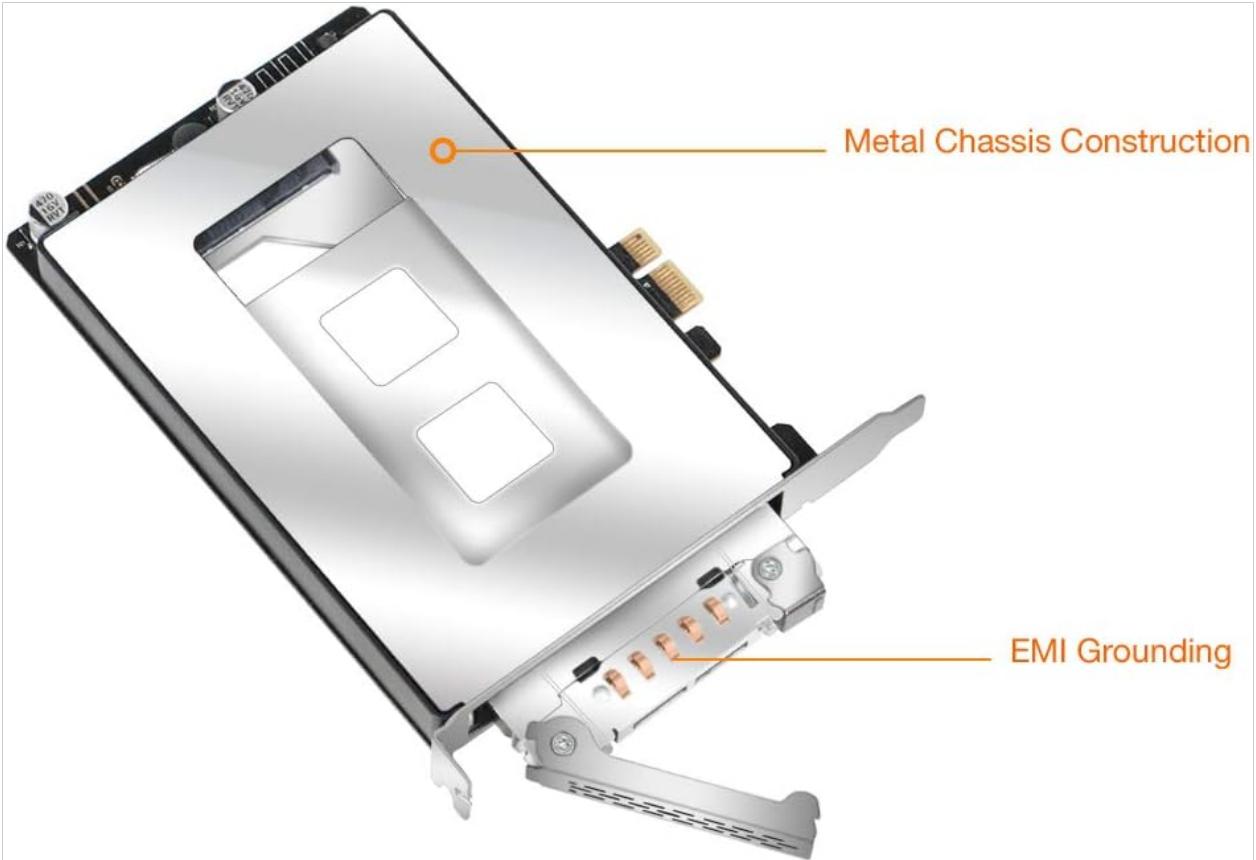
EMI Grounding

Maximum Drive Protection

Ruggedized metal chassis, tray, and mounting bracket
ensure a long product life

Image 2.2: Detail of the metal chassis construction and EMI grounding for drive protection.

3. Package Contents

Verify that all items are present in the package:

- ICY DOCK MB839SP-B Device
- User Manual (this document)
- Mounting Screws
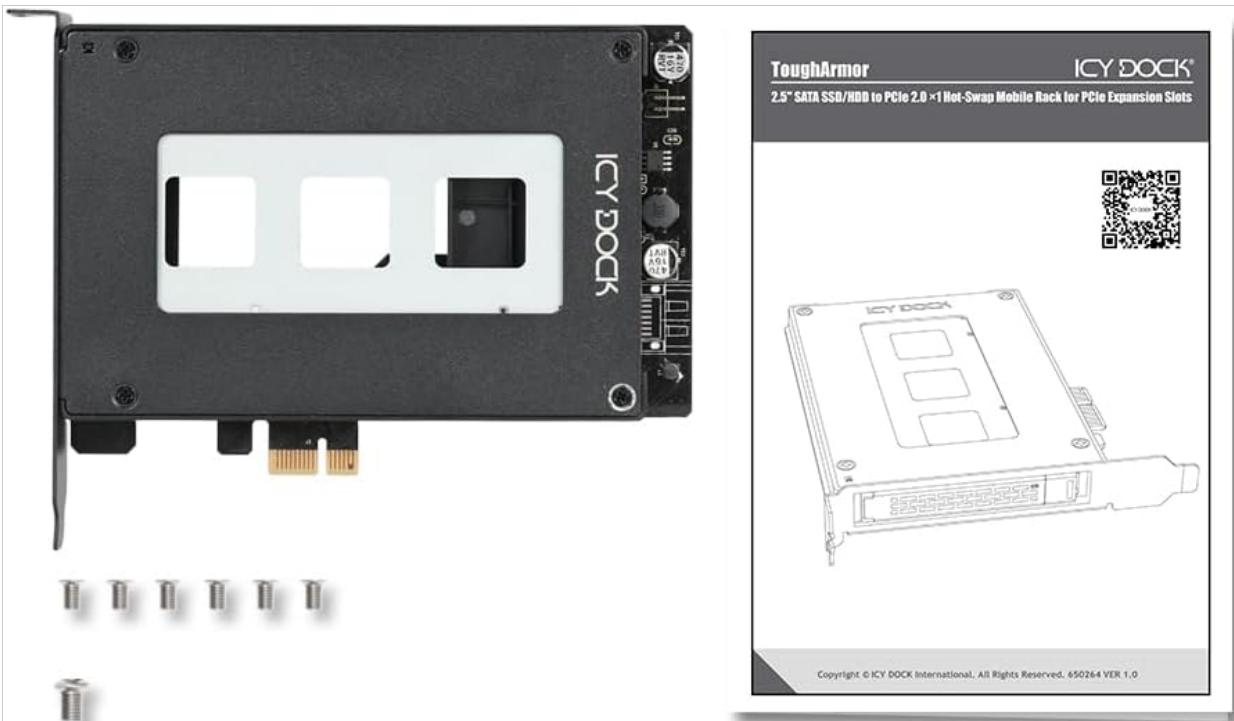
Package Content
Device / User Manual / Screws

Image 3.1: Package contents including the MB839SP-B device, user manual, and mounting screws.

4. Setup and Installation

Follow these steps to install the MB839SP-B into your system and insert a 2.5-inch SATA drive.

1. **Prepare Your System:** Power off your computer and disconnect all cables. Open the computer case to access the motherboard and PCIe slots.

2. **Identify a PCIe Slot:** Locate an available PCIe 2.0 or 3.0 slot (x1, x4, x8, or x16). Remove the corresponding expansion slot cover from your computer case.

3. **Install the MB839SP-B:** Carefully align the MB839SP-B with the chosen PCIe slot and press it firmly until it is securely seated. Secure the adapter to the case with a screw.

Perfect for Small Form Factor Systems
Expand additional storage to your PCIe expansion slot

Image 4.1: The MB839SP-B installed in a small form factor system, demonstrating its compact integration.

4. **Prepare the 2.5-inch Drive:** Ensure your 2.5-inch SATA SSD or HDD is between 7mm and 9.5mm in height.

5. **Insert the Drive:** Open the drive tray latch on the MB839SP-B. Slide your 2.5-inch drive into the tray until it clicks into place. Close the latch to secure the drive.

Image 4.2: Demonstrating the hot-swappable design, showing a drive being inserted into the bay.

6. **Close Case and Power On:** Close your computer case, reconnect all cables, and power on your system. The newly installed drive should be detected by your operating system.

5. Operating Instructions

The MB839SP-B is designed for straightforward operation, particularly with its hot-swap functionality.

- **Drive Detection:** Once installed and powered on, the system should automatically detect the 2.5-inch SATA drive inserted into the MB839SP-B. You may need to initialize and format new drives through your operating system's disk management tools.

- **Hot-Swapping Drives:** To remove a drive while the system is running, ensure the drive is not actively being used. Safely eject the drive through your operating system (if applicable) before opening the latch and pulling out the drive. To insert a new drive, simply slide it into the bay until it locks, then close the latch. The system should detect the new drive.

- **LED Indicator (Optional):** If an optional drive status LED is connected, it will indicate drive activity.

6. Maintenance

To ensure optimal performance and longevity of your ICY DOCK MB839SP-B, consider the following maintenance guidelines:

- **Keep Clean:** Periodically clean the exterior of the device and surrounding areas within your PC case to prevent dust buildup, which can impede airflow and cooling. Use compressed air for hard-to-reach areas.

- **Environmental Conditions:** Operate the device within recommended temperature and humidity ranges for computer components.
- **Handle with Care:** When inserting or removing drives, do so gently to avoid damaging the hot-swap connector or the drive itself.

7. Troubleshooting

If you encounter issues with your MB839SP-B, refer to the following common troubleshooting steps:

- **Drive Not Detected:**

    - Ensure the MB839SP-B is fully seated in the PCIe slot.
    - Verify the 2.5-inch drive is correctly inserted into the bay and the latch is closed.
    - Check your system's BIOS/UEFI settings to ensure the PCIe slot is enabled and functioning.
    - Test with a different known-good 2.5-inch SATA drive.
    - Confirm the drive height is between 7mm and 9.5mm. Drives outside this range may not fit or connect properly.

- **Slow Performance:**

    - Ensure your motherboard's PCIe slot is operating at its full speed (e.g., PCIe 2.0 x1).
    - Check for updated motherboard chipset drivers.
    - Verify the SATA drive itself is performing as expected.
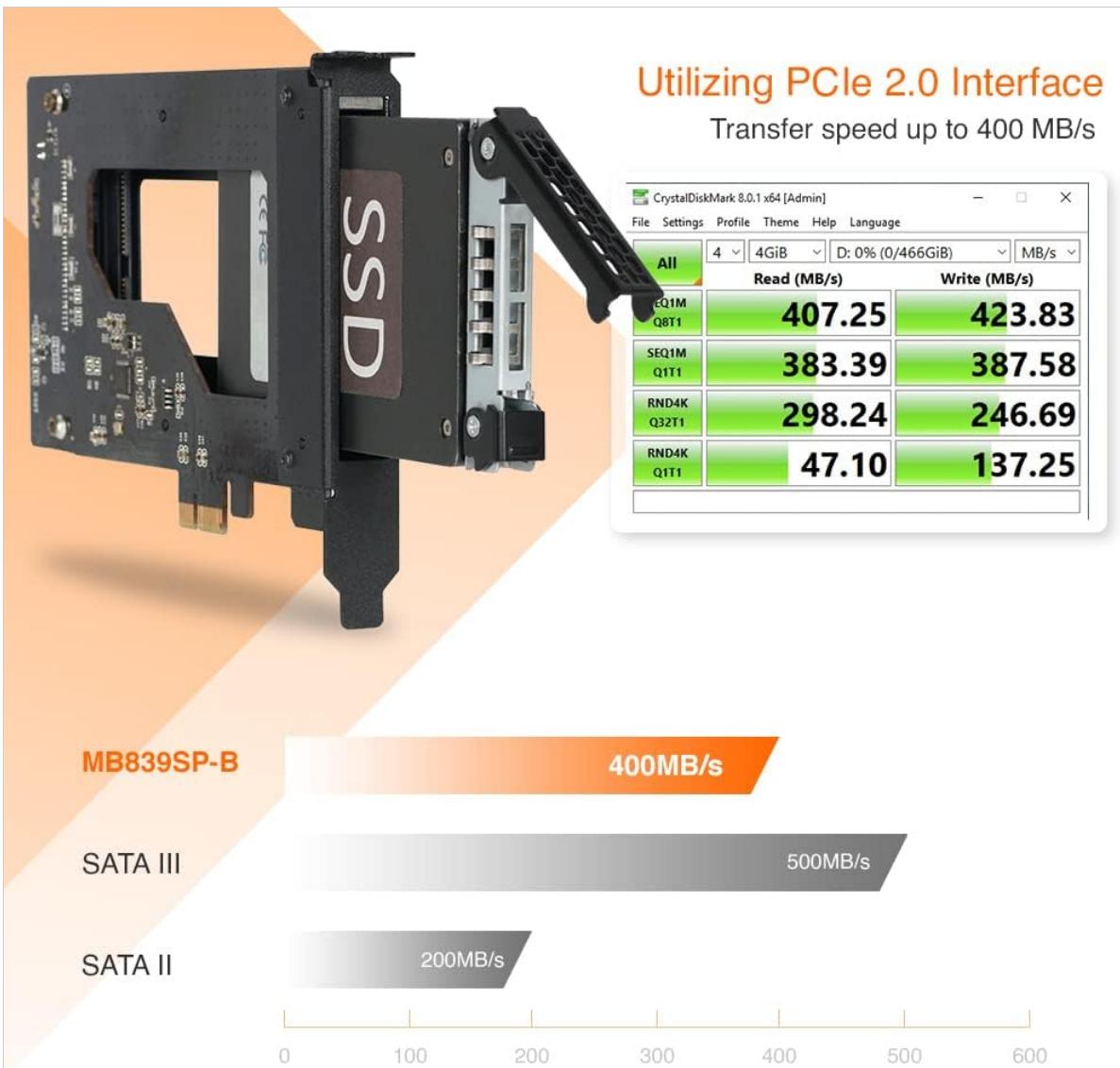
Image 7.1: Performance comparison illustrating typical transfer speeds for the MB839SP-B.

- **Tight Drive Fit:**

  - Some 9.5mm drives may have a very snug fit. Apply gentle, even pressure when inserting or removing. Avoid forcing the drive.

8. Specifications

Feature	Specification
Model Number	MB839SP-B
Compatible Drive Type	2.5-inch SATA SSD/HDD
Drive Height Support	7mm to 9.5mm
Interface	PCI Express x1 (PCIe 2.0)
Supported PCIe Slots	PCIe 2.0/3.0 x1, x4, x8, x16
Material	Metal
Item Weight	9.8 ounces (277 Grams)

Package Dimensions	8.7 x 1.42 x 1.3 inches
Manufacturer	ICYDOCK

Maximum Compatibility

Designed for the PCIe 2.0 and 3.0 single-channel (x1) interface,
as well as PCIe x4, x8, x16 full-length PCIe slots.
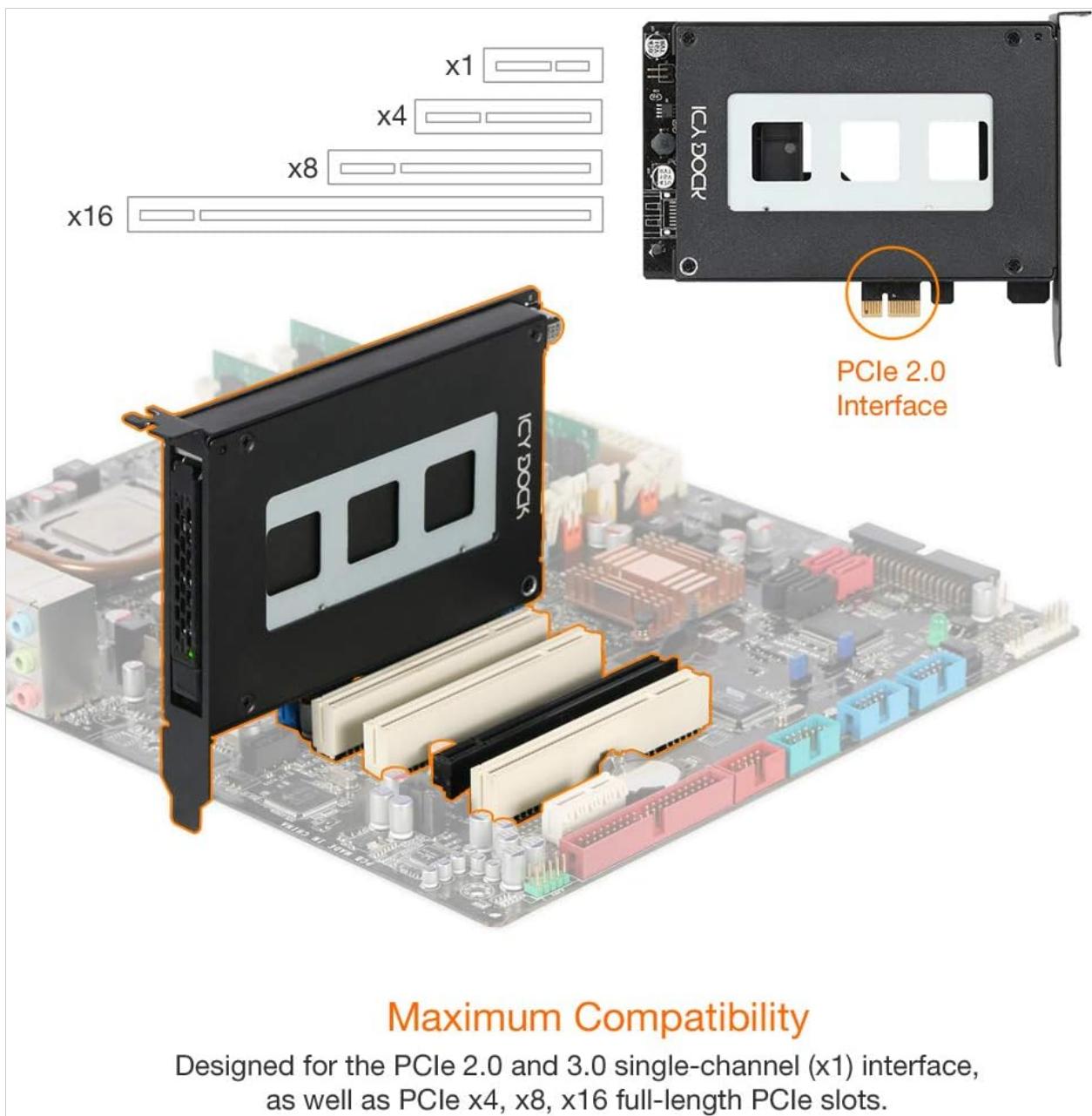
Image 8.1: Illustration of PCIe 2.0 interface and compatibility with different PCIe slot configurations.

Image 8.2: Detail of the PCIe 2.0 interface and the optional drive status LED signal output.

9. Warranty and Support

For warranty information, technical support, or further assistance, please refer to the official ICY DOCK website or contact their customer service. You can also visit the ICY DOCK Store on Amazon for product details and support resources.

A PDF version of the user manual is available for download:User Manual (PDF).