MZHOU PCIe SATA Card 6 Ports

MZHOU PCIe SATA Card 6 Ports (ASM1166 Chip) Instruction Manual

Model: PCIe SATA Card 6 Ports

1. Introduction and Overview

The MZHOU PCIe SATA Card is designed to expand your computer's storage capabilities by adding six 6 Gbps SATA 3.0 ports. This card utilizes the ASM1166 chip for enhanced stability and compatibility. It supports hot-swapping of devices and offers a transmission speed of up to 6.0 Gbps/s. The card is compatible with various PCI-E slots (1X, 4X, 8X, 16X) and operates across multiple systems including Windows XP, 7, 8, 10, and Linux.

Image 1.1: MZHOU SATA 3.0 Expansion Card overview, highlighting 6 ports, 108TB capacity, 6Gbps speed, and multi-system support.

2. Package Contents

Please verify that all items are present in the package:

- 1 x MZHOU 6-Port SATA 3.0 Controller Card
- 6 x SATA Data Cables
- 1 x Low Profile Bracket

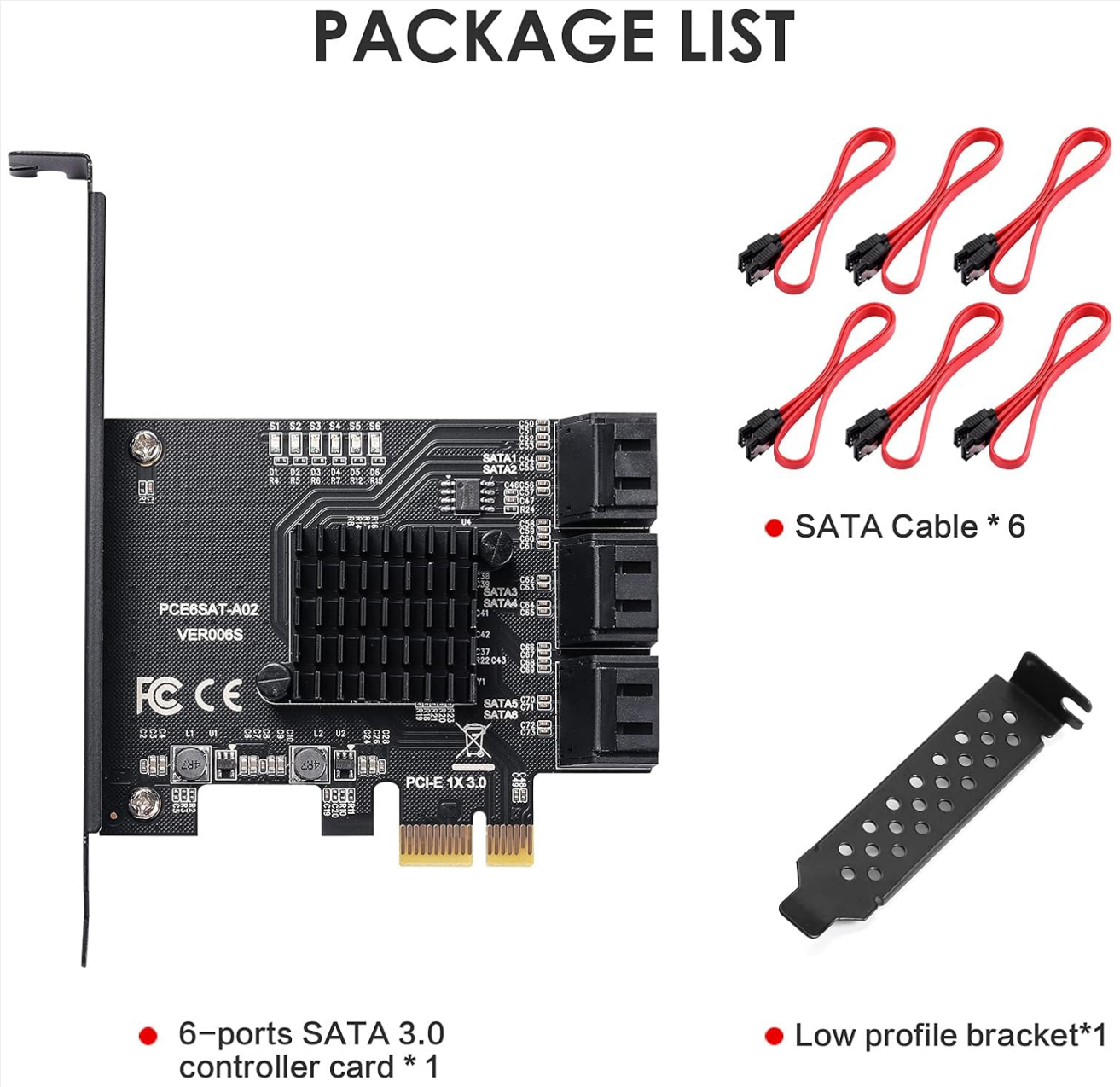

Image 2.1: Contents of the product package, including the SATA controller card, six SATA cables, and a low profile bracket.

3. Setup and Installation

3.1 Installing the PCIe SATA Card

1. **Power Off and Disconnect:** Ensure your computer is completely powered off and disconnected from the power source before opening the case.
2. **Open Computer Case:** Remove the side panel of your computer case to access the motherboard.
3. **Locate an Available PCIe Slot:** Identify an available PCI-Express slot (PCI-E 1X, 4X, 8X, or 16X) on your

motherboard.

4. **Insert the Card:** Gently align the PCIe SATA card with the chosen slot and press down firmly until it is securely seated. Ensure the gold contacts are fully inserted into the slot.
5. **Secure the Card:** Use a screw to secure the card's bracket to the computer case.

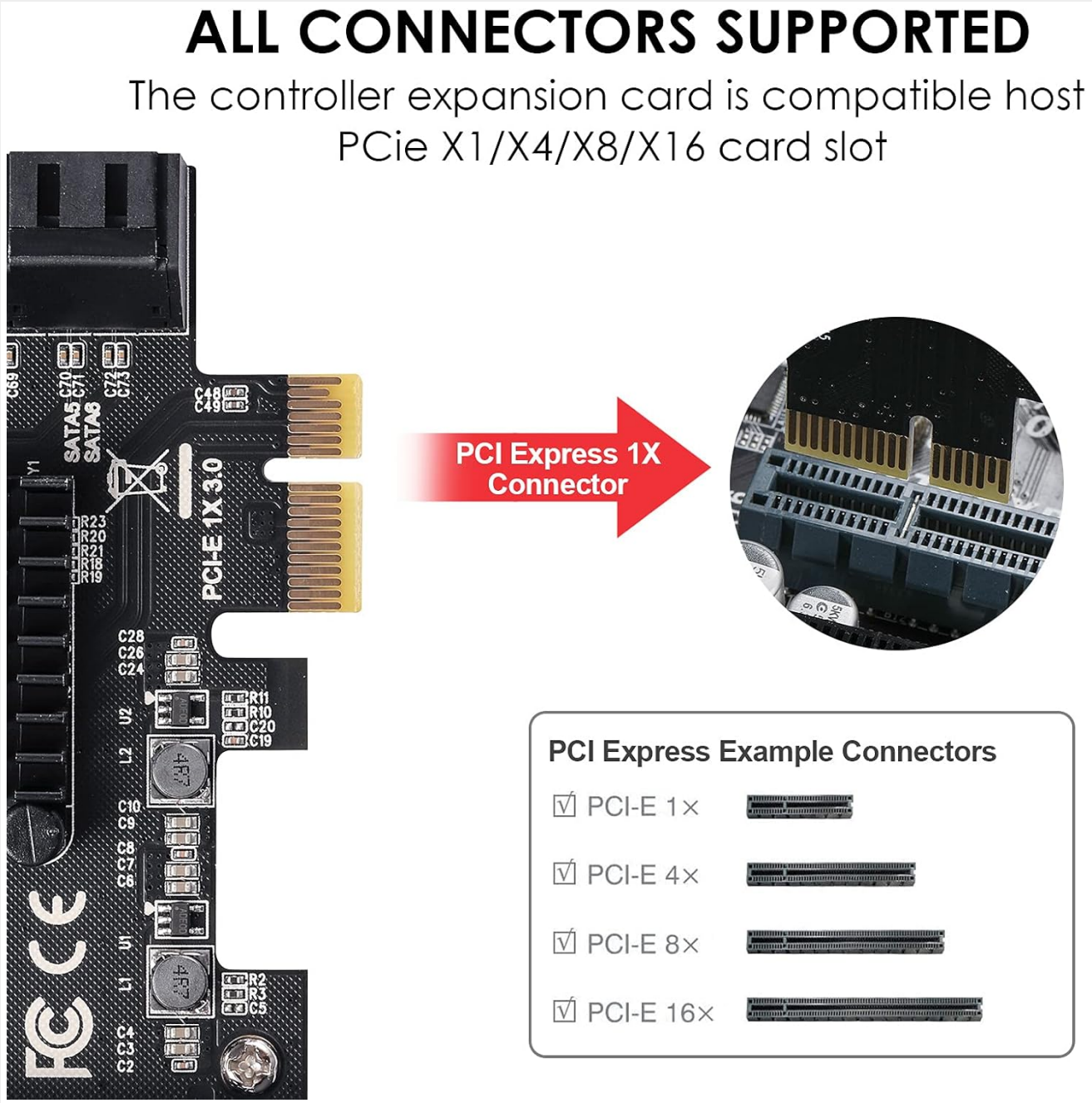

Image 3.1: Illustration of inserting the PCIe card into a compatible PCI Express slot on a motherboard.

3.2 Connecting SATA Devices

Connect your SATA 3.0 devices (HDDs, SSDs) to the available SATA ports on the expansion card using the provided SATA cables. The card supports up to six SATA devices simultaneously.

Image 3.2: The PCIe SATA card with six SATA ports, demonstrating connection points for SATA devices.

3.3 Low Profile Bracket Installation (Optional)

If your computer case requires a low-profile bracket, remove the standard bracket from the card and attach the included low-profile bracket using the provided screws.

4. Operating Instructions

4.1 System Compatibility

The MZHOU PCIe SATA Card is compatible with the following operating systems:

- Windows XP / 7 / 8 / 10
- Linux

For Windows 7, driver installation may be required. For Windows 8, 10, and Linux, the card is typically plug-and-play, requiring no additional driver installation.

Image 4.1: The PCIe SATA card supporting various operating systems including Windows and Ubuntu.

Image 4.2: Broad compatibility of the card with Windows, Linux, and NAS/Ubuntu systems.

4.2 Hot Swap Functionality

The card supports hot-swapping, allowing you to connect or disconnect SATA devices while the system is running, provided your operating system and motherboard also support this feature.

5. Maintenance

The MZHOU PCIe SATA Card is designed for reliable operation with minimal maintenance. The integrated heat sink effectively reduces the chip temperature, contributing to stable performance.

- **Keep Clean:** Periodically inspect the card and surrounding area for dust accumulation. Use compressed air to gently clean the card and its heat sink to ensure optimal cooling.
- **Secure Connections:** Ensure all SATA cables and the PCIe card itself remain securely connected to prevent intermittent issues.

Image 5.1: The heat sink on the ASM1166 chip, designed for effective temperature reduction.

6. Troubleshooting

6.1 System Drive Boot Issues

If you intend to connect your system drive (boot drive) to the PCIe SATA adapter card, consider the following conditions and solutions:

1. The SATA interface mode of the PCIe to SATA 3.0 adapter is AHCI mode. If you want to connect the system drive to the adapter card, your system drive must have been set to AHCI mode when the operating system was installed on the motherboard; otherwise, the system cannot boot through the adapter card.
2. If you are sure that the system drive was installed in AHCI mode on the motherboard's SATA interface, you can directly connect the drive to the adapter card and then enter the motherboard BIOS to set the system drive as the first boot device.
3. If both of the above conditions are met but the system still cannot boot or keeps restarting, it might be due to a conflict between the motherboard's SATA interface and the adapter card. The solution is to enter the motherboard BIOS, set the motherboard's SATA interface option to Disabled, save, and then restart to boot the system.

Conditions and solutions for connecting the system drive to a PCIE to SATA 3.0 adapter card:

1. The SATA interface mode of the PCIE to SATA 3.0 adapter is AHCI mode. If you want to connect the system drive to the adapter card, your system drive must have been set to AHCI mode when the operating system was installed on the motherboard; otherwise, the system cannot boot through the adapter card.

2. If you are sure that the system drive was installed in AHCI mode on the motherboard's SATA interface, you can directly connect the drive to the adapter card and then enter the motherboard BIOS to set the system drive as the first boot device.

3. If both of the above conditions are met but the system still cannot boot or keeps restarting, it might be due to a conflict between the motherboard's SATA interface and the adapter card. The solution is to enter the motherboard BIOS, set the motherboard's SATA interface option to Disabled, save, and then restart to boot the system.

Image 6.1: Important considerations for booting from a drive connected to the adapter card.

6.2 General Connectivity Issues

- **Card Not Detected:** Ensure the PCIe card is fully seated in the motherboard slot. Try a different PCIe slot if available.
- **SATA Devices Not Detected:** Verify that SATA cables are securely connected to both the card and the SATA devices. Check power connections to your SATA devices.
- **Slow Performance:** Ensure you are using SATA 3.0 compatible drives and cables to achieve 6 Gbps speeds. Verify that the card is installed in a compatible PCIe slot.

7. Specifications

Brand	MZHOU
Model Number	PCIe SATA Card 6 Ports
Hardware Interface	PCI-E x 1
Compatible PCIe Slots	PCI-E 1X, 4X, 8X, 16X
SATA Ports	6
SATA Standard	SATA 3.0 (backward compatible with SATA 2.0, SATA 1.0)
Data Transfer Rate	Up to 6 Gbps per port
Chipset	ASM1166
Compatible Devices	Desktop Computers
Operating System Support	Windows XP / 7 / 8 / 10, Linux
Hot Swap Support	Yes
UPC	770346736412
ASIN	B097RBLM9G

Image 7.1: SATA generations and their corresponding transfer rates.

8. Warranty and Support

8.1 Product Warranty

This MZHOU PCIe SATA Card comes with a **1-year warranty** from the date of purchase. Please retain your proof of purchase for warranty claims.

8.2 Customer Support

MZHOU is committed to providing high-quality products and customer service. If you have any questions, encounter issues, or require assistance with your PCIe SATA card, please do not hesitate to contact us. We aim to reply to all inquiries within 12 hours.