

## FebSmart FS-FW400

# FebSmart FS-FW400 PCIE Firewire 400 1394A Expansion Card

User Instruction Manual

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation and operation of your FebSmart FS-FW400 PCIE Firewire 400 1394A Expansion Card. This card allows you to add Firewire 1394A ports to your desktop PC, enabling connectivity with various Firewire-compatible devices such as industrial cameras, HDD storage enclosures, sound cards, and DV camcorders.

## 2. PACKAGE CONTENTS

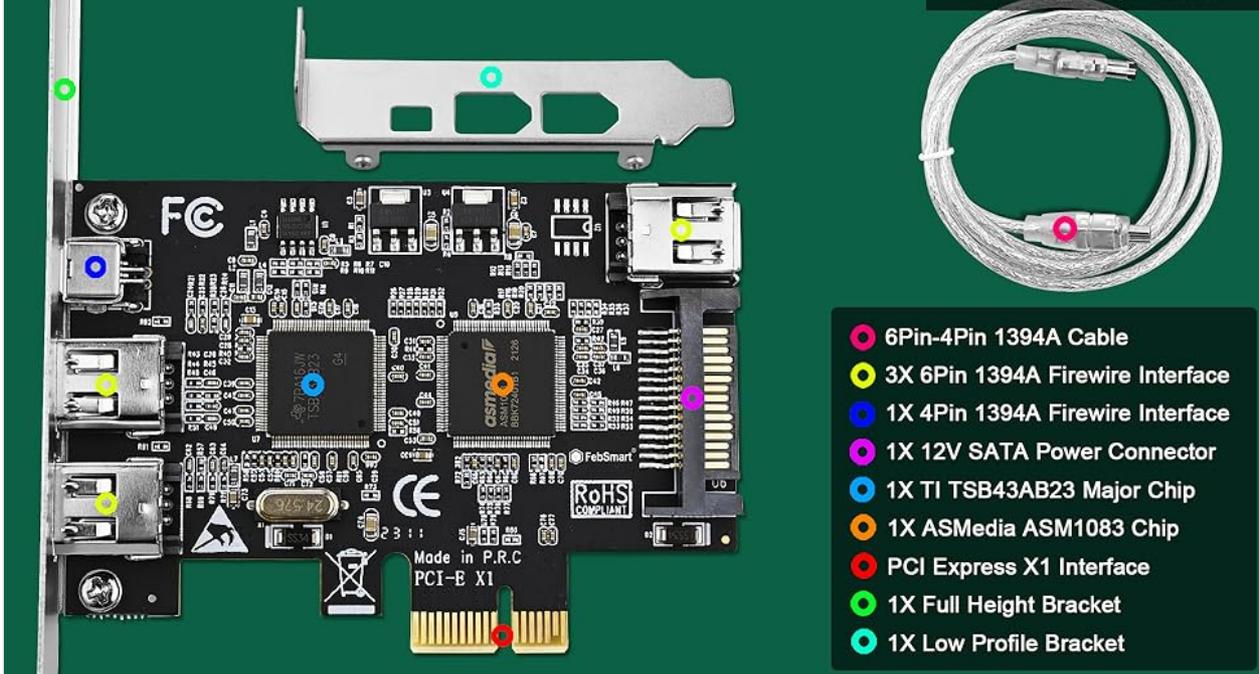
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Please verify that all items are present in your package:

- FebSmart FS-FW400 PCIE Firewire 400 1394A Expansion Card (with full-height bracket pre-installed)
- Low-profile bracket
- 6Pin-4Pin 1394A Firewire Cable

IEEE 1394A Supports 12V Working Power Supply from Motherboard Directly.  
Reserved 12V SATA Power Supply from PSU When Using Heavy Sound Cards.

**FebSmart**<sup>®</sup>  
Make Connection Easy and Effective

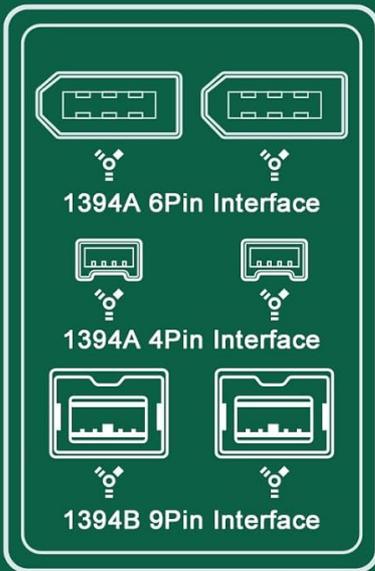


An annotated diagram highlighting the key components of the FS-FW400 card, including the 6-pin and 4-pin Firewire ports, Texas Instruments TSB43AB23 chip, ASMedia AS1083 chip, PCIe X1 interface, SATA power connector, both full-height and low-profile brackets, and the included 6Pin-4Pin 1394A Firewire Cable.

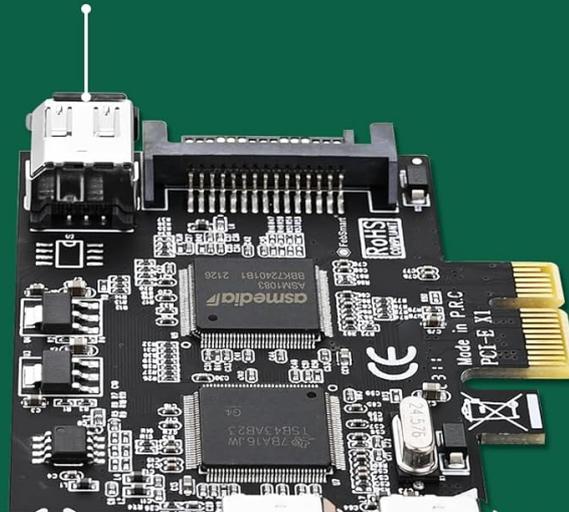
### 3. FEATURES

- Adds 3x 6-Pin and 1x 4-Pin Firewire 1394A ports to desktop PCs.
- Supports a maximum data transfer speed of 400Mbps per port.
- Utilizes Texas Instruments TI TSB43AB23 1394A Firewire host controller and ASMedia AS1083 PCIE bridge controller.
- Compatible with AMD, ARM, Mac, and Intel hardware platforms.
- Fully compliant with IEEE 1394-1995, 1394A-2000, and OHCI (Open Host Controller Interface) 1.1 standards.
- Supports serial bus data transfer rates of 100Mbps, 200Mbps, and 400Mbps.
- Supports connection of up to 63 Firewire 1394A devices.
- PCI Express 1.1 standard, providing 2.5Gbps total bandwidth.
- PCIE X1 interface, compatible with PCIE X1, X2, X4, X8, X16 slots.
- Includes both full-height and low-profile brackets for standard and slim PCs.

Fully Compliant IEEE Firewire 1394-1995, 1394A-2000 and OHCI 1.1 Standards. Supports Serial Bus Data Transfer Rates of 100Mbps, 200Mbps and 400Mbps.



6Pin 1394A



4Pin 1394A

6Pin 1394A

1394A Firewire		400Mbps
1394A Firewire		200Mbps
1394A Firewire		100Mbps

This image illustrates the different Firewire 1394A port types (6-pin and 4-pin) and their corresponding maximum data transfer rates of 100Mbps, 200Mbps, and 400Mbps.

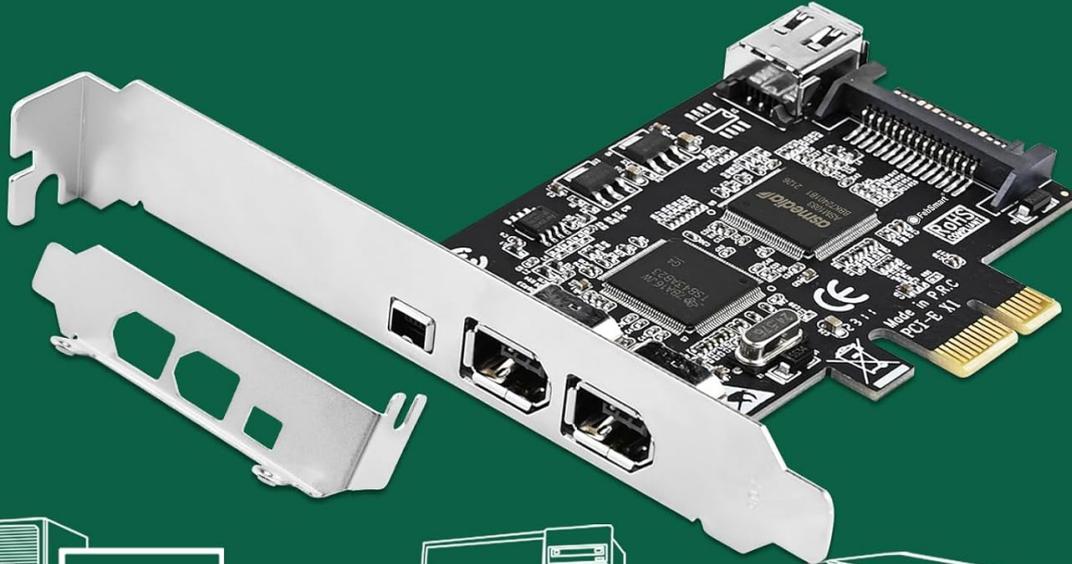
Based on Texas Instruments TSB43AB23 Firewire 1394A Host Controller and ASMedia ASM1083 Bridge Controller. Compatible with Intel, AMD, ARM, MAC Hardware Platform.



Texas Instruments TSB43AB23  
IEEE Firewire 400 1394A Host Controller



ASMedia ASM1083  
PCIE Bridge Controller



Working Station



Desktop PC



NAS Data Center

Details on the core chipsets used: Texas Instruments TSB43AB23 IEEE Firewire 400 1394A Host Controller and ASMedia ASM1083 PCIE Bridge Controller, ensuring compatibility with Intel, AMD, ARM, and Mac platforms.

## 4. SYSTEM REQUIREMENTS

### 4.1 Operating Systems

- Windows 11, 10, 8.x, 7, Vista, XP, 2003, 2000, 98 (32/64-bit)
- Windows Server 2003, 2003R2, 2008, 2008R2, 2012, 2012R2, 2016, 2019, 2022
- Mac OS X 8.6 and later versions
- Linux kernels 2.4+

### 4.2 Hardware Requirements

- One available PCIE X1, X2, X4, X8, or X16 slot on the motherboard. (Note: Does not work on PCI slots.)
- For heavy sound cards or devices requiring additional power, a 12V SATA power supply from the PSU may be required.

Compatible with Windows 11,10,8.x,7,Vista,XP(32/64bit) and Windows Server 2003,2008, 2003R2,2008R2,2012,2012R2,2016,2019,2022(32/64bit),MAC OS 8.6+ and Linux 2.4+.

The graphic displays a network card with the following compatibility logos and text:

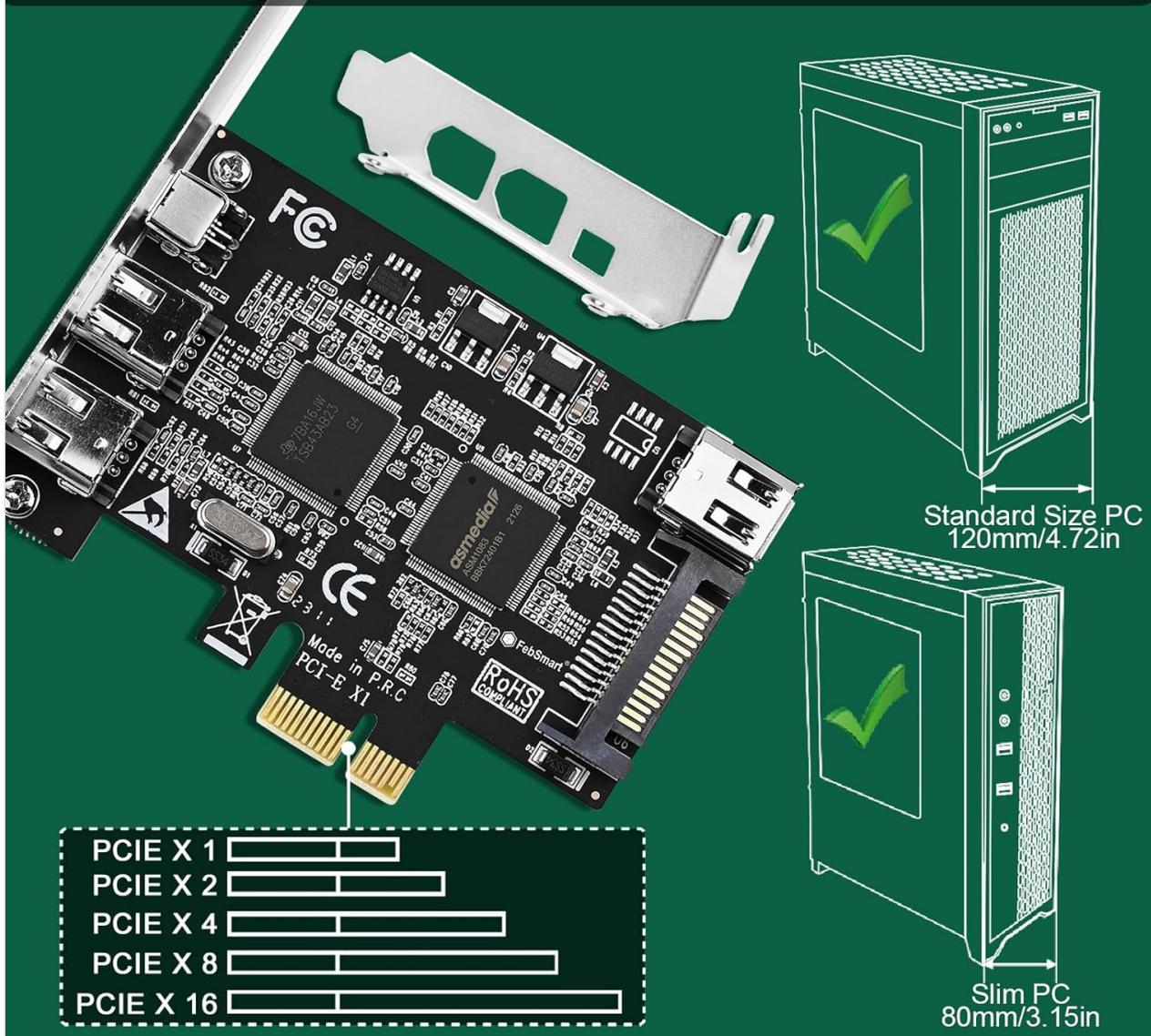
- Mac OS**: MAC OS X 10.8+
- Windows 11**
- Windows 10**
- Windows 8.x**
- Windows Server**
- Linux 2.4+** (represented by a penguin icon)
- Windows 2003**
- Windows XP**
- Windows 7**
- Windows Vista**

The network card itself has the following visible components and text:

- Ports: Ethernet, USB, and a BNC connector.
- Chips: 7BA16 JW TSB43AB23 G4, asmedia ASM1083 BBK72401B1 2126.
- Compliance: RoHS COMPLIANT, FCC.
- Other: Made in P.R.C., PCI-E X1.

A graphic indicating compatibility with various operating systems, including Windows, Mac OS X, and Linux.

PCIE X1 Interface Design, Will Compatible with PCIE X1, X2, X4, X8, X16 Slot. Full Height Bracket Mounted on USB 3.0 Card, Works on Standard Size PCs. NOT Support Slim PCs.



This image demonstrates that the PCIe X1 interface card is compatible with PCIe X1, X2, X4, X8, and X16 slots. It also shows the full-height bracket for standard PCs and the low-profile bracket for slim PCs.

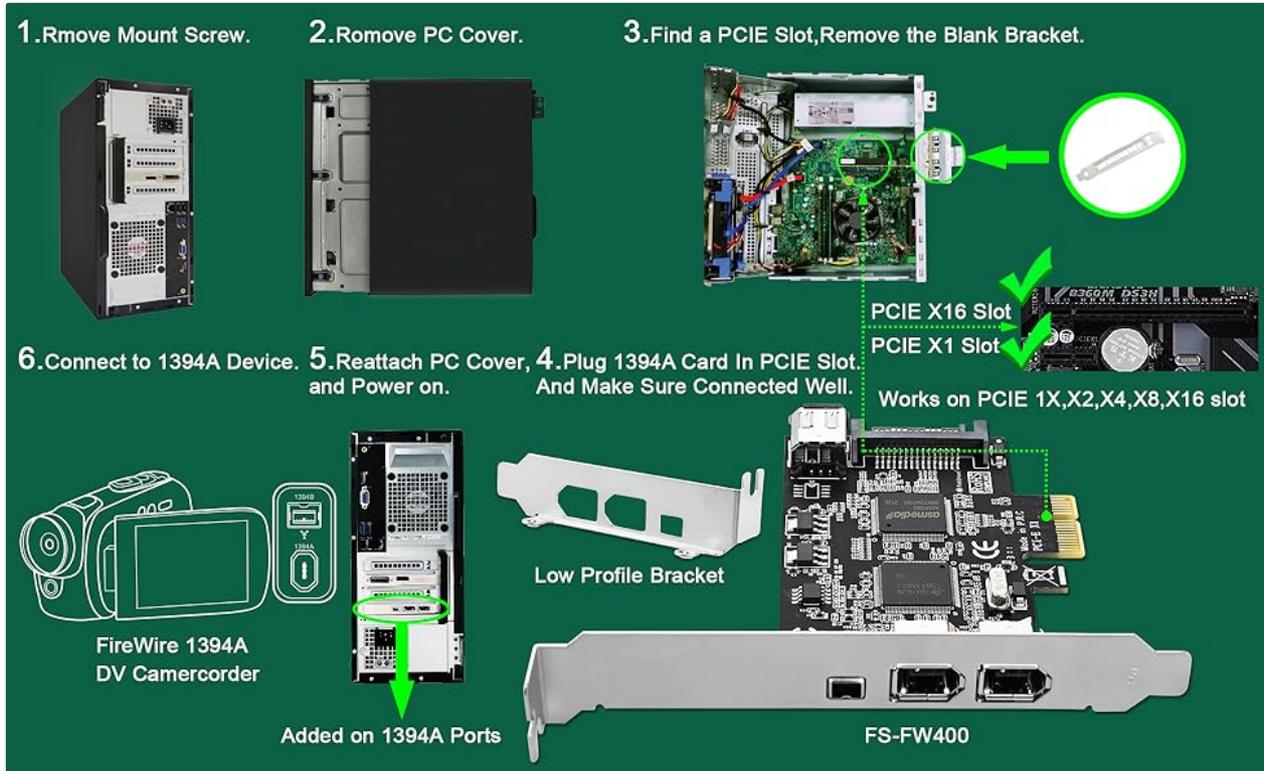
## 5. INSTALLATION GUIDE

Follow these steps to install the FebSmart FS-FW400 expansion card into your desktop PC:

1. **Power Off and Disconnect:** Completely power off your computer and disconnect the power cable and all other peripherals.
2. **Open PC Case:** Remove the side panel of your computer case to access the motherboard.
3. **Locate PCIe Slot:** Identify an available PCIe X1, X2, X4, X8, or X16 slot on your motherboard. Remove the corresponding metal bracket cover from the back of the PC case.
4. **Install Low-Profile Bracket (if needed):** If you have a slim PC, you will need to replace the pre-installed full-height bracket with the included low-profile bracket. Unscrew the two small screws holding the full-height bracket to the card, remove it, and attach the low-profile bracket using the same screws.
5. **Insert Expansion Card:** Carefully align the gold contacts of the Firewire card with the chosen PCIe slot. Press down firmly and evenly until the card is securely seated in the slot.
6. **Secure the Card:** Secure the card to the PC case using the screw from the removed metal bracket

cover.

7. **Connect SATA Power (Optional):** If you are connecting high-power Firewire devices (e.g., some sound cards), connect a SATA power cable from your power supply unit (PSU) to the 12V SATA power connector on the Firewire card.
8. **Close PC Case:** Reattach the side panel of your computer case.
9. **Reconnect and Power On:** Reconnect all power cables and peripherals, then power on your computer.



A visual guide detailing the installation process: removing the mount screw, opening the PC cover, locating a PCIe slot, installing the card, reattaching the cover, and connecting a 1394A device.

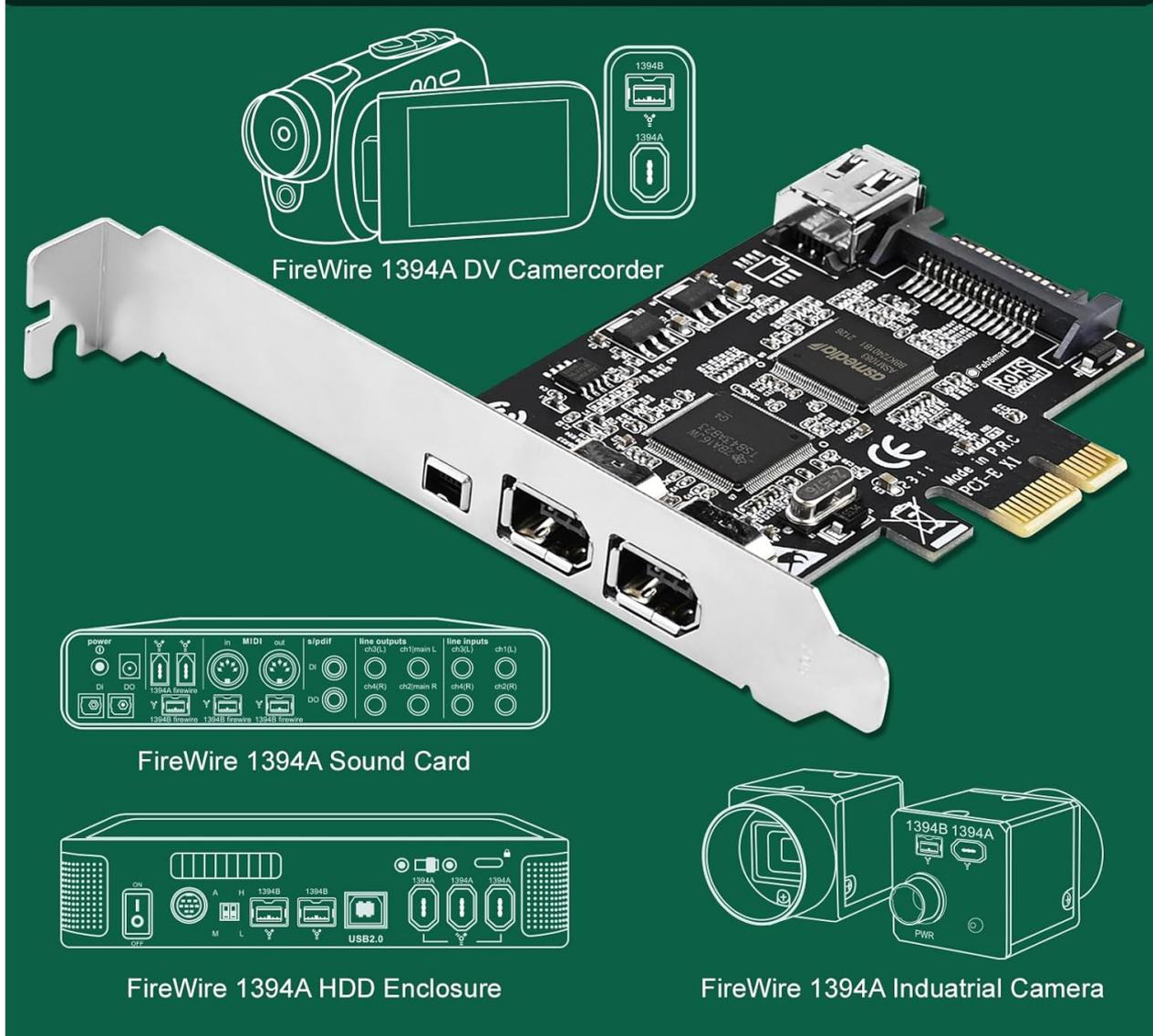
## 6. OPERATION

Once the FebSmart FS-FW400 card is installed, your operating system should automatically detect and install the necessary drivers. The card is designed for plug-and-play functionality on supported Windows, Mac OS, and Linux systems.

### 6.1 Connecting Firewire Devices

Connect your Firewire 1394A devices (e.g., DV camcorders, audio interfaces, external hard drives) to the appropriate 6-pin or 4-pin ports on the expansion card using a compatible Firewire cable. The card supports up to 63 devices, sharing a total bandwidth of 400Mbps.

Light Up 4X 1394A Devices Include 1394A DV Camcorders, 1394A HDD Storage Enclosures, 1394A Industrial Cameras, 1394A, Sound Cards on New Desktop PCs.



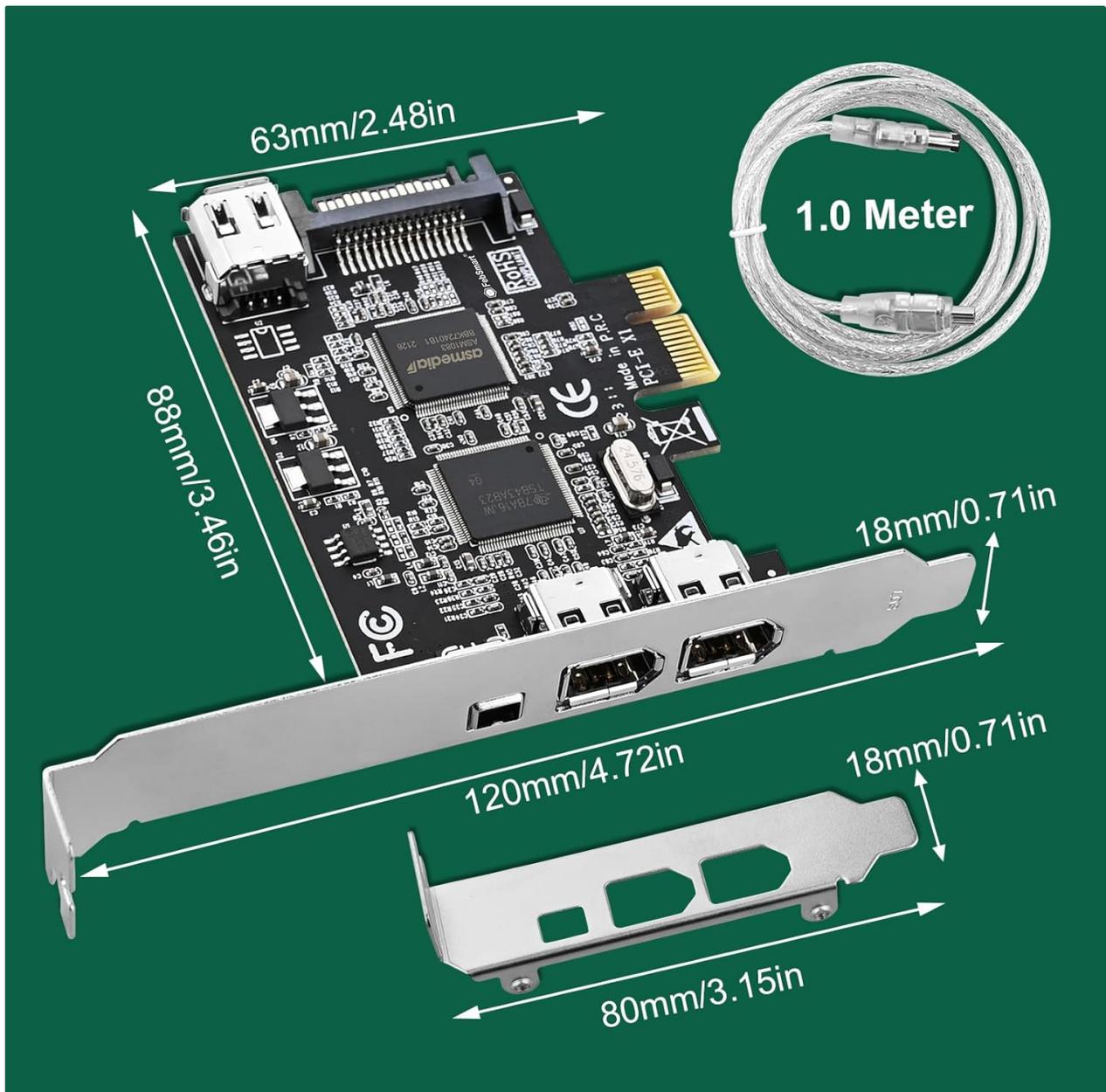
Visual examples of devices that can be connected to the Firewire 1394A expansion card, such as DV camcorders, sound cards, HDD enclosures, and industrial cameras.

## 7. TROUBLESHOOTING

- **Card Not Detected:** Ensure the card is fully seated in the PCIe slot. Verify that the PCIe slot is functional by testing with another known working card if possible.
- **Device Not Recognized:** While the card is plug-and-play, some Firewire devices (especially older ones like DV camcorders) may require specific drivers or software from their manufacturer. Install any necessary device-specific software.
- **Performance Issues:** Remember that all 4 Firewire 1394A ports share a total bandwidth of 400Mbps. If multiple high-bandwidth devices are connected, performance may be affected.
- **No Power to Device:** If your Firewire device requires bus power and is not receiving it, ensure the optional SATA power connector on the Firewire card is connected to your PSU.

## 8. SPECIFICATIONS

Feature	Detail
Brand	FebSmart
Model Number	FS-FW400
Hardware Interface	IEEE 1394 (FireWire), PCI Express X1
Ports	3x 6-Pin 1394A, 1x 4-Pin 1394A
Max Data Speed	400Mbps (shared across all ports)
Chipset	Texas Instruments TSB43AB23, ASMedia AS1083
PCIe Standard	PCI Express 1.1 (2.5Gbps bandwidth)
Operating System Support	Windows, Mac OS, Linux
Dimensions (LxWxH)	4.72 x 3.46 x 0.71 inches (120 x 88 x 18 mm)
Item Weight	3.84 ounces (0.11 Kilograms)



Technical drawing showing the physical dimensions of the Firewire expansion card and the included low-profile bracket in

millimeters and inches.

## **9. WARRANTY AND SUPPORT**

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FebSmart products are designed for reliability and performance. For warranty information or technical support, please refer to the official FebSmart website or contact their customer service directly. Keep your purchase receipt for warranty claims.