

Introduction

SUNIX proudly introduces the UPB2430, a high-performance PCIe Gen4x4 to dual-port USB4 expansion card, delivering blazing speeds of up to 40 Gb/s. Unlock stunning 4K or even 8K video output* and enjoy reliable 5 V/3A power delivery from each USB-C port. Designed for versatility, the UPB2430 ensures seamless backward compatibility with USB 2.0/3.0/3.1 and Thunderbolt 3 devices. Whether you're connecting video adapters, high-speed storage, or docking stations, it's built to handle it all. For compact PCs, the UPB2430 goes even further—supporting external PCIe Gen4x2 expansion cards, so you can extend your internal PCIe capabilities to meet the demands of advanced external applications.

*Video output resolution depends on the capabilities of your graphics card.

System Requirement

- Due to design limitation, SUNIX UPB2430 do not support Windows Modern standby feature.
- Please confirm Motherboard vendor that ensure which PCIe slot support USB4 AIC.
- To achieve the maximum USB4 40 Gb/s performance, the UPB2430 uses a PCIe Gen4x2 interface design to deliver full-speed performance. The card must be installed in a PCIe x16 (or at least x4) slot on the motherboard, similar to how a graphics card is installed.

Package

Please check if the following items are present and in good condition upon opening your package. Contact your vendor if any item is damaged or missing.

1. UPB2430 - 2-port USB4(Gen3x2) PCIe Host Card with Type-C Receptacle
2. 2x DP to Mini DP cable (L=415mm)
3. Quick Installation Guide

Hardware Installation

SAFETY FIRST To avoid damaging to the computer, make sure to remove any power connection before card installation.

1. Turn your computer off and remove the power plug from the power supply unit.

2. Remove the cover from the computer case.

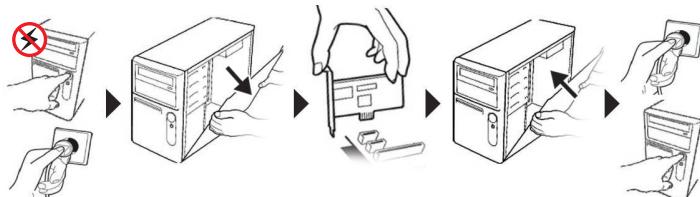
3. Remove the metal cover plate on the rear of an available PCI Express slot (e.g. PCIe x16).

4. Insert the card in to the available PCI Express slot and screw it firmly on the bracket side.

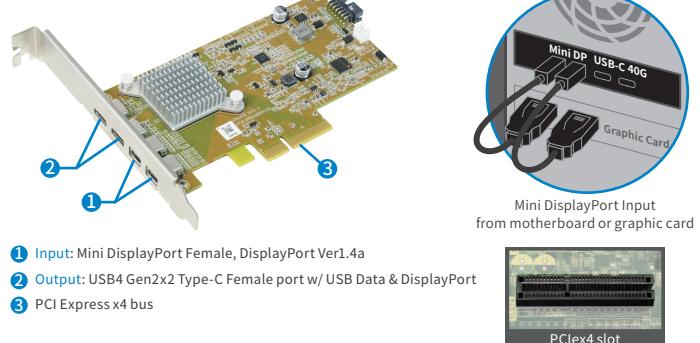
5. Connect between PC desktop's DisplayPort output and the card's Mini DisplayPort input.

6. Place the cover back onto the computer.

7. Connect the power cable back to the power supply unit.



Hardware Guide



Specifications

Hardware

BUS	PCI Express Spec 4.0, 4 Lane
Controller	PCI Express USB4 Host Controller, ASM4242
USB Standard	eXtensible Host Controller Interface (xHCI) Rev1.2
IRQ & IO	Assigned by System

Video / Audio Interface

Input	2x Mini DisplayPort Female, DisplayPort Ver1.4a
Output	USB-C port
Audio	Yes (audio pass-through)

USB Communication

Interface	Universal Serial Bus 4/3.2 (Gen1,2)/2.0	No. of Port	2-port
Speed	USB4 Gen2x2=40Gbps / USB 3.2 Gen2x2=20Gbps / USB3.2 Gen2=10Gbps / USB3.2 Gen1=5Gbps / High Speed(480Mbps) / Full Speed(12Mbps)		
PCB Connector	USB Type-C port (Downstream Facing Port)		
Protection	±8KV IEC61000-4-2 Air Gap Discharge ±4KV IEC61000-4-2 Contact Discharge		

Power

Source	PCI Express Bus Power
Output Capacity	USB Type-C Port: +5VDC / 3A / each port Note: * USB Power Delivery Protocol does NOT support. * Built-in over current protection on each USB port. * Maximum power output depends on the capacity of user's power supply unit
Power Consumption	S0: 3.9W, S3=0.19W

Driver Support

Microsoft	Windows 11 (Windows in-box driver)
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Environment

Operation Temperature	0 to 60°C (32 to 140°F)	PCB Dimension	126 x 68.5 mm
Operation Humidity	5 to 95% RH	Bracket	Standard 120 mm (Low Profile 80mm)
Storage Temperature	-20 to 70°C (-4 to 158°F)	Bracket Space	1

Standards and Certifications

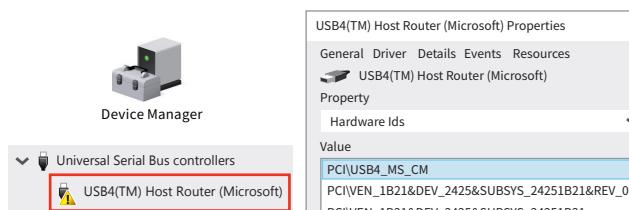
EMC	EU: CE / US: FCC / JAPAN: VCCI / TAIWAN: BSMI - CNS13438
Green	RoHS, CRoHS, WEEE

Notice: Please always use the "Safely Remove USB Device" icon in the taskbar before unplug or eject your USB device to prevent your pc to crash and lose valuable data.

USB4 BIOS Setting & Verification

- Example: ASUS ROG MAXIMUS Z890 HERO

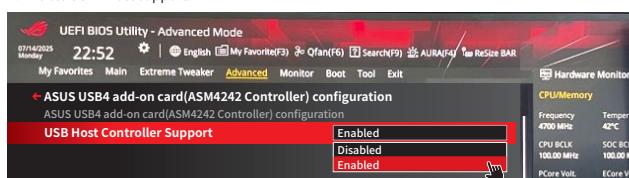
1. Ensure that your motherboard supports USB4 host functionality & identify the corresponding PCIe slot.
2. There is an exclamation mark (USB-Serial) in the device manager after the card is installed



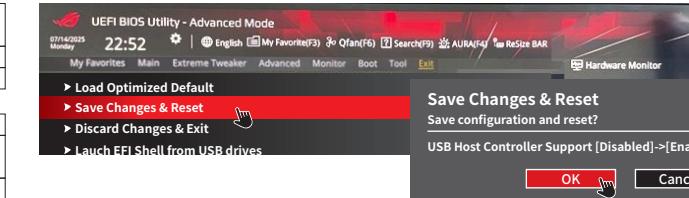
3. Login to your BIOS setting



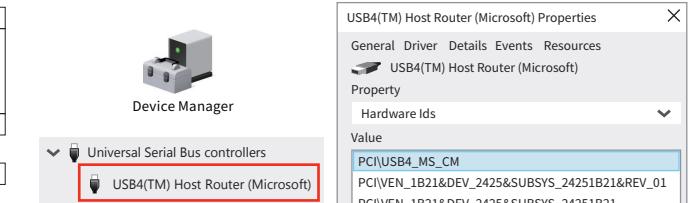
4. Enable USB4 Host support.



5. Save Changes & Reset > OK



6. Reboot your computer then check the Device Manager to verify the USB4 Host Router with no exclamation mark.



Troubleshooting

Q 1. Why does my motherboard only recognize the USB 3.2 host?

A 1: Please first check with your motherboard vendor to confirm if your motherboard supports a USB4 host AIC. Then, verify the PCIe slot you are using. Finally, make sure USB4 support is enabled in the BIOS. Please refer to next page to get to know more about this.

Q 2. Do I need to install a separate driver?

A 2: No, Windows 11 already includes the inbox driver.

Q 3. Why is the data transfer speed of my external hard drive similar to USB 3.1 (10Gbps)?

A 3: Please confirm that your external device is USB4 or Thunderbolt 3/4 in order to achieve optimized transfer speeds.

Q 4. Can USB4 support my Thunderbolt monitor?

A 4: The SUNIX UPB2430 is compatible with Thunderbolt 3/4 and can display properly.

Q 5. Does it support fast charging?

A 5: The SUNIX UPB2430 does not support fast charging. Our USB-C output provides 5V/3A.

Motherboard Selection Notice

• To fully enjoy USB4 high-speed data transfer, please choose your motherboard carefully, as not all motherboards support the USB4 function.

• Motherboards that do not support USB4 will be limited to USB 3.2 or USB 2.0 speeds, and an exclamation mark may appear in Device Manager.

• This compatibility information is typically available on the motherboard vendor's official website. Please check your vendor for more information.

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