UPB2430

USB4 Gen3x2 2 port PCI Express Host Card
(USBIF TID 12912)

Introduction

SUNIX proudly introduces the UPB2430, a high-performance PCIe Gen4x4 to dual-port USB4 expansion card, delivering blazing speeds of up to 40Gb/s. Unlock stunning 4K or even 8K video output* and enjoy reliable 5V/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.

Features

■ PCI Express Base Specification Revision 4.0, 4 Lane.

■ Compliant with USB4 specification Rev 1.0.

■ VESA DisplayPort Alt mode on USB Type-C Standard v2.0

■ Compliant with xHCI (eXtensible Host Controller Interface) specifications Revision 1.2.

■ Supports simultaneous operation of multiple USB4, 3.2, 3.1, 3.0, USB 2.0 devices.

■ Support USB4 Thunderbolt 3 compatibility.

■ Provide high bandwidth up to USB4 Gen3x2 40Gbps.

■ Supports USB data transfer rate of 20G/10G/5G/480/12/1.5 Mbps.

■ Bridge a PCI Express USP and two DisplayPort sink ports to two USB4 DFPs on the system.

■ USB port supplies maximum +5VDC / 3A power output to USB device.

■ Built-in over current protection on each USB port.

■ Hot-swapping feature allows connect/disconnect device without powering down the system.

■ Driver supports for Microsoft Windows 11 operation systems.

■ Certified by Electromagnetic Compatibility (CE, FCC, VCCI, BSMI) and RoHS approval.

■ Green Product meets RoHS standard and Low Power consumption.

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

USB Communication

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

Video / Audio

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

Power

Source	PCI Express bus power
Output Capacity	USB Type-C Port: +5VDC / 3A Note: * USB Power Delivery Protocol does NOT support. * Built-in over current protection on each USB port. * Maximum total 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)
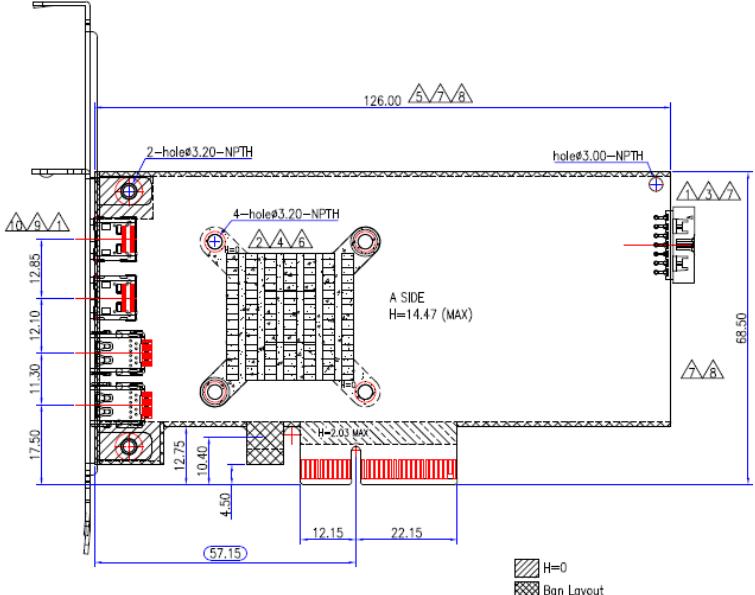
Environment

Operation Temperature	0 to 60°C (32 to 140°F)
Operation Humidity	5 to 95% RH
Storage Temperature	-20 to 70°C (-4 to 158°F)

Standards and Certifications

EMC	EUR: CE, UKCA; US: FCC
	TAIWAN: BSMI
	JAPAN: VCCI
Green	CE(RoHS), CRoHS, WEEE

Physical Characteristics

PCB Dimension	126x 68.5 mm
Bracket	Standard 120 mm (Low Profile 80mm)
Bracket Space	1
Mechanical Drawings (unit: mm)	

<Note>:

● Due to design limitation, Sunix UPB2430 do not support Windows Modern standby feature.

● Please confirm Motherboard vender that ensure which PCie slot support USB4 AIC.

● To achieve the maximum USB4 40Gb/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

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