USB2312A v.1.1

USB3.2 Gen2 Enhanced SuperSpeed Dual ports PCI Express Host Card with Type-A Receptacle

Introduction

SUNIX USB2312A is a dual-port Super-Speed USB3.2 Gen2 PCI Express Add-on card, and it's compliant with the PCI Express Gen-III Dual-lane (x2) specification for host PC system. It works up to 10 Gbps for data transfer when connecting to USB 3.1 compliant peripherals, while maintaining compatibility with existing USB peripheral devices. USB3.2 Gen2 performance is 2 times faster than USB3.2 Gen1 and 20 times faster than USB2.0 connectivity. With SUNIX unique technology, it can output efficient power to USB device without additional power adapter connection. SUNIX USB2312A is an ideal choice for external storage devices, MP3 players, external writer, digital cameras, webcam, networking and video devices, and all other USB devices.

Features

- PCI Express Base Specification Revision 3.0 dual-lane (x2).
- Support PCIe L1 substate and CLK REQ# for advanced power management.
- Compliant with Universal Serial Bus 3.2 specification Gen2.
- Compliant with xHCI (eXtensible Host Controller Interface) specifications Revision 1.1.
- Supports simultaneous operation of multiple USB 3.2 Gen2/1, USB 2.0 and USB 1.1 devices
- Supports USB data transfer rate of 10G/5G/480/12/1.5 Mbps.
- Expands dual external USB3.2 Gen2 Super-Speed plus Type-A ports on the system.
- Each USB port supplies maximum +5VDC / 1500mA 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 7, 8.x and 10,11 operation systems.
- Certified by Electromagnetic Compatibility (CE, FCC, VCCI, BSMI) and RoHS approval.

Specifications

Hardware

BUS	PCI Express Spec 3.0, Dual-Lane (x2)
Controller	PCI Express USB3.2 Gen2 Host controller, Asmedia ASM3142
USB Standard	eXtensible Host Controller Interface (xHCI) Rev1.1
IRQ & IO	Assigned by System

USB Communication

Interface	Universal Serial Bus 3.2 Gen2 / 1, USB 2.0 / 1.1
Speed	Super Speed+ (10Gpbs), Super Speed(5Gpbs) High Speed(480Mbps), Full Speed(12Mbps), Low Speed (1.5Mbps)
No. of Port	2-port
PCB Connector	USB3.2 Gen2 USB Type-A port
Protection	±15KV IEC61000-4-2 Air Gap Discharge ±8KV IEC61000-4-2 Contact Discharge

Power

Source	PCIe Bus Power
Output Capacity	USB Type-A Port: +5VDC / Maximum 0.9A / each port Note: Total power output capacity will be limited by system power supply.
Over Current Protection	USB Type-A Port: +5VDC / 1.5A / each port / Power switch
Power Consumption	1.1 W @ 3.3V (board only without power output to USB device)

Driver Support

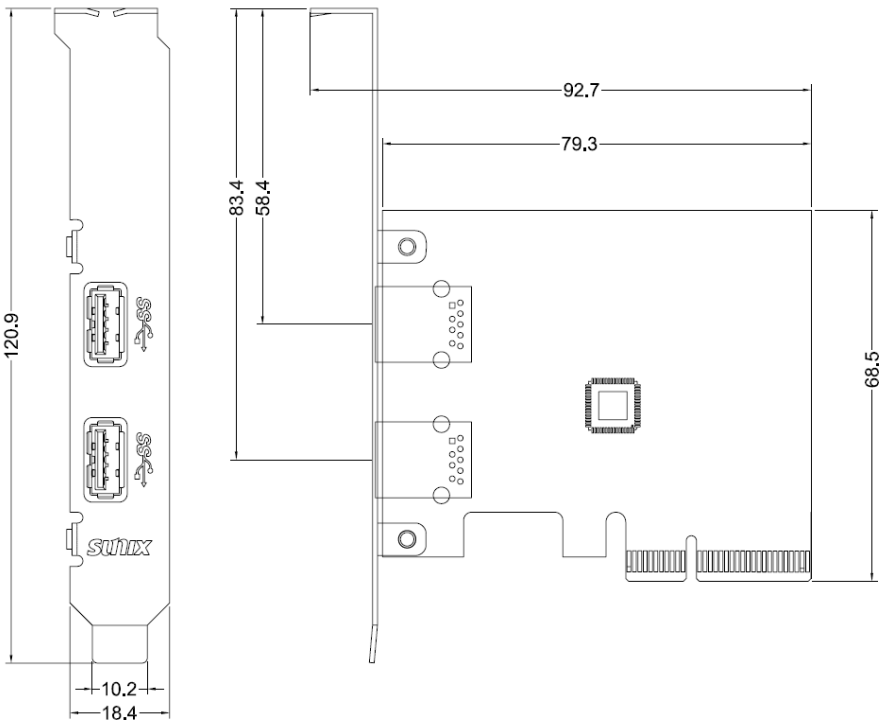| Microsoft	Windows 7 (X86/X64) Windows 8.x / 10/ 11 (X86/X64) (Windows in-box driver)
Linux	Linux 2.6.31 or later (Linux OS already implemented USB3.0 driver)

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	CE, FCC, VCCI, BSMI
Green	RoHS, CRoHS, WEEE

Physical Characteristics

PCB Dimension	79.3 x 68.5 mm
Bracket	Standard 120 mm (Low Profile 80mm)
Bracket Space	1
Mechanical Drawings (unit: mm)	

Package

■ USB2312A - 2-port USB3.2 Gen2 PCIe Host Card with Type-A Receptacle
■ Low Profile bracket
■ Quick installation guide