



USB2321C

**USB 3.2 Enhanced SuperSpeed Gen2x2
1 port PCI Express Host Card
with Type-C Receptacle**



Introduction

SUNIX USB2321C is a 1 port Super-Speed USB 3.2 Gen2x2 PCI Express card, and it's compliant with the PCI Express Generation 3 specification for host PC system. Based on USB Type-C pure DFP (Downstream Facing Port) mode, it works up to 20 Gbps for data transfer when connecting to USB 3.2 compliant peripherals, while maintaining compatibility with existing USB peripheral devices. USB 3.2 performance is 2 times faster than USB 3.2 Gen2x1(USB3.1 Gen2) and 4 times faster than USB 3.2 Gen1x1(USB3.0) connectivity.

SUNIX USB2321C allowing for up to two lanes of 10Gbps operation to realize a 20Gbps data transfer rate for USB C connectivity. With USB Type-C Receptacle, SUNIX USB2321C sports reversible plug orientation and cable direction, which means that users will no longer need to be concerned with plug orientation/cable direction, making it easier to plug in. SUNIX USB2321C supports 5VDC@1.5A power output to USB device with over current protection on USB port. This card is an ideal choice for external storage devices, digital cameras, webcam, video devices, and all other USB electronic devices.

Features

- PCI Express Base Specification Revision 3.0, 4 Lane.
- Compliant with Universal Serial Bus 3.2 specification.
- Compliant with xHCI (eXtensible Host Controller Interface) specifications Revision 1.1.
- Supports simultaneous operation of multiple USB 3.2, 3.1, 3.0, USB 2.0 and USB 1.1 devices
- Supports USB data transfer rate of 20G/10G/5G/480/12/1.5 Mbps.
- Expands single external USB 3.2(Gen2x2) Super-Speed plus Type-C port (DFP) on the system.
- USB port supplies maximum +5VDC / 1.5A 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 8.x and 10 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 3.0, 4 Lane |
| Controller | PCI Express USB 3.2 Host controller, ASM3242 |
| USB Standard | eXtensible Host Controller Interface (xHCI) Rev1.1 |
| IRQ & IO | Assigned by System |

USB Communication

| | |
|---------------|---|
| Interface | Universal Serial Bus 3.2/3.1 / 3.0 / 2.0 / 1.1 |
| Speed | Super Speed+ (Gen2x2=20Gpbs), Super Speed+ (Gen2x1=10Gpbs), Super Speed(5Gpbs) High Speed(480Mbps), Full Speed(12Mbps), Low Speed (1.5Mbps) |
| No. of Port | 1-port |
| PCB Connector | USB 3.2 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 / 1.5A 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 | 1.1 W @ 3.3V (board only without power output to USB device) |

Driver Support

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|-----------|--|
| Microsoft | Windows 8.x / 10 (X86/X64) (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

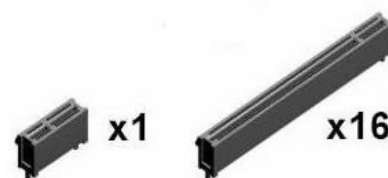
| | |
|-------|---------------------|
| EMC | CE, FCC, VCCI, BSMI |
| Green | RoHS, CROHS, WEEE |

Physical Characteristics

| | |
|-----------------------------------|---|
| PCB Dimension | 79.3 x 68.5 mm |
| Bracket | Standard 120 mm (Low Profile 80mm) |
| Bracket Space | 1 |
| Mechanical Drawings (unit: mm) | <p>The drawing shows a top-down view of the PCB with dimensions: 79.3 mm width, 68.5 mm height, and a mounting hole offset of 0.95 mm. A dimension of 59.05±0.4 mm is shown for the lower section. A legend indicates 'Ban Anything' with a hatched pattern and 'H=1.5mm' for the mounting holes.</p> |

<Note>:

To satisfy USB 3.2 20Gb/s SuperSpeed+ highest performance, USB2321C adopts the PCIe Gen3x2 or Gen2x2 interface connector design to support full-power performances (20Gb/s). User has to plug USB2321C add-on card into PCIe x16 (or x4 above) slot on the mainboard, such as graphics add-on card adopting.



Package

- USB2321C - 1-port USB 3.2 (Gen2x2) PCIe Host Card with Type-C Receptacle
- User's Manual

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