



UPA2015

USB3.2 Gen2 10G & DisplayPort Alt-Mode
PCI Express Host Card
with Dual USB Type-C Receptacles

Introduction



SUNIX UPA2015 is a Dual-port Super-Speed+ USB3.2 Gen2 10G PCI Express add-on card, and it's compliant with the PCI Express Gen3 specification for host PC system. Based on USB Type-C pure DFP (Downstream Facing Port) mode, it works up to 10 Gbps for data transfer when connecting to USB 3.2 Gen2 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. In addition, one USB Type-C port supports DisplayPort Alternate-mode for video output, and the other is an USB data-only port

With USB Type-C Receptacle, SUNIX UPA2015 supports 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. The new connector is smaller and thinner design, but drive higher power output capacity to USB device. SUNIX UPA2015 supports 5VDC@1500mA power output to USB device with over current protection on each USB port. This card is an ideal choice for external storage, smart phone, webcam, video devices, and all other USB electronic devices.

Features

- PCI Express Base Specification Revision 3.0 two-lane (x2).
- Expands dual external USB3.2 Gen2 Super-Speed plus Type-C port (DFP) on the system.
- 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/Gen1, USB 2.0 and USB 1.1 devices
- Supports USB data transfer rate of 10G/5G/480/12/1.5 Mbps.

- Independent 10G USB PHY for each USB type C port.
- USB port supplies +5VDC / 1.5A power output to USB device with over current protection.
- Compliant with DisplayPort 1.4 spec with HDTV 4K (2160p) resolution and stereoscopic 3D.
- One USB-C compliant with VESA DisplayPort Alternate Mode for USB Type-C Standard Rev1.0.
- Hot-swapping feature allows connect/disconnect device without powering down the system.
- Driver supports for Microsoft Windows 8.x, 10 and 11 operation systems.
- Certified by Electromagnetic Compatibility (CE, FCC, VCCI, BSMI) and RoHS approval.

Specifications

Hardware

BUS	PCI Express Spec 3.0x2 (compliant with x4/x8/x16 slot)
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 / Gen1 / 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	USB Type-C port (Downstream Facing Port)
Protection	±15KV IEC61000-4-2 Air Gap Discharge ±8KV IEC61000-4-2 Contact Discharge

Video / Audio

Input Interface	Standard DisplayPort Female, DisplayPort Ver1.4/1.2
Output Interface	USB Type-C port
Audio	Yes (audio pass-through)

Power

Source	PCI Express Bus Power
Output Capacity	USB Type-C Port: USB bus power: +5VDC / 1.5A / each port Note: Total power output capacity will be limited by system power supply.
Over Current Protection	USB Type-C Port: +5VDC / 1.5A / each port / Power Switch
Power Consumption	3.0W @ 3.3V (board only without power output to USB device)

Driver Support

Microsoft	Windows 8.x / 10 (X86/X64) /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	CE, FCC, VCCI, BSMI
Green	RoHS, CRoHS, WEEE

Physical Characteristics

PCB Dimension	85.30x 55.75 mm
Bracket	Standard 120 mm (Low Profile 80mm)
Bracket Space	1
Mechanical Drawings (unit: mm)	

Package

- UPA2015 -USB3.2 Gen2 & DisplayPort Alt-Mode PCIe Host Card with 2-port USB Type-C Receptacles
- Low profile bracket
- DisplayPort Male to DisplayPort Male cable
- User's Manual

Headquarters

Taiwan

Sunix Co., Ltd.
Tel : +886-2-8913-1987
Fax : +886-2-8913-1986
Website : www.sunix.com
E-mail : info@sunix.com

America

SUNIX USA, INC.
Tel : +1 (626) 765-4031
Fax : +1 (909) 594-8906
Website : www.sunix.com
E-mail : sales.sunixusa@sunix.com

Germany

Sunix Vertriebs GmbH
Tel : +49(0)6995-20 9506
Fax : +49(0)6995-20 8267
Website : www.sunix.com
E-mail : info@sunix-euro.de

China

Shanghai Office
Tel : +86-21-6469-1670
Fax : +86-21-6468-8346
Website : www.sunix.com.cn
E-mail : info@sunix.com.cn

Beijing Office

Tel : +86-10-65308429
Fax : +86-10-65308421

Shenzhen Office

Tel : +86-07-5533500418