

**Neousys Technology Inc.**

**PCIe-USB380**

***8-Ports x4 PCI-E USB3.0***

***Frame Grabber Card***

**User's Manual**

**Rev. A1**

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## FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## CE

The product(s) described in this manual complies with all applicable European Union (CE) directives if it has a CE marking. For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques.

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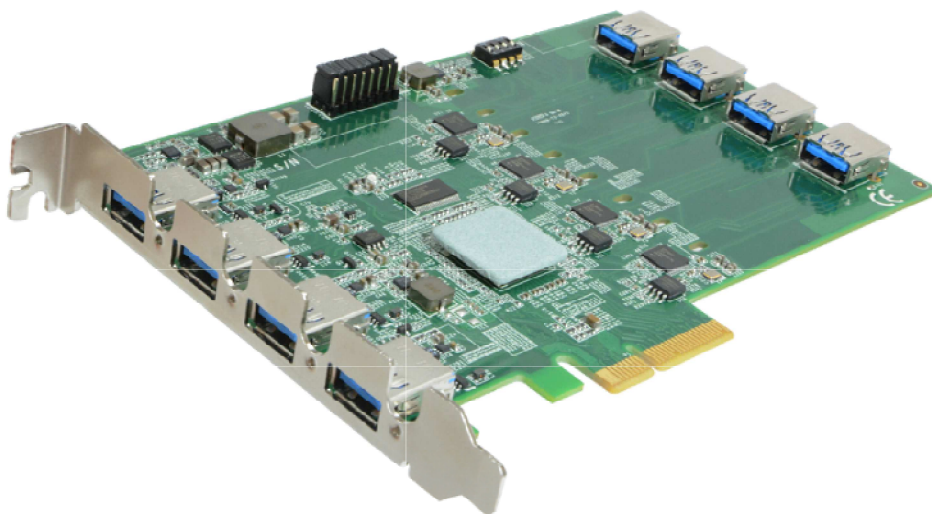
# Chapter 1 Introduction

## 1.1 Overview

Neosys PCIe-USB380/340 is an 8/4-port USB 3.0 host adapter dedicatedly designed for industrial and vision applications. USB 3.0, or SuperSpeed USB, is an emerging bus technology to deliver ten times of data rate over USB 2.0, and is particularly useful for high-speed data storage and image devices.

Most off-the-shelf USB 3.0 cards implement multiple ports with single USB 3.0 controller, which introduce significant performance degradation for multi-port operation. To achieve maximal per-port performance, PCIe-USB380/340 has four independent NEC/Renesas  $\mu$ PD720202 USB 3.0 Host Controllers and x4 PCI Express® Gen2 interface to fulfill up to 5 Gbps bandwidth for each port when four ports run simultaneously. In addition to bandwidth advantage, PCIe-USB380 features on-board regulated 5V<sub>D</sub> power supply with a unique design of user-configurable 900mA/1500mA current limit to supply stable 5 VDC power to external USB devices. It also supports software-programmable per-port power on/off control for fault recovery operations.

Combining high bandwidth, industrial-grade power design and reliable cable connection, PCIe-USB380 brings great convenience to interface USB 3.0 devices for versatile operating systems, such as Windows XP, 7, 8 and Linux.



# 1.2 Product Specification

## Specifications

Bus Interface	4-lanes, Gen2 PCI Express interface Compliant with PCI Express Base Specification Revision 2.0
USB Ports	8x USB 3.0 ports, compatible with USB 2.0/1.1/1.0
USB Controller	4x NEC/Renesas $\mu$ PD720202 Host Controllers Compliant with Universal Serial Bus 3.0 specification Revision 1.0 Compliant with Intel® xHCI specification Revision 1.0
USB Connectors	4x on-panel USB 3.0 Type-A connectors with M2 screw threads 4x on-board USB 3.0 Type-A connectors with fix points for cable tie
USB Per-Port Current Limit	User-configurable 900mA/1500mA per-port current limit
Power Requirement	Maximal 2.0A@3.3V from PCI Express bus Maximal 5.5A@12V from directly PCI Express bus for USB devices
Operating Temperature	0 ~ 60°C with ambient air flow
Dimension	167.7 m (W) x 111.2 mm (H)

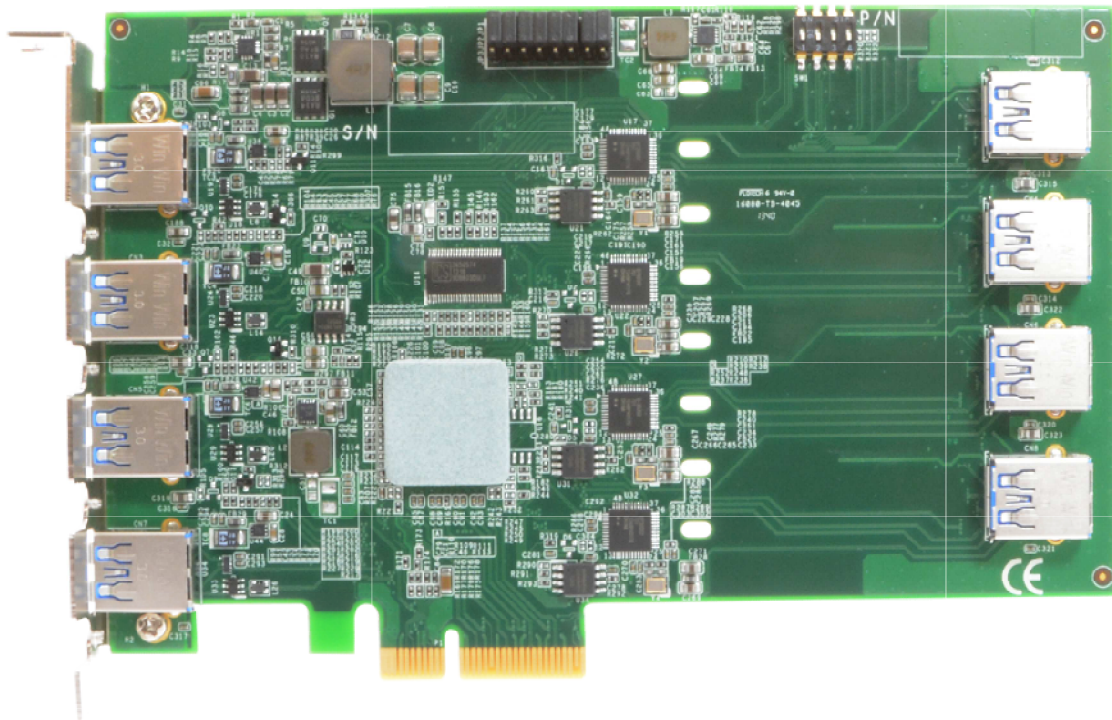
# Chapter 2 Know your PCIe-USB380

## 2.1 Unpacking your PCIe-USB380

When you receive the package of PCIe-USB380, please check immediately if the package contains all the items listed in the following table. If any item is missing or damaged, please contact your local dealer or Neosys Technology Inc. for further assistance.

Item	Description	Qty
1	PCIe-USB380 frame grabber card	1
2	Neosys Drivers & Utilities DVD	1

## 2.2 PCIe-USB380 Front View



# Chapter 3 Getting Start

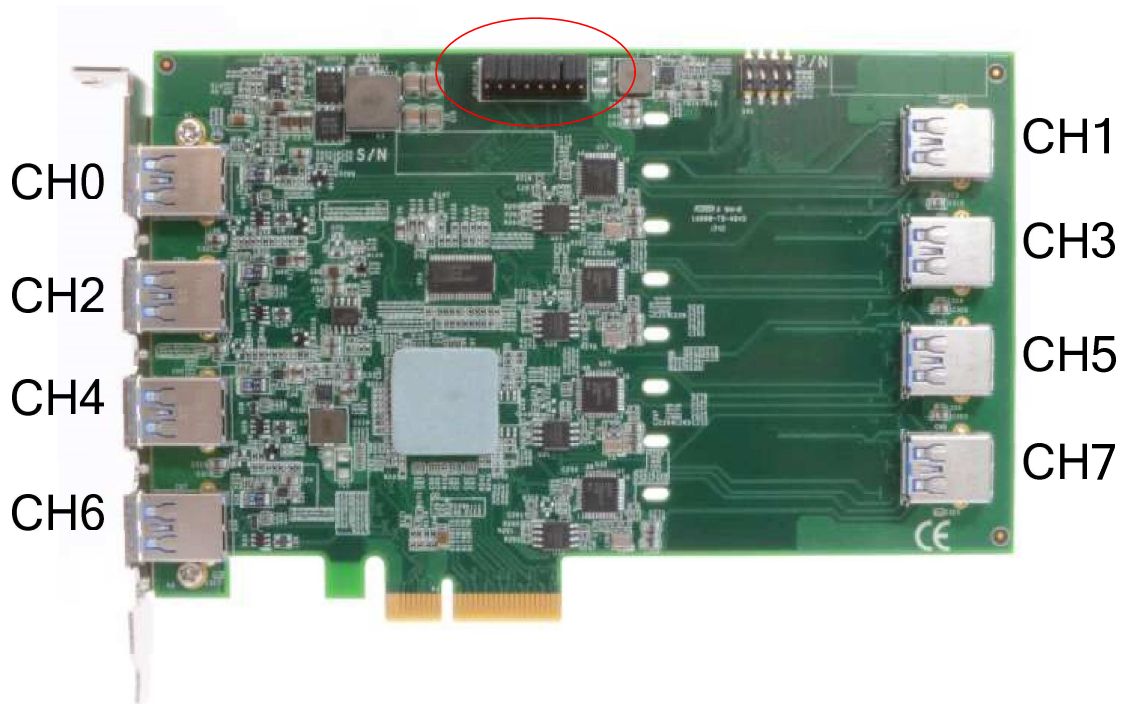
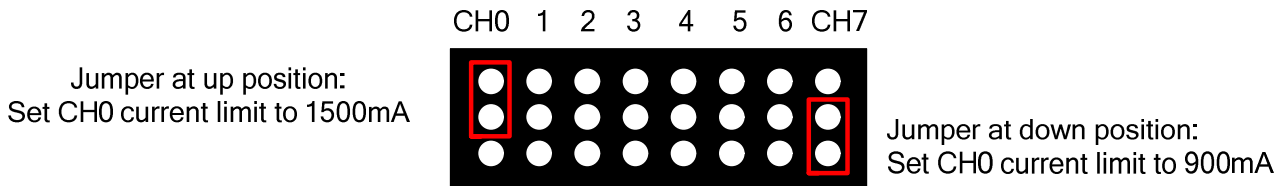
## 3.1 Install the PCIe-USB380 Frame Grabber Card

PCIe-USB380 utilizes the x4 PCI Express bus to communicate with the host computer. Before you install the PCIe-USB380, please make sure that there is a x4 PCI Express slot available on your host computer.

### Note

Most modern computers have x16 PCI Express slot(s) for installing a graphics card. It can be possibly configured as a PCI Express Root Port for installing a general PCI Express card. Please contact the vendor of your computer to check if PCIe-USB380 can be fitted into your x16 PCI Express slot.

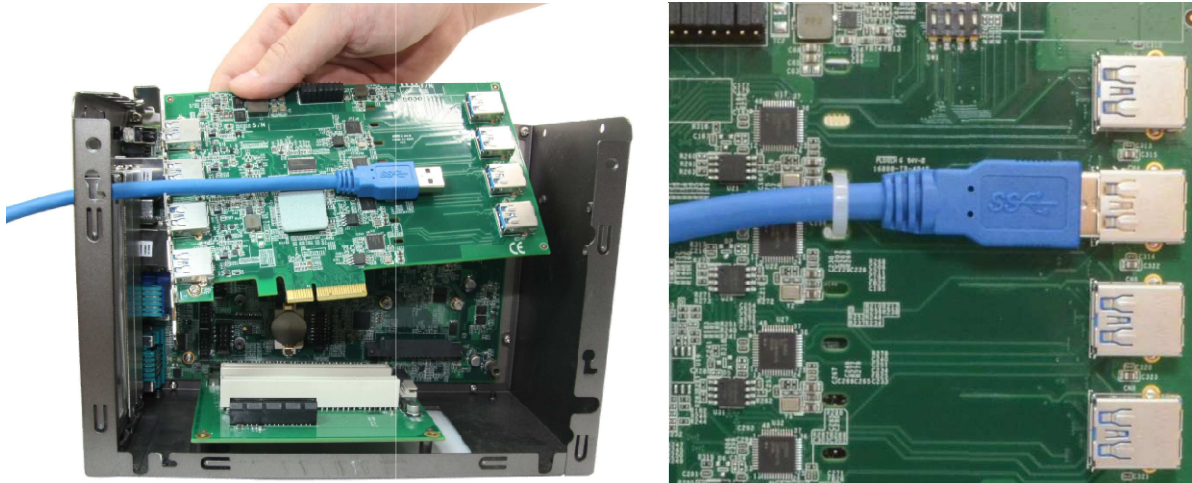
#### 1. Setting current limit jumper



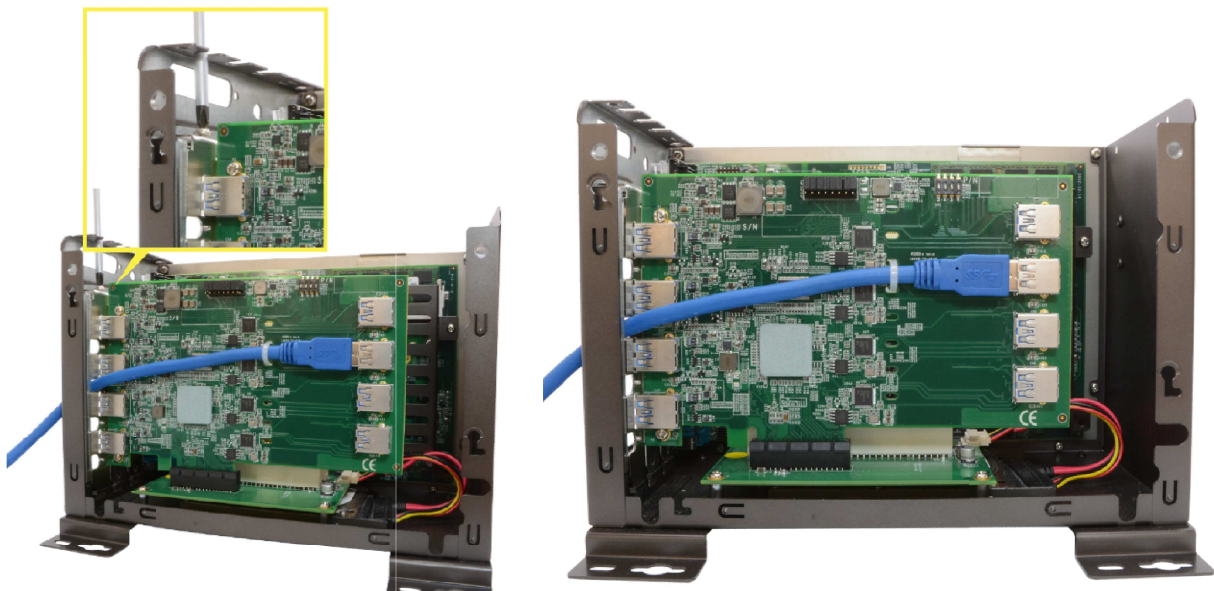
\*If left all pin header open (no jumper install), default current limit is 0.9A.

After setting the current for your PCIe-USB380/340 card, you can install the PCIe-USB380 frame grabber card by following the steps listed below.

1. Open the chassis of the host computer and expose the x4 PCI Express slot (or a compatible x16 PCI Express slot).
2. If you are going to use the internal USB port, please Install cable first (PCIe-USB380 only). You can tighten the cable through fixing hole on PCB.



3. Get cable through the chassis (PCIe-USB380 only).
4. Align and insert the golden finger of PCIe-USB380 into the PCI Express slot until it's firmly contacted.
5. Fix the PCIe-USB380/340 to the host computer using with a screw.



# Chapter 4 Driver Installation and Settings

## 4.1 Driver Installation

### Install drivers for PCIE-USB380/340

**Windows XP, Windows 7 32-bit, Windows Vista 32-bit, Windows 7 64-bit or Windows 64-bit Vista**

You can install the Windows driver for PCIe-USB380/340 manually by following the steps listed below:

1. Execute x:\Driver\_Pool\PCle-USB\WIN\_PCIE-USB380\_340.exe
2. Follow the instruction to finish driver install.