User Manual
SKU: OSS-BP-416-ATX

Table of Contents

1   Product Information

Backplane with eight PCIe x4 Gen3 slots. Requires an OSS target adapter card (in the target slot) and OSS host adapter card (in the host computer).

- OSS target backplanes only support OSS target adapter cards.
- OSS PCIe backplanes support expansion cards (PCIe card) designed to the PCIe PCI-SIG specification.
- Target system or PCIe expansion chassis / board must have or use an ATX-style power supply.

1.1   Features

- One OSS PCIe x16 3.0 target slot (Upstream slot) for OSS Target cable adapter card.
- Eight PCIe x4 3.0 expansion slots (Downstream slot).
- X16 mechanical slot
- ATX power input

1.2   General Specification

- Dimension (H x L): 7.175" x 8.820"
- Power: Dual ATX
- Slots:
    - 1 OSS target slot, x16 mechanical and electrical (Gen3)
    - 8 PCIe x4 3.0 electrical; x16 mechanical

1.3   Block Diagram

1.3.1   Backplane

1.4   Supported Configuration

- Attached to one host server / computer.
- Two Cable adapter cards: One in the expansion backplane and the other in the host computer.
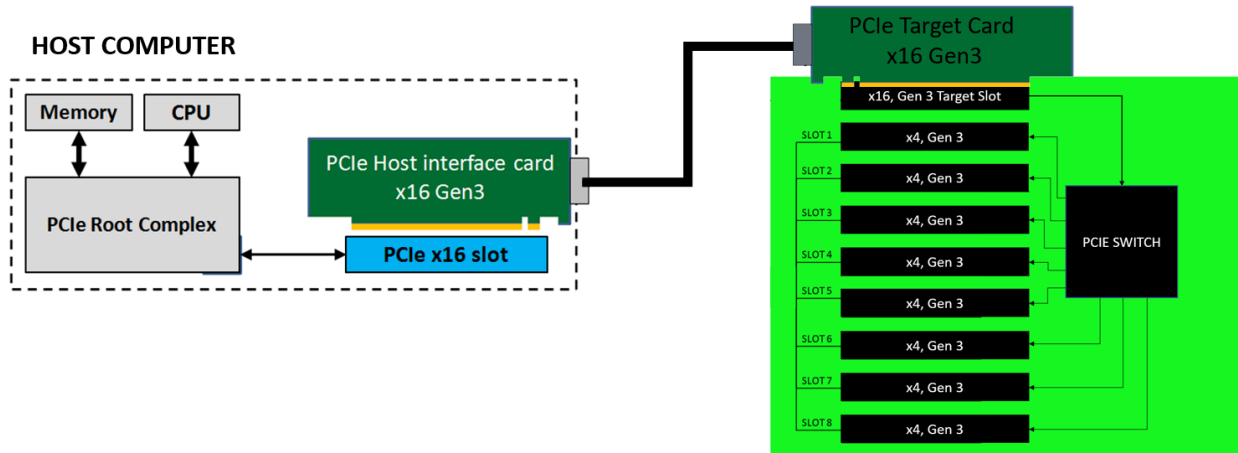
1.5   PCIe Slots and Ports Assignment

Each PCIe slot has its own port assignment, see picture below. There are 9 PCIe slots on the backplane (416 model), the Target slot (Upstream slot) which is assigned for the "Target Card" and 8 available slots for downstream devices (PCIe cards).

- All slots have their own corresponding port.
- The port assignments are hard-coded and cannot be modified.
- For example, a single GPU or PCIe card that is plugged into slot P2 on the backplane, port 1 will be automatically assigned to the card.
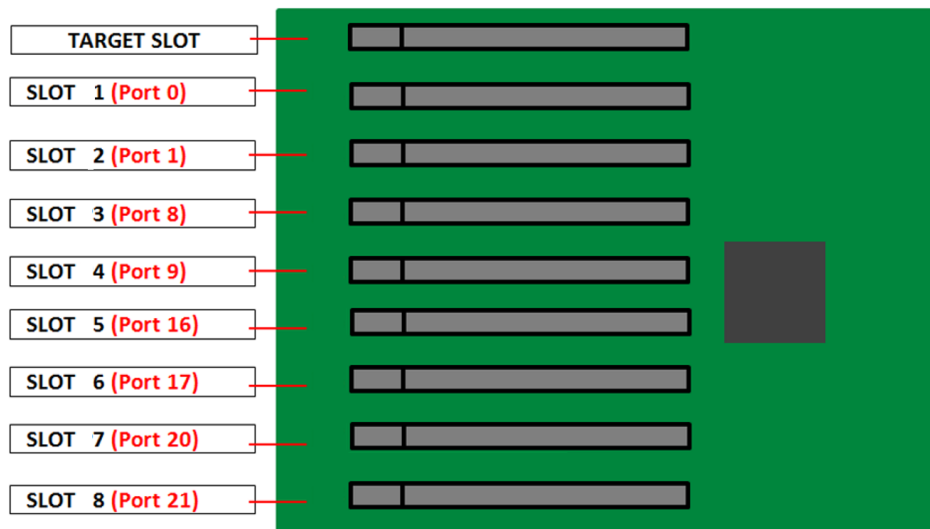
1.6   Dimension
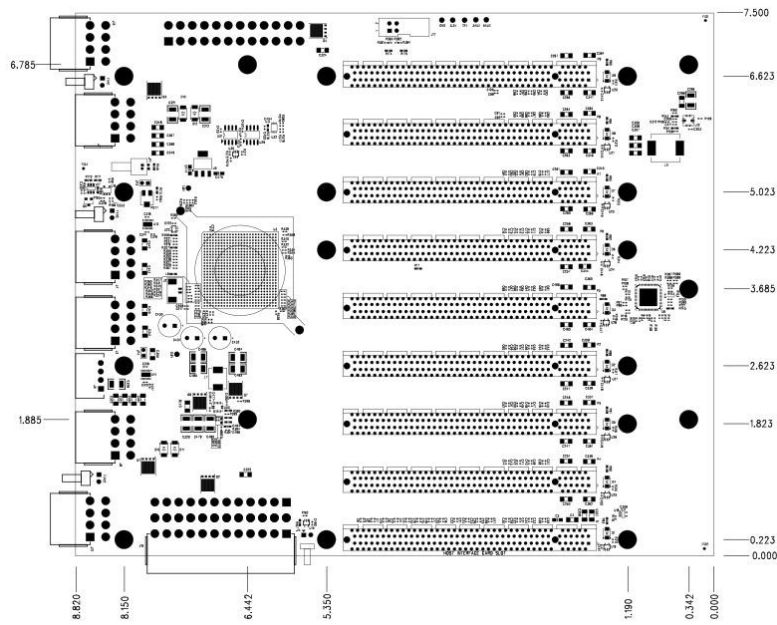
1.7   Overview of OSS-416 Board
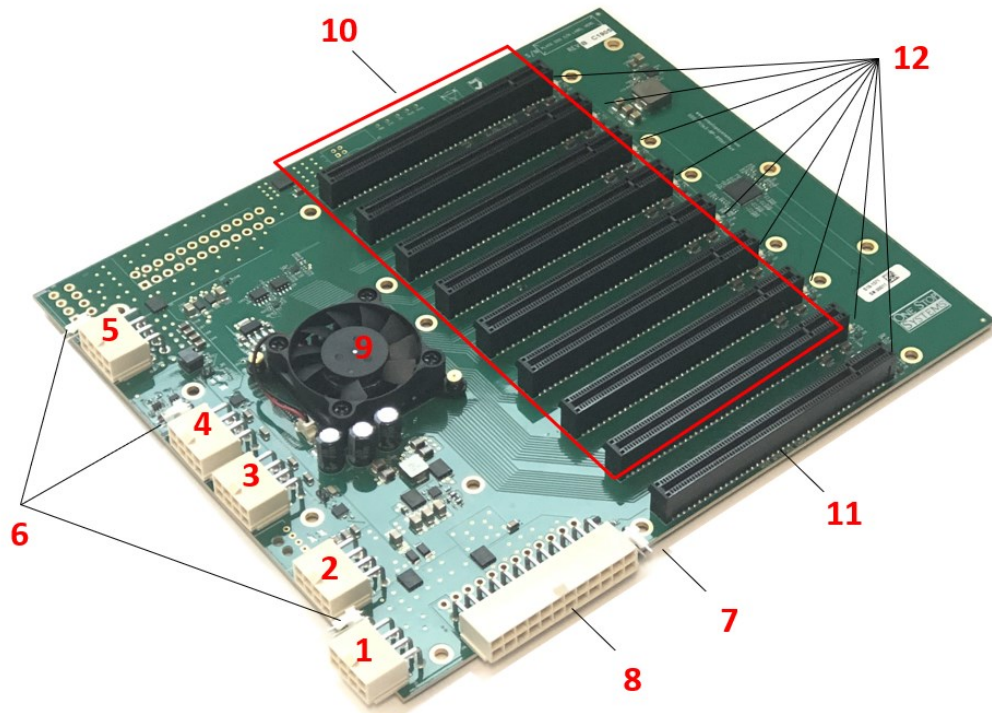
Item#	Name	Description
1	J12	12V input power for the 452 board when used in all configurations.
2	J8	12V output power for GPU (not used in Value Chassis)
3	J3	12V output power for GPU (not used in Value Chassis)
4	J4	12V output power for GPU (not used in Value Chassis)
5	J7	12V output power for GPU (not used in Value Chassis)
6	FAN1,FAN2, FAN3	Fan connectors
7	J14	FORCE PWRON (PSON)
8	J16	ATX 24pin Power Connector
9	PCIe Switch & Fan	PCIe Switch & Fan
10	P1 to P8	Downstream PCIe slots (x4 lane) for cards. x16 Mechanical, x4 Electrical
11	P0	Target Slot ; Upstream Port. x16 Mechanical, x16 Electrical
12	Slot LEDs	PCIe Gen Speed LED Indicator (Gen1, Gen2, Gen3)

1.8   Card Slot Link LEDs

Each slot has its own corresponding LED indicators. It will signify that a card is present in the slot and the "Generation" of the card (i.e Gen1, Gen2 or Gen3), see info below.

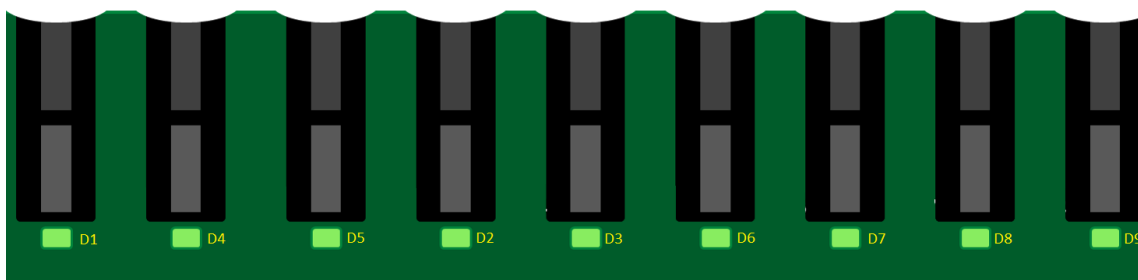| SLOT#	PORT	LED	Description	When Lit (Solid Green or blinking)	When Off
Slot 1	PORT 0	D4	Slot P4 Link	Solid - Gen 3 Link; Fast Blinking - Gen 2 Link, Slow Blinking - Gen 1 Link	OFF - Not Linked / No Card present in the slot
Slot 2	PORT 1	D5	Slot P5 Link	Solid - Gen 3 Link; Fast Blinking - Gen 2 Link, Slow Blinking - Gen 1 Link	OFF - Not Linked / No Card present in the slot
Slot 3	PORT 8	D2	Slot P2 Link	Solid - Gen 3 Link; Fast Blinking - Gen 2 Link, Slow Blinking - Gen 1 Link	OFF - Not Linked / No Card present in the slot
Slot 4	PORT 4	D3	Slot P3 Link	Solid - Gen 3 Link Fast Blinking - Gen 2 Link, Slow Blinking - Gen 1 Link	OFF – not Linked/ No Card present in the slot
Slot 5	PORT 16	D6	Slot P6 Link	Solid - Gen 3 Link Fast Blinking - Gen 2 Link, Slow Blinking - Gen 1 Link	OFF - Not Linked / No Card present in the slot
Slot 6	PORT 17	D7	Slot P7 Link	Solid - Gen 3 Link Fast Blinking - Gen 2 Link, Slow Blinking - Gen 1 Link	OFF - Not Linked / No Card present in the slot
Slot 7	PORT 20	D8	Slot P8 Link	Solid - Gen 3 Link Fast Blinking - Gen 2 Link, Slow Blinking - Gen 1 Link	OFF - Not Linked / No Card present in the slot
Slot 8	PORT 21	D9	Slot P9 Link	Solid - Gen 3 Link Fast Blinking - Gen 2 Link, Slow Blinking - Gen 1 Link	OFF - Not Linked / No Card present in the slot

1.9   Force Power ON

The 416 board has a connector for a shunt / jumper that will enable force power on. This is the J1 connector located next to the upstream slot where the Target card is plugged in.
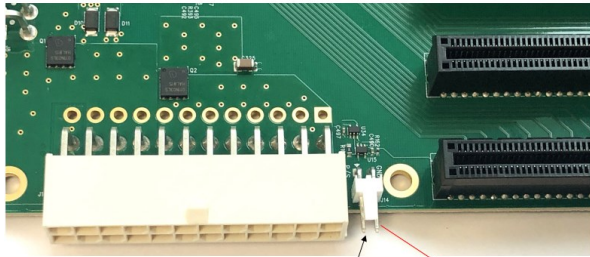
J14 Connector

Jumper / Shunt

1.9   Force Power ON

1.10 Connector Pin-Outs

Connector	Definition
J3, J4, J7, J8	Output power
J5	Thunderbolt Drive Power
J11, J13, J15, J16	Input Power
J14	Force Power On
J17	I2C Interface
JP1, JP5	Power Standby LED Connector
JP4	Fan Power Control

J3, J4, J7, J8—Output Power (Molex P/N: 87427-0802)

Pin	Definition	Pin	Definition
1	GND	5	+12V
2	GND	6	+12V
3	GND	7	+12V
4	GND	8	+12V

J4 – Force Power On (Molex P/N: 22-05-3021)

Pin	Definition
1	CE_PWR_ON#
2	GND

J5 – Thunderbolt Drive Power (Molex P/N: 43650-0400)

Pin	Definition
1	NC
2	GND
3	GND
4	VDD5VAUX

J11, J13, J16 – Input Power (Molex P/N:87427-2402)

Pin	Definition	Pin	Definition
1	+3.3V	13	+3.3V
2	+3.3V	14	-12V
3	GND	15	GND
4	+5V	16	PS_ON#
5	GND	17	GND
6	+5V	18	GND
7	GND	19	GND
8	PWRON	20	NC
9	+5VSB	21	+5V
10	+12V1	22	+5V
11	+12V1	23	+5V
12	+3.3V	24	GND

J15 – Input Power (Molex P/N:87427-2402)

Pin	Definition	Pin	Definition
1	GND	5	+12V
2	GND	6	+12V
3	GND	7	+12V
4	GND	8	+12V

J17 –I2C Interface Connector (3M P/N; 929710-10-02-RK)

Pin	Definition	Pin	Definition
1	SMCLK	2	GND
3	SMDAT	4	NC

JP1, JP5 – Power Standby LED (Samtec P/N; TFM-102-01-L-S-RA)

Pin	Definition
1	PU_3AUX
2	GND

FAN1, FAN2, FAN3 – Fan Speed Control (Molex P/N: 22-05-3021)

Pin	Definition
1	FAN_12V_PU
2	FAN-RTN

NOTE: Fan 3 is Temperature Controlled.

2   Hardware Requirements

This section provides the hardware parts needed for the OSS-416 board to work. It is strictly recommended to follow and use the hardware requirements listed below in order for the board to operate properly.

1. Computer / Server motherboard with x16 Gen3 PCIe slot.
2. OSS Host and Target adapter cards. The HBA (Host Bus Adapter) card or HIB (Host Interface Board) works in pair. Use the OSS adapter card below.
   o   OSS Gen3 x 16 Host and Target cards
3. One Ipass cable
   o   x16 Ipass Cable for x16 adapter card
4. Power Supply: Standard ATX power supply that has 8-pin 12V cable connector.

2.1   Computer Motherboard Requirement

Use a computer motherboard with a Gen3 x16 PCIe slots or Gen3 x4 PCIe slots.
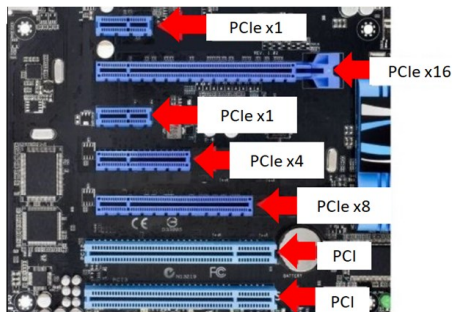
2.2   Host and Target Cards

Use x16 Host and Target cards.

• The Host card must be installed in an available x16 PCI Express card slot in the host computer's backplane or motherboard.

• The Target card must be installed in the Upstream slot of an OSS backplane. The Target card will only work on the Upstream slot.

Upstream Slot / Target Slot
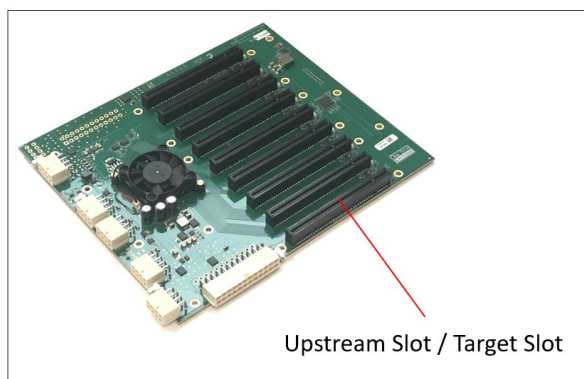
2.2.1   x16 Gen3 OSS Host and Target cards

The OSS x16 HBA / HIB cards must be used in pair. When using the x16 card, you must set the switches to proper operating mode. There are two modes, host and target. Photos below represent each card mode switch settings.

OSS HIB38-x16
Configured to Host mode

OSS HIB38-x16
Configured to Target mode

2.3   x16 Ipass Cable

Use x16 Ipass cables to link the host card and target card together.

- x16 host and target card, use x16 Ipass cable

x16 Ipass Cable

2.4   Power Supply

Standard ATX Power Supply: You can use a standard ATX Power Supply that has a 8-pin +12V power cable connector.

ATX Power Supply

8pin 12v
power connector

3   Software Requirement

1. Computer running Windows 10, Windows Server and or Linux based OS.
2. No driver is needed for the Host card, Target card and OSS-416 backplane.

4   Hardware Installation

The following steps will guide you through the installation of your OSS-416 board.

4.1   Installation-Procedures Overview

Below is the concise version on how to set up the OSS-416 board.

1.   Connect ATX 24-pin Power Supply
2.   Mount OSS-416 board
3.   Plug-in 12V PSU Cable Connector
4.   Install Target Card
5.   Install Host Card
6.   Connect link cable(s)
7.   Attach Power Cord
8.   Connect to Electrical Outlet
9.   Power-ON host computer
10.   Power Expansion Unit
11.   Hardware Check
12.   Verify Installation (via Operating System)
13.   PCIe card Installation
14.   PCIe HW Check or Verification

NOTE
It is highly recommended to install any 3rd party PCI-E cards / High Power PCIe cards after you have verified and tested the OSS expansion unit is working OK .

When installing 3rd Party PCIe card, start with one card first to determine if there are any software and hardware issues or incompatibility problems that may occur. This will help you in troubleshooting the problem more easily and efficiently. If everything works well and no configuration issues, you can proceed with the installation of the remaining 3rd party PCIe cards.

Always refer to or read "3rd party manufacturer installation guide" for further instructions.

4.2   Connect ATX 24-pin Power Cable

Connect the 24pin power supply cable to the ATX power connector on the OSS-416 backplane. The ATX power connector is either installed on the top or under the board.

The connector is keyed, so verify that it is properly aligned with the female onboard connector on the OSS-416 backplane before you attempt to seat it.

416 Backplane with ATX Power Connector under the board

ATX power supply 24 pin cable connector

Once both connectors are aligned, press down firmly the connector until fully seated. You'll require a significant pressure to seat the connector and should snap into place. The locking tab on the side of the connector should snap into place over the corresponding nub on the socket.

Locking Tab

Note A partially seated main ATX power connector may cause intermittent power failure.

4.3   Mount OSS-416 board

If you have an enclosure, mount the OSS-416 board in the enclosure and secure it.

4.4   Plug-in 12V PSU Cable Connector

Locate the 8-pin 12V power connector from the power supply. Photo below is an example of 8-pin 12V power cable connector.
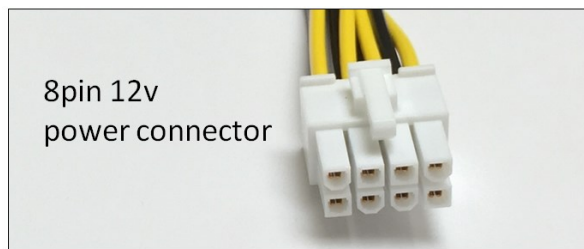

- The 8-pin 12V power connector is keyed to ensure proper mating with the 12V input power connector on the OSS-416 backplane.

- There is a single "12V input power connector" on the OSS-416 backplane. See photo below for the location of the 12V input power connector. Please DO NOT use the "12V Input Power Connector" as an Auxiliary power to provide power to your GPU or PCIe card.


12V Input Power

Once you have located the 12V power cable connector from the power supply, connect it to the 12V input power connector on the OSS-416 board.
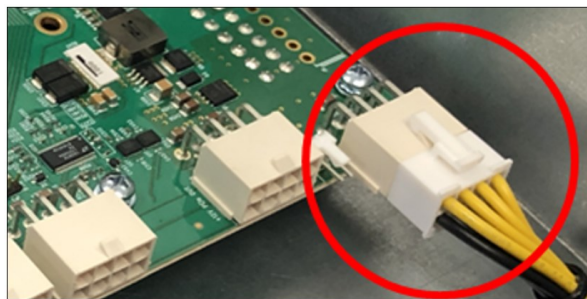

 Next step is to install the target and host cards. The target card is installed in the OSS-416 backplane Upstream slot. The host card is placed in the host computer motherboard PCIe slot.

4.5　Install Target & Host Card

Prior to installing the "Target card", verify the Dipswitch SW1 is set to target mode. See photo below for the switch settings.
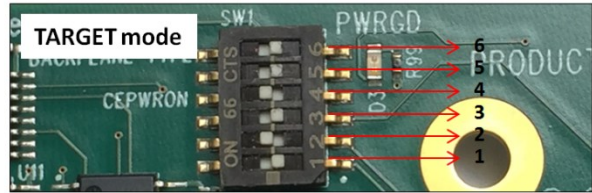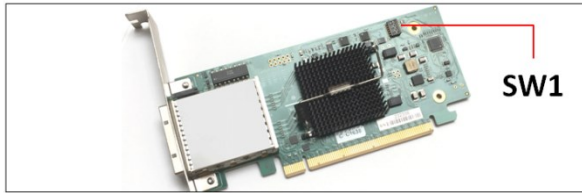
Once you have set the card to Target mode, install the card in the Upstream slot of the OSS-416 backplane.
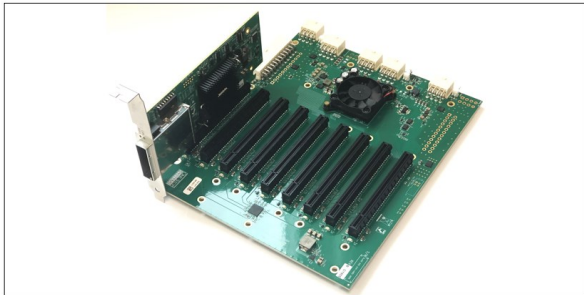
4.6　Install Host Card

Before installing the Host adapter card into PCIe slot, check the SW1 Dip switch is set to host mode, see picture below for correct switch settings.
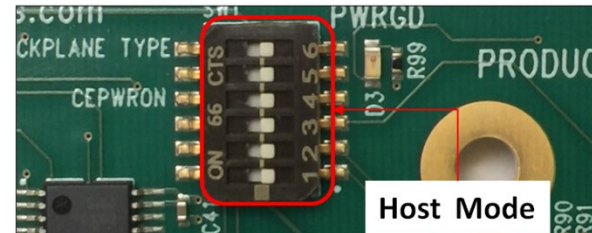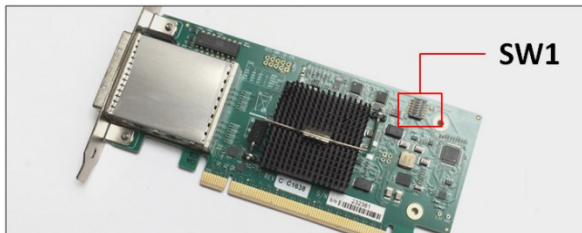
Once the switches are set to host mode, insert the host card into a vacant x16 PCIe slot by gently pushing the card until it is firmly seated then secure the card to the slot with a mounting screw, see next photos.
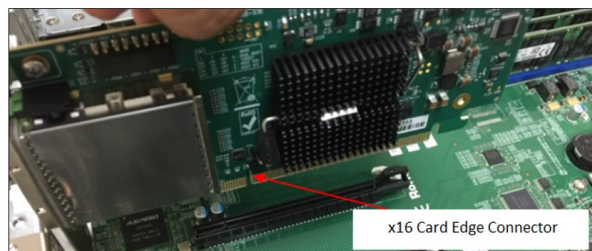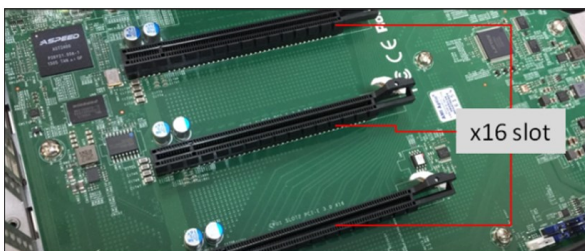
Photo below shows the location of the screw for securing the OSS adapter card.
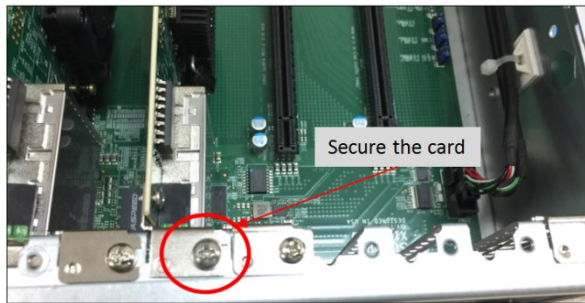
4.7   Connect Link Cable

In this section we are using an Ipass cable to link between host and target cards. Push the "Latch Metal Tab" on the cable while slowly inserting it into the cable-port of the interface card.
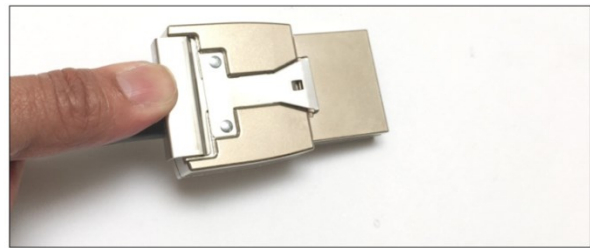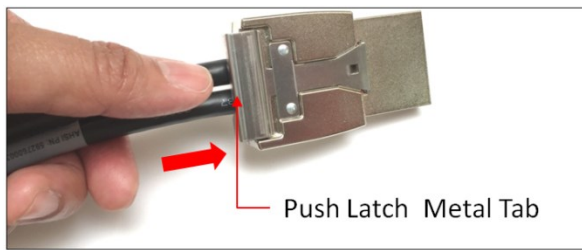
Carefully position the expansion chassis so that the supplied cable will conveniently reach from the host computer to the connectors on the back of the chassis. Then connect the cable to the OSS host card in the computer.
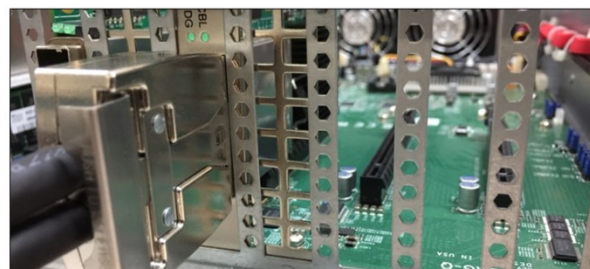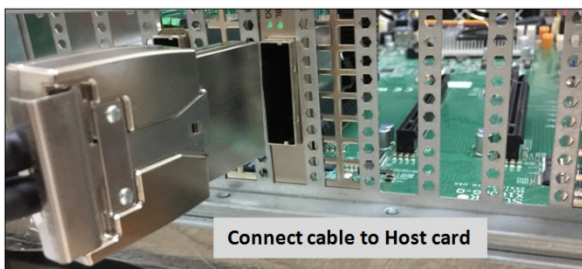
Connect the other one end of the cable to the target card.
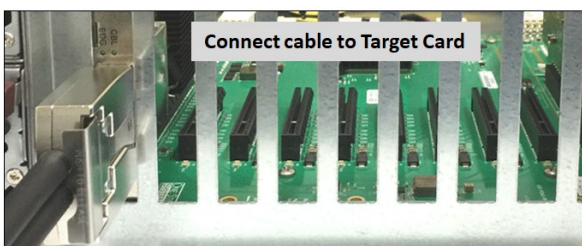
Make sure the cables are fully secured, check the metal tab is fully latched onto holes of the card, see photos below. This will prevent the cable from being dislodged or disconnected from the card.
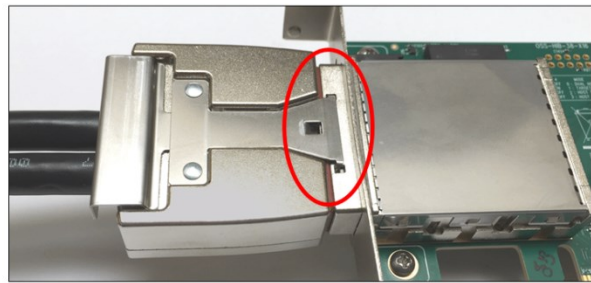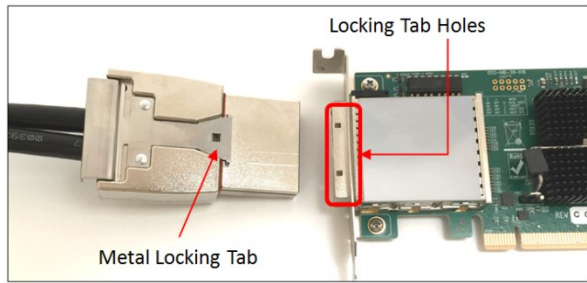
4.8   Connect Power Cord / Cable

Use a compatible and appropriate power cord. Plug the power cord into the back of the power supply receptacle. Ensure that the system's power supply unit is fully secured before connecting the power cord. Photos below are example of power cords that you can use.

Power Cord Voltage Table

Power Cord	PSU Watt	Voltage	AMPS	Hz
125V	1000W	100-127V	12-9.5A	50-60Hz
250V	1800W	200-220V	10-9.5A	50-60Hz
250V	1980W	220-230v	10-9.8A	50-60Hz
250V	2000W	230-240V	10-9.8A	50-60Hz

NOTE: When using 115-125V power cord you are limited to 1000W of power.

4.9   Connect to Electrical Outlet

It is highly recommended using a power surge to protect your gear against random power spike damage.
- If you are using a 250V power cord, you would need to connect that to a PDU (power distribution unit). You can buy the PDU on any online electronic stores. OSS does not sell the PDU.
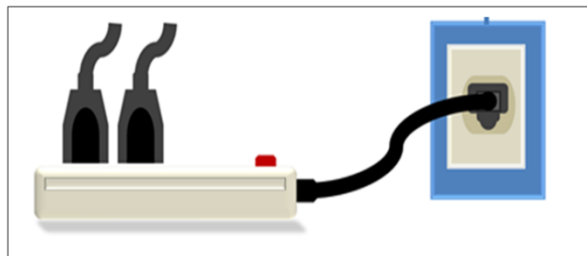
4.10 Power ON the Power Supply

Turn the power supply switch to ON position if your power supply unit has an ON/OFF switch. You can skip this step if the power supply does not have an ON/OFF switch.

4.11 Power ON the Host Computer

Before powering ON the Host computer, make sure the Host adapter card is seated correctly in the PCIe slot and the cable is firmly connected. Upon powering up the Host computer, the expansion board will turn ON automatically.

4.12 Power ON the Expansion Unit

When using the HIB38-x16 adapter card, the expansion system is switched ON automatically upon powering UP the Host system.
- A "Power On / Sideband" signal is sent to the cable initiating the expansion system to power ON.
- If the PS-ON connector on the OSS-backplane has a jumper / shunt, the backplane and adapter card will power UP immediately when power is attached or available.

5　Hardware Check

Once the host computer has booted up, check the expansion board and verify that all LEDs are correctly illuminated. An operational expansion board will show the following LEDs on the backplane and on the adapter cards.

1. **LinkUP LED:** Target card and Host card, CBL and EDG LEDs both should be illuminated as solid green.
2. **Target Slot LED "D1"** should be ON as solid green.

5.1　LinkUP LED (CBL & EDG)

The LED indicators (CBL & EDG) on both Target and Host cards will come up as solid green .This is an indication that a LINK between host and chassis has been established. The Linkup LEDs represent only an initial connection/handshake between the chassis and host computer. A successful linkup does not represent transfer or exchange of data.

1. The CBL LED shows the link status between the host card in the host computer and the target card in the expansion chassis.
2. The EDG / EDGE shows:
    a. HOST card – connection between host card and host system
    b. TARGET card – connection between the switch on the target card and the switch in the expansion chassis.

5.2　Target Slot & PWRGO LEDs

The "Target Slot LED" is located on the bottom part of PCIe slot. This LED (D1) should be ON as solid green. This represents that Link is up at Gen 3 speed. The PWRGO LED, signifies that the card is powered UP correctly.
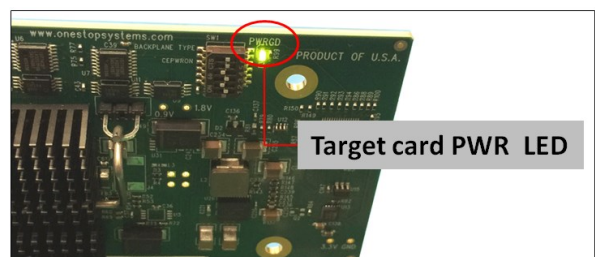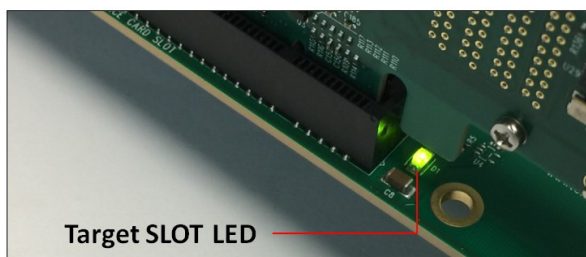
5.3   Check the LINK LEDs on both Host and Target cards

- Make sure you have a solid green LEDs on CBL and EDG.
- If only one LED is lit, this is an indication that you are not getting a good link between host and expansion unit. If this occurs, the host computer will not be detecting or recognizing your PCIe cards in the expansion unit.

5.4   How to verify OSS Device on Windows OS

Verify hardware device in Windows Operating System. As your Windows computer starts up, you will see a small message box pop-up in the lower-right corner of the screen to alert you that Windows has found new hardware.

To verify a successful installation on Windows, find the '**My Computer**' icon and "right-click" on it. Then select '*Manage*' from the pop-up menu. Next, click on '*Device Manager*' in the leftmost Computer Management window. Finally, click on the *View Menu* and select *View Devices by Connection.*
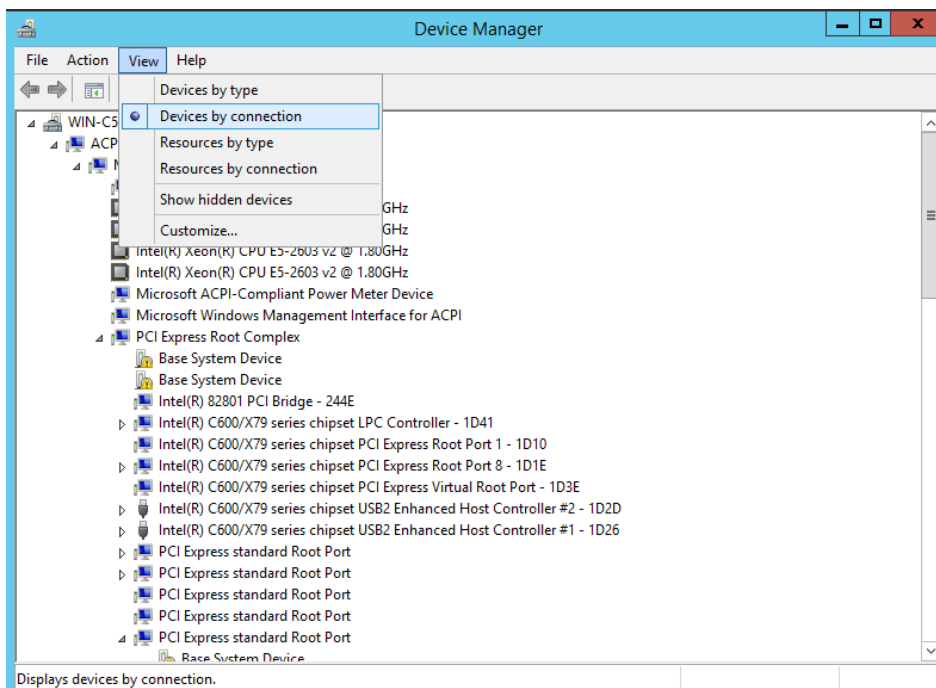
Open ACPI (BIOS) → Open PCI Bus→ Click the '+' sign several times until your reach a PCI Express Root Port Complex with PCI Express standard Upstream Switch Port and   PCI Express standard Downstream Switch Port.

When installed properly, you will see ten PCI Express standard Downstream Switch Ports below the PCI Express standard Upstream Switch Ports. The screenshot below represent the structure of one expansion board attached to a specific host computer.   It is either the 1st or 2nd backplane is attached to a specific host computer.
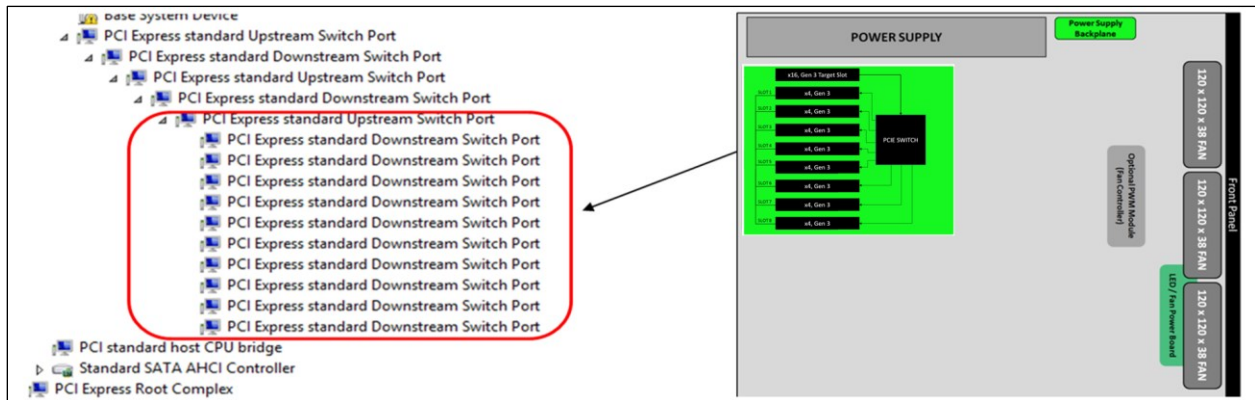
If the verification is successful, you may now proceed to installing your 3rdP Party PCIe Cards.

NOTE: If you are not seeing ten PCI Express standard Downstream Switch Ports (as shown from the above photos) in Windows Device Manager, it means the host computer is not recognizing or detecting the board. You may be having "faulty host card or target card" and "or may be having an intermittent backplane failure. For troubleshooting, try the following :

- Verify 2x PCIe x16 cables is firmly connected on both ends
- Verify Host/Target cards are firmly seated in both Host and 4UV Chassis
- Verify power is being properly applied to both Host and 4UV Chassis
- Verify LEDs are illuminated properly on 4UV Chassis
- Verify Dipswitch settings on Host/Target cards
- If the issue is not resolved, contact OSS customer support

5.5   How to verify OSS Device on Linux OS

On a Linux based system, the installation can be verified by typing the following command lines:

- **lspci –t** Displays the overall structure of the PCIe expansion system
- **lspci –vv** Lists additional information about the PCIe switch (in our case it will list the Integrated Device Technology (IDT) information.
- **lspci –vvv** Displays the most comprehensive information about the expansion system.

Typical output from lspci –vvv is verbose, but you can dig through the information to find very important information. There are so many registers and settings associated with PCI Express Switches.

Use the "lspci | grep "8749" command to check that the One Stop Systems card and slot devices are detected (see image below). Broadcom PLX is the PCIe switch (component) on the One Stop Systems expansion board.

```
[root@sca05-0a81fd86 Documents]# lspci | grep 8749
17:00.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:00.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:01.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:08.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:09.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:0c.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:0d.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:10.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:11.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:14.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
18:15.0 PCI bridge: PLX Technology, Inc. Device 8749 (rev ab)
[root@sca05-0a81fd86 Documents]#
```

6   PCIe Cards Installation

6.1   Install PCIe card(s)

Be sure to install the PCIe cards following the card manufacturer's recommendations. Some PCIe card manufacturers recommend that you install their software driver(s) prior to installing the hardware. If this is the case, you should install their driver or software before you connect and power up the expansion chassis.

The backplane PCIe slot can accommodate x2, x4, x4 and x16 PCIe cards. You can combine or mix different types of PCIe cards.

To install PCIe card, align the card on top of the slot. Gently push the card down until it is firmly seated. Make sure that all PCIe cards are secured.

To keep the cards in place, secure them in the enclosure with their retaining screws.

6.2   PCIe Cards Combination

The following photos are few examples of different combinations of PCIe cards that you can install in the 8-slot expansion board.

Sample 1: **All PCIe slots are populated with x4 single-wide GPU cards.**
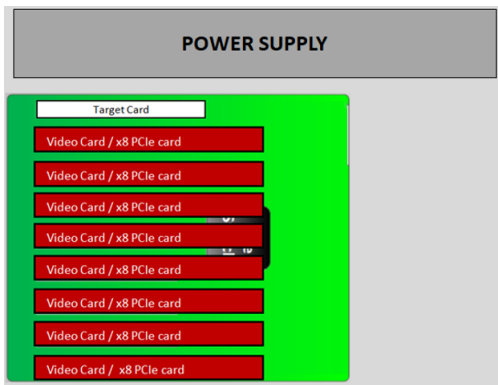
Sample 2: **All PCIe slots are populated with x4 PCIe cards**
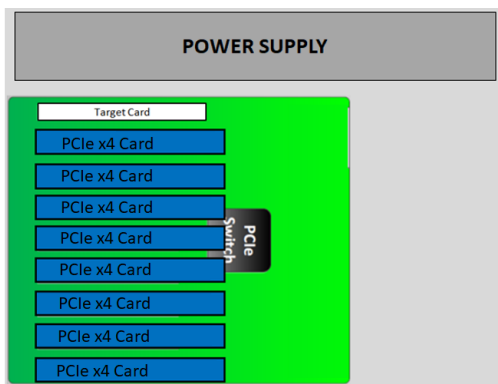
Sample 3: Populated with **mixed   x4 and x4 PCIe cards.**
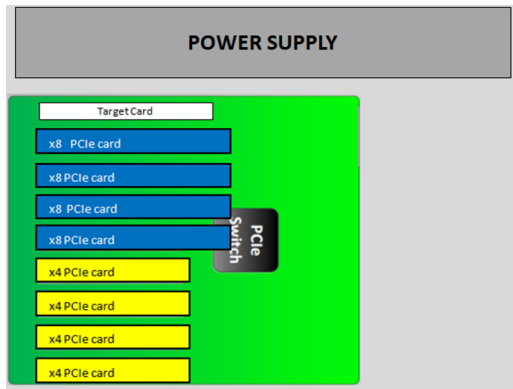
	IMPORTANT
Important	The sheer number of PCIe cards and device drivers available makes it impossible for One Stop Systems to fully test and certify all available PCIe cards for use in the One Stop Systems expansion chassis. Our best advice to you in this regard is to insist on full PCIe Specification compliance from your card and system vendors. Cards and systems should be at least PCIe Specification Revision 1.0 compliant or better. Compliance in your system motherboard, PCIe cards, and console firmware (or BIOS) is your best assurance that everything will install and operate smoothly.

- **<u>This particular expansion board is not applicable to run a double-wide x16 GPUs.</u>**

- If you are planning to use a full length x16 double-wide GPUs, you need a different expansion unit. The solution is to use the " 4U Value GPU Accelerator System (Model:OSS-PCIe-4UV-10-2), which is capable of running multiple high-end GPU application.
- Contact our Sales Team to find out more info on this product.

7   Verify or Check PCIe Cards

This section provides information on how to check / verify your PCIe cards on Windows OS and Linux. Use the following information for checking all of your PCIe cards installed in the OSS-416 expansion board are recognized or detected by the operating systems.

7.1   Check Slot LEDs

After the system is powered up, check inside the unit and pay attention on the slot LEDs.
- You should see all LEDs are illuminated, see pictures below. This is an indication that a card in the slot is recognized and detected.
- Depending on the type of PCIe card that is present in the slot will dictate the LED behavior.
- If there is no card present in the slot, the slot LED will be OFF.

SLOT LINK LEDs
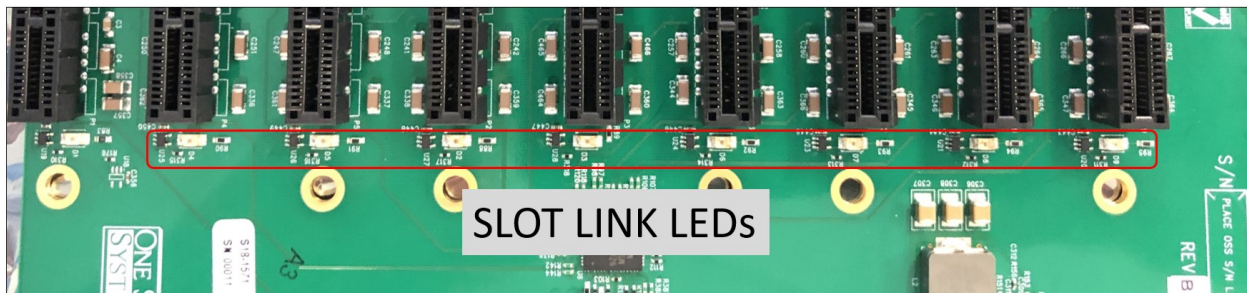
7.1.1   Slot LED Status indicators

- Off - Link is down; no PCIe card installed
- Slow blink - Link is up at Gen1 (1Hz)
- Fast blink - Link is up at Gen2 (2Hz)
- On (solid) - Link is up at Gen 3 speed

7.2   Check PCIe cards on Windows OS

When everything is functioning correctly, your Windows Device Manager should look something like the screenshot below. It represents one expansion board / backplane attached to one specific host computer.
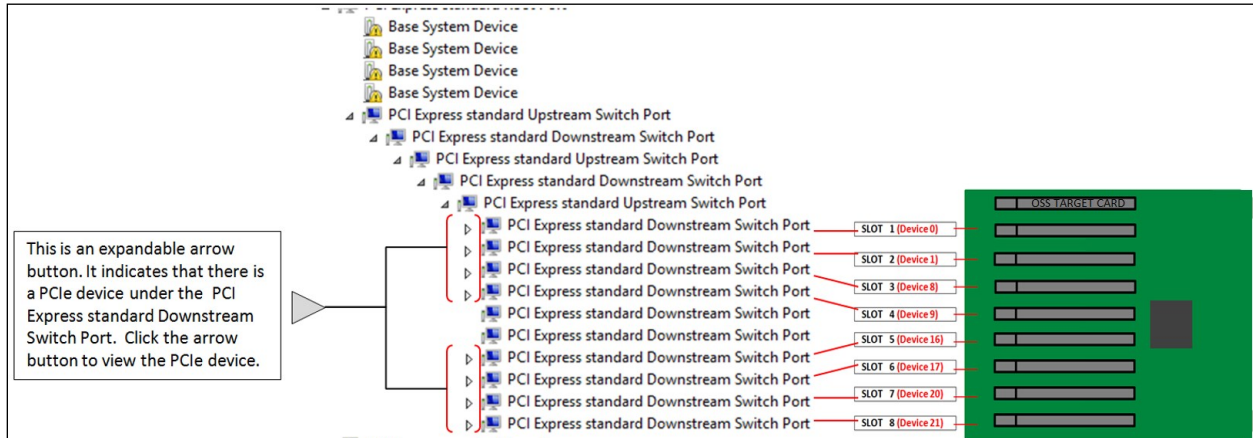
Expanding the arrow button will reveal the detected PCIe device or PCIe card beneath the PCI Express standard Downstream Switch Port. The example photo below shows eight PCIe cards that are detected and no errors (no yellow exclamation point).   This means all the PCIe cards are working correctly.

7.3   Check PCIe cards on Linux OS

To check on PCIe cards / devices, type **lspci – vtt or lspci -tv**

In this example, eight PCIe NMVE ssd cards that are enumerated / detected. These are the devices / cards that are installed in the expansion unit, see picture below.

```
                                                                           8 PCIe cards detected
|          \-1f.2  Intel Corporation Xeon E7 v4/Xeon E5 v4/Xeon E3 v4/Xeon D Power Control Unit
\-[0000:00]-+-00.0  Intel Corporation Xeon E7 v4/Xeon E5 v4/Xeon E3 v4/Xeon D DMI2
            +-01.0-[03-12]--
            +-02.0-[13-22]--+-00.0-[14-22]----08.0-[15-22]----00.0-[16-22]----00.0-[17-22]----00.0-[18-22]--+-00.0-[19]----00.0  HGST, Inc. Device 0023
            |               |                                                                               +-01.0-[1a]----00.0  HGST, Inc. Device 0023
            |               |                                                                               +-08.0-[1b]----00.0  HGST, Inc. Device 0023
            |               |                                                                               +-09.0-[1c]----00.0  HGST, Inc. Device 0023
            |               |                                                                               +-0c.0-[1d]--
            |               |                                                                               +-0d.0-[1e]--
            |               |                                                                               +-10.0-[1f]----00.0  HGST, Inc. Device 0023
            |               |                                                                               +-11.0-[20]----00.0  HGST, Inc. Device 0023
            |               |                                                                               +-14.0-[21]----00.0  HGST, Inc. Device 0023
            |               |                                                                               \-15.0-[22]----00.0  HGST, Inc. Device 0023
            |               +-00.1  PLX Technology, Inc. Device 87d0
            |               +-00.2  PLX Technology, Inc. Device 87d0
```

# 8	Contacting Technical Support

Our support department can be reached by fax at (858) 530-2733 or by phone at (858) 530-2511. Support is available Monday through Friday, 8:00 AM to 5:00 PM PT. When contacting One Stop Systems Technical Support, please be sure to include the following information:

1) Name	7) Serial Number
2) Company Name	8) Computer Make
3) Phone Number	9) Computer Model
4) Fax Number	10) Operating System and Version
5) Email Address	11) Make/Model of PCI cards in expansion chassis
6) Model Number	12) Detailed description of the problem

You can also visit our web site at: https://www.onestopsystems.com/support-0

To submit a support ticket or case, use our OSS Online Support portal: https://onestopsystems.desk.com/customer/portal/emails/new

For a quick response, use the Technical Support and RMA Request Form available in the Support Section of the website. Simply complete the form with all required information. Please make sure that your problem description is sufficiently detailed to help us understand your problem. For example: Don't say "Won't boot up." Do say "Tried all the steps in the Troubleshooting Section and it still won't boot up."

For faster diagnosis of your problem, please run the two utility programs described in the following sections and include the diagnostic files they generate with your email.

# 9	Returning Merchandise to One Stop Systems

If factory service is required, you must contact OSS Service Representative to obtain a Return Merchandise Authorization (RMA) number. Put this number and your return address on the shipping label when you return the item(s) for service. **One Stop Systems will return any product that is not accompanied by an RMA number**. Please note that One Stop Systems WILL NOT accept COD packages, so be sure to return the product freight and duties-paid.

Ship the well-packaged product to the address below:

RMA # _____
One Stop Systems
2235 Enterprise Street, Suite#110
Escondido, CA 92029
USA

It is not required, though highly recommended, that you keep the packaging from the original shipment of your One Stop Systems product. However, if you return a product to One Stop Systems for warranty repair/ replacement or take advantage of the 30-day money back guarantee, you will need to package the product in a manner similar to the manner in which it was received from our plant. One Stop Systems cannot be responsible for any physical damage to the product or component pieces of the product (such as the host or expansion interfaces for the PCIe expansion chassis) that are damaged due to inadequate packing. Physical damage sustained in such a situation will be repaired at the owner's expense in accordance with Out of Warranty Procedures. Please, protect your investment, a bit more padding in a good box will go a long way to insuring the device is returned to use in the same condition you shipped it in. Please call for an RMA number first.

10   Shipping / transporting the unit

GPU or PCIe cards should be removed from the slots when transporting or shipping the unit as this can break the slot and damage the card.

IMPORTANT

PCIe cards should be removed (or not to be installed) prior to shipping to avoid or prevent possible damage, failure to do so, will void the warranty of the unit..

11   APPENDIX A   Compliance

FCC

NOTE: 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 service personnel will be required to correct the interference at his own expense.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.
Changes or modifications not expressly approved by the party responsible for compliance could void the service personnel's authority to operate the equipment.

NOTE

The assembler of a personal computer system may be required to test the system and/or make necessary modifications if a system is found to cause harmful interferences or to be noncompliant with the appropriate standards for its intended use.

Industry Canada

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numériqué de la classe A est conformé à la norme NMB-003 du

Canada

CE

The product(s) described in this manual complies with all applicable European Union (CE) directives. One Stop Systems will not retest or

recertify systems or components that have been reconfigured by customers

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