Installation Guide

SKU: OSS-PCIe-HIB35-X4

OSS ONE STOP SYSTEMS

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Preface

Advisories

Five types of advisories are used throughout this manual to provide helpful information, or to alert you to the potential for hardware damage or personal injury.

NOTE
Used to amplify or explain a comment related to procedural steps or text.

IMPORTANT
Used to indicate an important piece of information or special "tip" to help you

CAUTION
Used to indicate and prevent the following procedure or step from causing damage to the equipment.

WARNING
Used to indicate and prevent the following step from causing injury.

DANGER or STOP
Used to indicate and prevent the following step from causing serious injury or significant data loss

Disclaimer: We have attempted to identify most situations that may pose a danger, warning, or caution condition in this manual. However, the company does not claim to have covered all situations that might require the use of a Caution, Warning, or Danger indicator.

Safety Instructions

Always use caution when servicing any electrical component. Before handling the expansion chassis, read the following instructions and safety guidelines to prevent damage to the product and to ensure your own personal safety. Refer to the "Advisories" section for advisory conventions used in this manual, including the distinction between Danger, Warning, Caution, Important, and Note.

- Always use caution when handling/operating the computer. Only qualified, experienced, authorized electronics personnel should access the interior of the computer and expansion chassis per UL and IEC 60950-1
- The power supplies produce high voltages and energy hazards, which can cause bodily harm.
- Use extreme caution when installing or removing components. Refer to the installation instructions in this manual for precautions and procedures. If you have any questions, please contact Technical Support.

WARNING

Never modify or remove the radio frequency interference shielding from your workstation or expansion unit. To do so may cause your installation to produce emissions that could interfere with other electronic equipment in the area of your system.

When Working Inside a Computer

1. Before taking covers off a computer, perform the following steps:
2. Turn off the computer and any peripheral devices.
3. Disconnect the computer and peripheral power cords from their AC outlets or inlets in order to prevent electric shock or system board damage.

In addition, take note of these safety guidelines when appropriate:

- To help avoid possible damage to systems boards, wait five seconds after turning off the computer before removing a component, removing a system board, or disconnecting a peripheral device from the computer.
- When you disconnect a cable, pull on its connector or on its strain-relief loop, not on the cable itself. Some cables have a connector with locking tabs. If you are disconnecting this type of cable, press in on the locking tabs before disconnecting the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before connecting a cable, make sure both connectors are correctly oriented and aligned.

CAUTION

Do not attempt to service the system yourself except as explained in this manual. Follow installation instructions closely.

Protecting Against Electrostatic Discharge

Electrostatic Discharge (ESD) Warning
Electrostatic Discharge (ESD) is the enemy of semiconductor devices. You should always take precautions to eliminate any electrostatic charge from your body and clothing before touching any semiconductor device or card by using an electrostatic wrist strap and/or rubber mat.

Static electricity can harm system boards. Perform service at an ESD workstation and follow proper ESD procedures to reduce the risk of damage to components. We strongly encourage you to follow proper ESD procedures, which can include wrist straps and smocks, when servicing equipment.

You can also take the following steps to prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not remove the component's anti-static packaging material until you are ready to install the component in a computer. Just before unwrapping the anti-static packaging, be sure you are at an ESD workstation or are grounded.

- When transporting a sensitive component, first place it in an anti-static container or packaging.

- Handle all sensitive components at an ESD workstation. If possible, use anti-static floor pads and workbench pads.

- Handle components and boards with care. Do not touch the components or contacts on a board. Hold a board by its edges or by its metal mounting bracket.

1   Introduction

The PCIe x4 Gen 2 cable adapter with PCIe switch (including NT port and DMA controller0 is a PCIe half-height add-in card with a PCIe x4 cable connector on the slot cover. It operates in upstream or downstream mode with Dipswitch setting change. The host cable adapter installs in the PCIe slot of a host server and the target cable adapter installs in the Target slot / Upstream slot of the OSS backplane.

Part numbers:

- OSS-PCIE-HIB35-x4-T (Target)
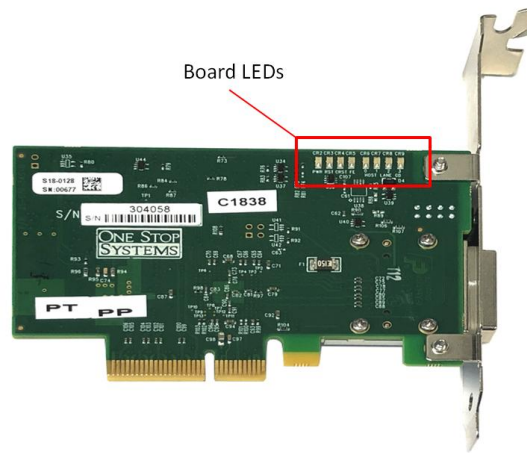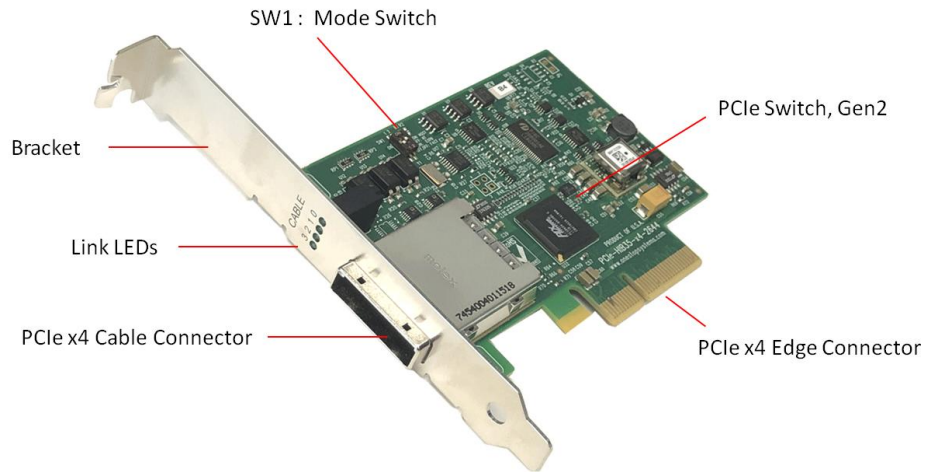- OSS-PCIE-HIB35-x4-H (Host)

1.1   Specifications

Item	Description
Form Factor	PCIe x4 half-height, half-length
Dimensions	2.7" x 3.895"
Bandwidth / Backplane Interface	PCIe x4 Gen2
Power	0.4A @ 12V
Connector	PCIe x4 Cable connector PCIe x4 Edge connector
PCIe Switch	5.0 Gbps 4-lane PCIe Gen2 PLX PEX8609
Bracket	Standard and low profile brackets available With two LEDs on the bracket
Operating Temperature	0˚C to +50˚C environment
Operating Humidity	10% to 90% relative humidity non-condensing
Storage Humidity	5% to 95% relative humidity non-condensing
Shock	30g Acceleration Peak (11ms pulse)
Industry Specifications	• PCIe External Cabling Specification, Rev. 1.0 • PCI Express™ Card Electromechanical • Specification, Rev. 2.0 • PCI Express ® Base Specification, Rev. 3.0 • ATX Specification, Version 2.2
Agency Compliance	• FCC Class B • CE • RoHS
Operating System	Windows 10, Windows Server 2012 R2; Linux OS based

1.2   Features:

- Fits into PCIe x4, x8, or x16 slot
- Operates in Host and Target modes (with Dipswitch setting change)
- Supports Spread Spectrum Clock Isolation
- Low Profiler Design
- Bracket LINK LED status indicator
- 8-Lane switch with built-in DMA controller
- Ipass x4 external cable connector

1.3   Overview

SW1 : Mode Switch

PCIe Switch, Gen2

Bracket

Link LEDs

PCIe x4 Cable Connector

PCIe x4 Edge Connector

Board LEDs

1.4   PCIe Card Edge x4

- The PCIe Card edge will be directly routed x4 interface to the PLX Chip
- In host mode, the add-in card will accept a clock as an input.
- In target mode, the add-in card will drive a clock. It will also provide a reset output and a PS_ON# signal.

1.5   Power

- Power is provided by the PCI-e card slot.
- Power required by internal components of **OSS-PCIe-HIB-35-x4** is estimated to be 4 watts when both ports are fully linked and operating in Gen2 mode.
- Cable power is to be provided per PCIe cable specification. When an active cable (powered transceiver) is used, additional power is required from the PCI-e card slot.
- Power will be supplied +3.3V, +3.3Vaux through Card Edge.
- Some power rails will be derived from the onboard circuitry.

1.6   PCIe Cable Sideband signals

- All Cable sideband signals CPERST#, CPWRON, CPRSNT#, CWAKE# to be connected per the PCIe Cable specification.
- Additional isolation of signal CE_PWRON# (card edge power control) shall be provided by a physical switch.
- This switch allows user to electrically isolate this signal from the card edge connector.

*The target card and expansion unit are powered UP instantly upon turning ON the host computer.

1.7   PLX PEX8609

- Supports Non Transparent Bridging
  - The "Non-Transparent Bridging" (NTB) function enables isolation of two hosts or memory domains yet allows status and data exchange between the two hosts or sub-systems
- Integrated DMA Engine (with four DMA channels and internal buffer space)
- 8 Lane / 8 port PCIe Switch
- PCIe Gen2 (5.0 GT/s)
- Spread Spectrum Clock Isolation

1.8   Link LEDS

The four LINK status LEDs on the slot cover (bracket) show lanes that have successfully linked. Lanes 1-4 are represented by LED 0-3

- OFF – Link is down
- ON – Link is UP, 5.0 GT/s
- Flashing LEDs – Train Unsuccessful
- Blinking, 0.5 seconds ON and 0.5 seconds OFF – Link is up, 2.5 GT/S
- One Green LED will show power ON

1.9   Board LEDs

There are two sets of 4 LEDs on the back of the HIB35-x4. They are located in the upper right hand corner of the board. The first set is labeled as follows:

- PWR--Power good
- RST—Card edge Reset
- CRST—Cable Reset
- FE—PEX Fatal Error. One Red led on the card indicates a switch failure (labeled as FE)
- Power LED should always be solid when the card is active.
    - o   RST and CRST will flash when reset occurs.
    - o   FE will be lit only when the PCIe switch has detected a fatal error.
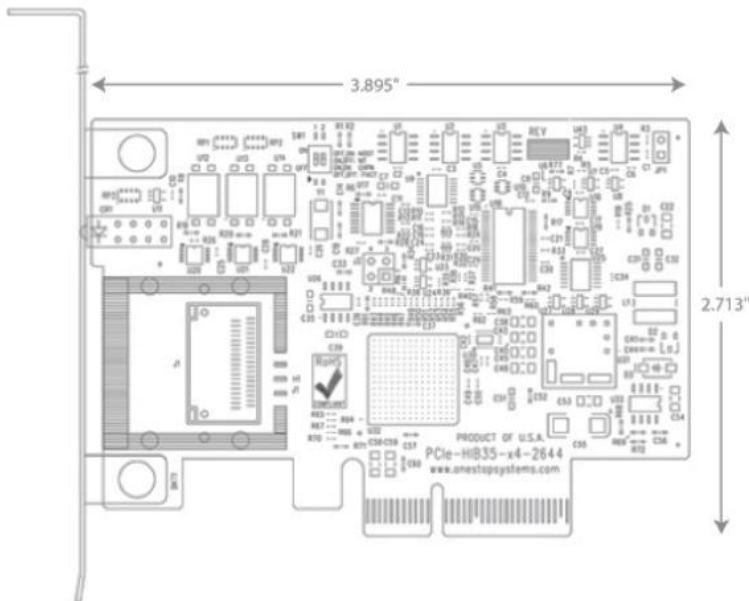
The second set of 4 LEDs show the PCIe lane width connection through the card edge to host system. LEDs 0-3 represent lanes 1-4. These LEDs will be solid when a link is established and off when there is NO link. If an LED is flashing, the link is training unsuccessfully.
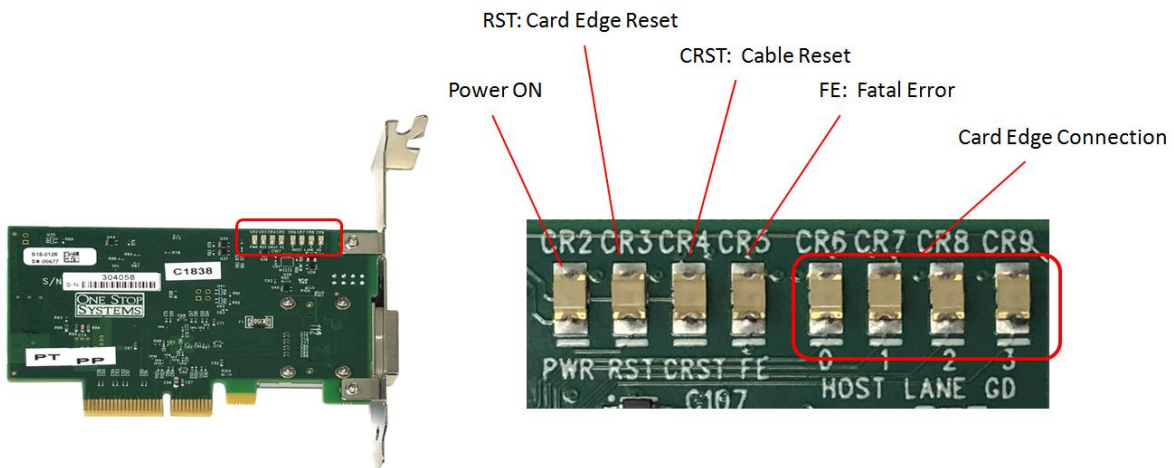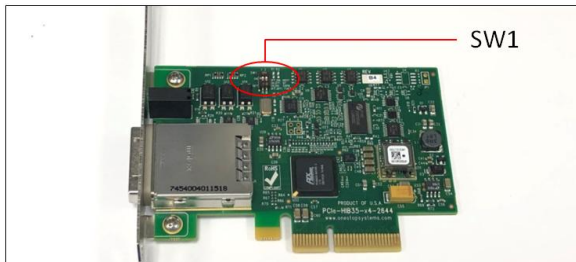
## 1.10 Block Diagram
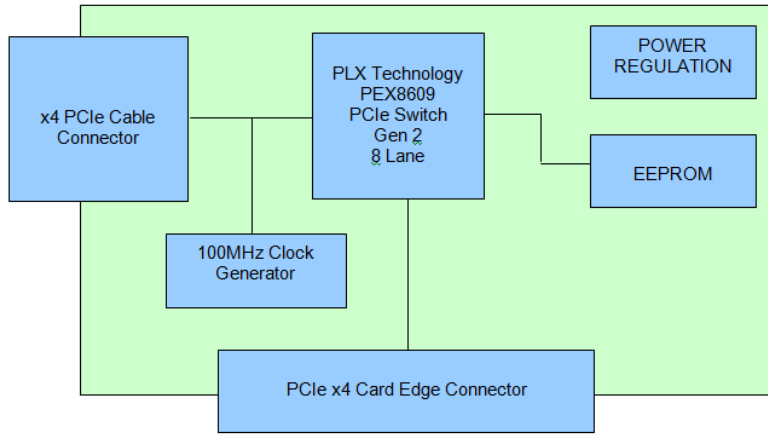
1.11 Dimensions

1.12   HIB card Operating Modes

1.   Mode 1: Target Mode: In this mode, the SW1 dipswitches 1 and 2 are set to ON position. The card is ready to operate in Target mode and must be plugged into an OSS expansion backplane "Upstream slot".

Target Mode

2.   Mode 2: Host Mode. In this mode, the SW1 dipswitch 1 is set to OFF and dipswitch 2 is ON. The card is ready to operate in Host mode and it must be plugged into computer's motherboard PCIe slot. Use Gen2 x16, x8 or x4 PCIe slot.
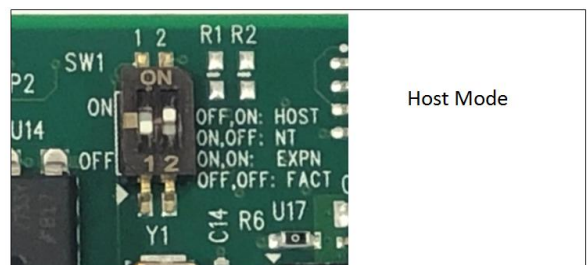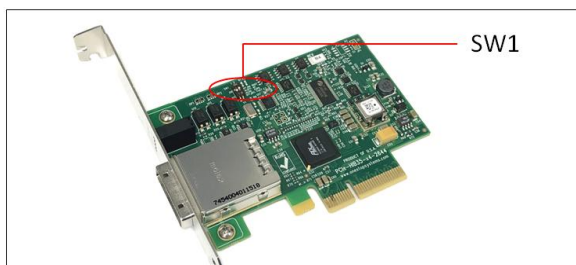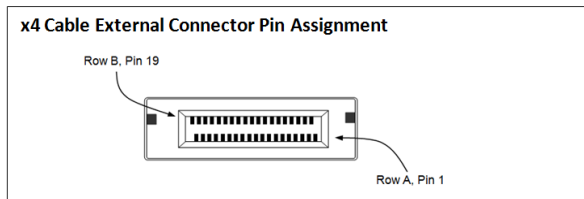

Host Mode

When the card dipswitch is configured to operate in Host mode, it cannot be installed in a target slot (Upstream slot) on the OSS expansion backplane. It must be installed in the computer's motherboard PCIe slot.

1.13   PCI Express x4 Card Edge Connector Pin Outs

x4 Card Edge Connector
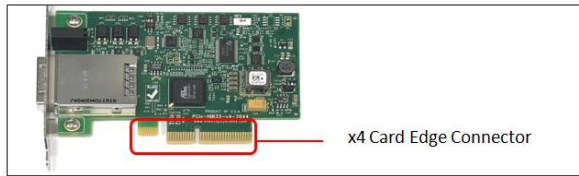
Pin #	Name	Pin #	Name	
B1	+12V	A1	PRSNT1#	
B2	+12V	A2	+12V	
B3	+12V	A3	+12V	
B4	GND	A4	GND	
B5	SMCLK	A5	TCK	
B6	SMDAT	A6	TDI	
B7	GND	A7	TDO	
B8	+3.3V	A8	TMS	
B9	TRST#	A9	+3.3V	
B10	3.3Vaux	A10	+3.3V	
B11	WAKE#	A11	PERST#	Mechanical Key
B12	RSVD	A12	GND	
B13	GND	A13	REFCLK+	
B14	PETp0	A14	REFCLK-	
B15	PETn0	A15	GND	
B16	GND	A16	PERp0	
B17	PRSNT2#	A17	PERn0	
B18	GND	A18	GND	End of the x1 Connector
B19	PETp1	A19	RSVD	
B20	PETn1	A20	GND	
B21	GND	A21	PERp1	
B22	GND	A22	PERn1	
B23	PETp2	A23	GND	
B24	PETn2	A24	GND	
B25	GND	A25	PERp2	
B26	GND	A26	PERn2	
B27	PETp3	A27	GND	
B28	PETn3	A28	GND	
B29	GND	A29	PERp3	
B30	RSVD	A30	PERn3	
B31	PRSNT2#	A31	GND	
B32	GND	A32	RSVD	End of the x4 Connector

1.14 x4 Cable Wire Connections / Pin Outs

x4 Cable External Connector Pin Assignment

Row B, Pin 19

Row A, Pin 1

Pin #	Cable Side 1		Cable Side 2	Pin #
A1 A4 A7 A10 A13 A16 B1 B4 B7 B10 B13	GND	Drain Wires	GND	A1 A4 A7 A10 A13 A16 B1 B4 B7 B10 B13
A2	PETp0	Differential Pair	PERp0	B2
A3	PETn0		PERn0	B3
A5	PETp1	Differential Pair	PERp1	B5
A6	PETn1		PERn1	B6
A8	PETp2	Differential Pair	PERp2	B8
A9	PETn2		PERn2	B9
A11	PETp3	Differential Pair	PERp3	B11
A12	PETn3		PERn3	B12
A14	CREFCLK+	Differential Pair	CREFCLK+	A14
A15	CREFCLK		CREFCLK-	A15
A17	SB_RTN	Hook-up Wire	SB_RTN	A17
A18	CPRSNT#	Hook-up Wire	CPRSNT#	A18
A19	CPWRON	Hook-up Wire	CPWRON	A19
B2	PERp0	Differential Pair	PETp0	A2
B3	PERn0		PETn0	A3
B5	PERp1	Differential Pair	PETp1	A5
B6	PERn1		PETn1	A6
B8	PERp2	Differential Pair	PETp2	A8
B9	PERn2		PETn2	A9
B11	PERp3	Differential Pair	PETp3	A11
B12	PERn3		PETn3	A12
B14	PWR	NC	PWR	B14
B15	PWR	NC	PWR	B15
B16	PWR_RTN	NC	PWR_RTN	B16
B17	PWR_RTN	NC	PWR_RTN	B17
B18	CWAKE#	Hook-up Wire	CWAKE#	B18
B19	CPERST#	Hook-up Wire	CPERST#	B19
Backshell	Chassis Ground	Overall Cable Braid	Chassis Ground	Backshell

*NC: Not Connected

1.15 x4 Cable Signal Descriptions

PIN #	Signal	Description
A1	GND	Ground reference for PCI Express transmitter Lanes
A2	PETp0	Differential PCI Express transmitter Lane 0 5
A3	PETn0	Differential PCI Express transmitter Lane 0 5
A4	GND	GND Ground reference for PCI Express transmitter Lanes
A5	PETp1	Differential PCI Express transmitter Lane 1 5
A6	PETn1	Differential PCI Express transmitter Lane 1
A7	GND	Ground reference for PCI Express transmitter Lanes
A8	PETp2	Differential PCI Express transmitter Lane 2
A9	PETn2	Differential PCI Express transmitter Lane 2
A10	GND	Ground reference for PCI Express transmitter Lanes
A11	PETp3	Differential PCI Express transmitter Lane 3
A12	PETn3	Differential PCI Express transmitter Lane 3
A13	GND	Ground reference for PCI Express transmitter Lanes
A14	CREFCLK+	Differential 100MHz cable reference clock
A15	CREFCLK	Differential 100MHz cable reference clock
A16	GND	GND Ground reference for cable reference clock
A17	SB_RTN	Signal return for single ended sideband signals
A18	CPRSNT#	Used for detection of whether a cable is installed and the downstream subsystem is powered
A19	CPWRON	Turns power on / off to slave-type downstream subsystems
B1	GND	Ground reference for PCI Express receiver Lanes
B2	PERp0	Differential PCI Express receiver Lane 0
B3	PERn0	Differential PCI Express receiver Lane 0
B4	GND	Ground reference for PCI Express receiver Lanes
B5	PERp1	Differential PCI Express receiver Lane 1
B6	PERn1	Differential PCI Express receiver Lane 1
B7	GND	Ground reference for PCI Express receiver Lanes
B8	PERp2	Differential PCI Express receiver Lane 2
B9	PERn2	Differential PCI Express receiver Lane 2
B10	GND	Ground reference for PCI Express receiver Lanes
B11	PERp3	Differential PCI Express receiver Lane 3
B12	PERn3	Differential PCI Express receiver Lane 3
B13	GND	Ground reference for PCI Express receiver Lanes
B14	PWR	+3.3VCable power
B15	PWR	+3.3VCable Power
B16	PWR RTN	Cable power return
B17	PWR RTN	Cable power return
B18	CWAKE#	Power management signal for wakeup events (optional)
B19	CPERST#	Cable PERST#

PETp(x)	PCI Express Transmit Positive signal of (x) pair.
PETn(x)	PCI Express Transmit Negative signal of (x) pair.
PERp(x)	PCI Express Receive Positive signal of (x) pair.
PERn(x)	PCI Express Receive Negative signal of (x) pair.
CREFCLK+/-	Cable REFerence CLocK: Provides a reference clock from the host system to the remote system.
SB_RTN	Return path for single ended signals from remote systems.
CPRSNT#	Cable Present: Indicates the presence of a device beyond the cable.
PWR	Power: Provides local power for in-cable redriver circuits. Only needed on long cables (Power does not go across the cable.)
PWR_RTN Po	Provides local power return path for PWR pins.
CWAKE#	Cable WAKE
CPERST#	Cable PCI Express Reset

2   Hardware Requirements

The following steps will guide you through the installation of your HIB35-x4 Host and Target cards.

## 2.1   Hardware & System Requirements

1.   Computer / Server motherboard with x4 or x8 Gen2 PCIe slot
2.   HIB35-x4-H, qty 1: Host card
3.   HIB35-x4-T, qty 1: Target card

NOTE: The HIB35-x4 card works in pair (one as host card and other as target card)

4.   One x4 iPass cable
5.   OSS Expansion chassis with Gen2 backplane, or OSS expansion backplane and power supply.

2.1.1   HIB35-x4 card (Host and Target)

A pair of HIB35-x4 card (Target and Host cards)
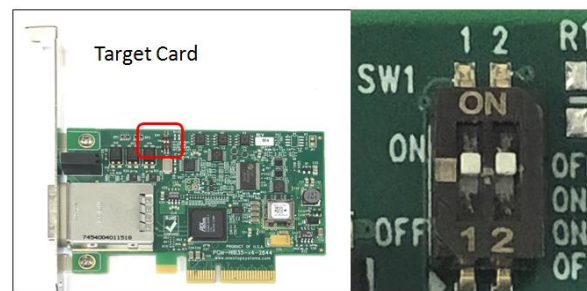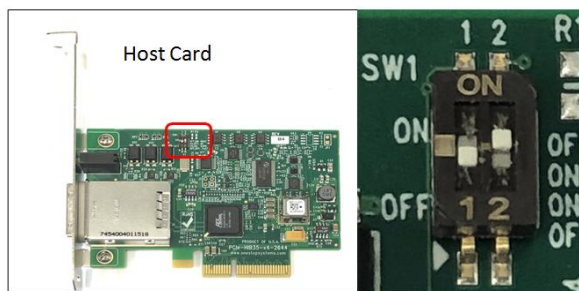
2.1.2   PCIe Slot & Motherboard Requirement

 For Host Adapter card: Use a server-computer type motherboard that has a Gen2 x8, x4 or x16 PCIe slot in order for the card to operate to its max performance. The Host adapter card is recommended to be installed in a x16 connector.

2.1.3   x4 iPass Cable

Use x4 iPass cable for connecting between host card and target card.

2.1.4   Expansion Chassis / backplanes

You need an expansion chassis with Gen2 or Gen3 backplane . Photos below are example of an OSS backplanes and an expansion unit. OSS offers a multitude of expansion units and expansion backplanes, please visit our website to get further details on all products. Here is the web link: https://www.onestopsystems.com

The HIB card has custom pin out that unique to OSS and only OSS Target adapters will work in the upstream slot of our expansion backplanes.
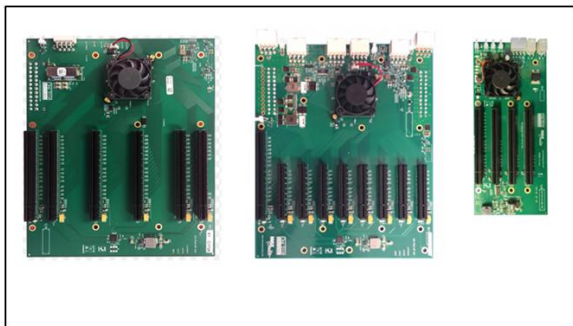
OR

2.1.5   ATX Power Supply

If you are using an OSS backplane with the HIB35-x4 card you need a power supply unit to provide power. A standard ATX power supply will work with the boards.

2.2   Software Requirement

1.   Computer running Windows 7, 8, 10 and or Server
2.   No driver is needed for the OSS-HIB35-x4

3   Installation Procedures

3.1   Configure Dipswitches

Select the appropriate card to use makes sure you have the correct host and target cards. Below are photos to help you identify between Target card and Host card.

Set the Dipswitch settings on each card. When using the card as host, set the SW1 Dipswitch 1=OFF and 2=ON. When using the card as target, set the SW1 Dipswitches 1 & 2 to ON.
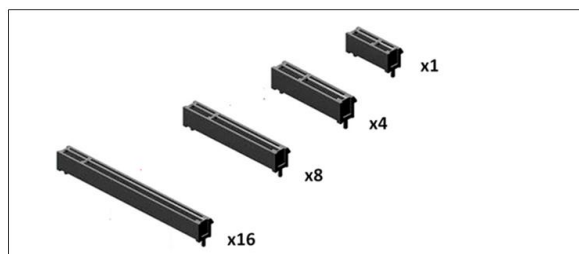

3.2   Install HIB Host card

Power down the host computer first before installing the host card. Do not install the host card while the computer is ON.

- Install the HIB35-x4 host card into the available PCIe slot in the computer's motherboard. Use a x4, x8 or x16 Gen2 PCIe slot.
- Make sure to secure the card with a screw.
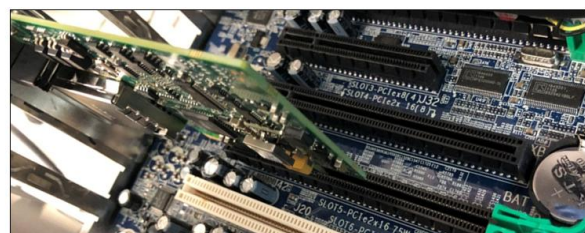
3.3   Install HIB Target card

⚠️ **Caution**   Do not plug in the target card while expansion unit or the expansion backplane is ON as this can damage the board. Turn OFF the unit first before installing the card.

Important   The HIB Target card will only work in the OSS backplane "Upstream" slot. It will not function in the downstream slot or the end-point slot of the backplane.

Install the Target card in the OSS expansion backplane. Plug-in the target card in the "Upstream" slot.

Upstream PCIe Slot

Target Card
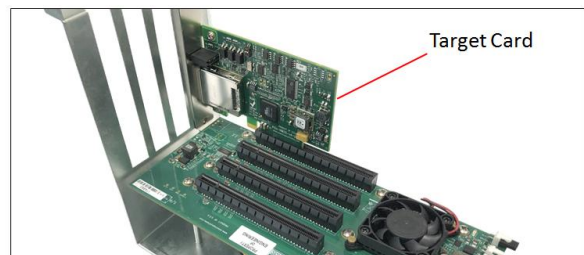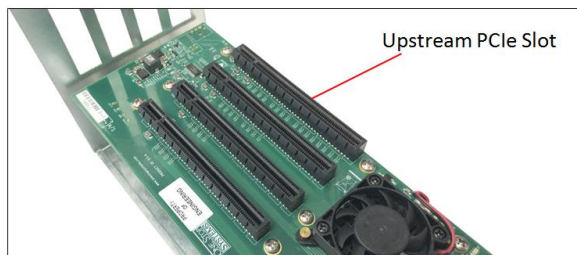
Photos below are different backplanes showing where the location of the "Upstream" slot.

Downstream Slots

Upstream Slot / Target Slot

Target card

Downstream Slots

Upstream Slot / Target Slot

Target card
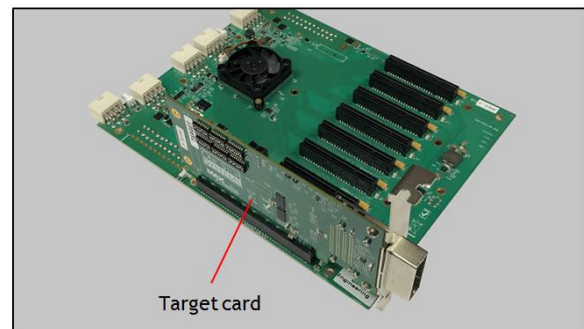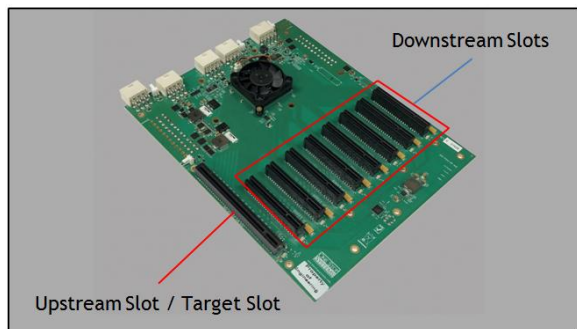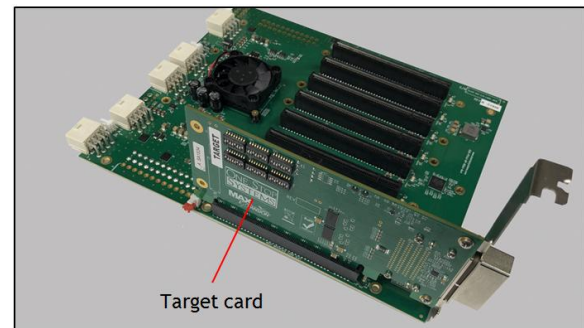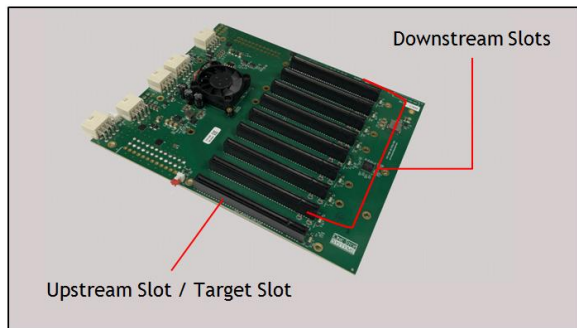
3.4 Install PCIe card

Plug-in your 3rd party PCIe card in the expansion backplane. Use the downstream slot on the OSS backplane. See photos below showing where the location of the downstream slot / end-point slot.

Downstream PCIe Slots

Downstream Slots

Upstream Slot / Target Slot

Downstream Slots

Upstream Slot / Target Slot
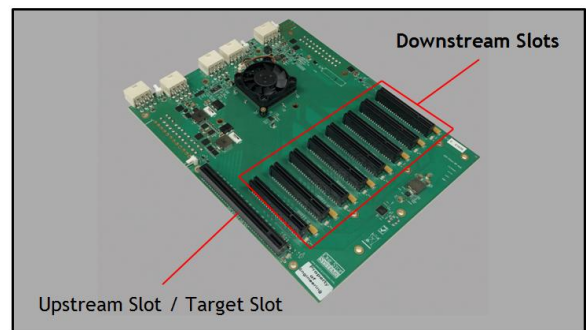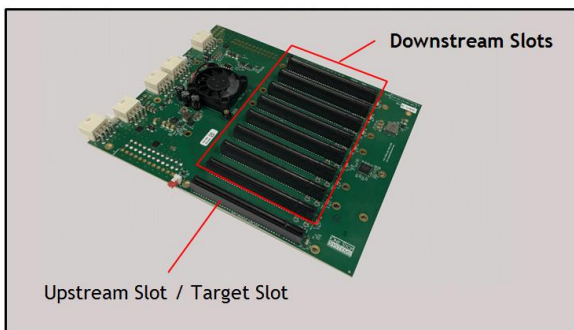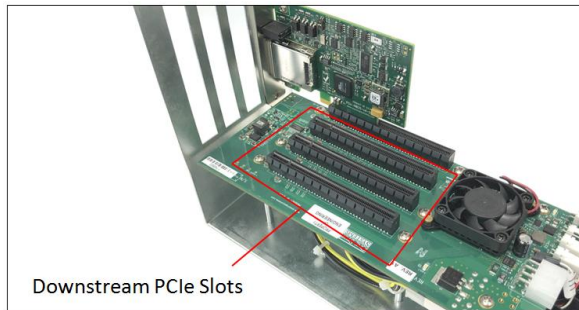
3.5 Install link cable

- Connect the PCIe iPass x4 cable between the Host and Target cards. Plug in the cable to the Host card.
- Plug in the other end of the cable to the target card. Make sure the cable is firmly latched in to the cable connectors of the card.
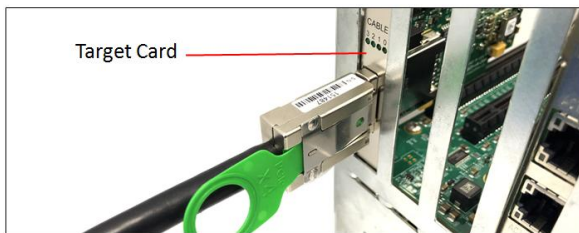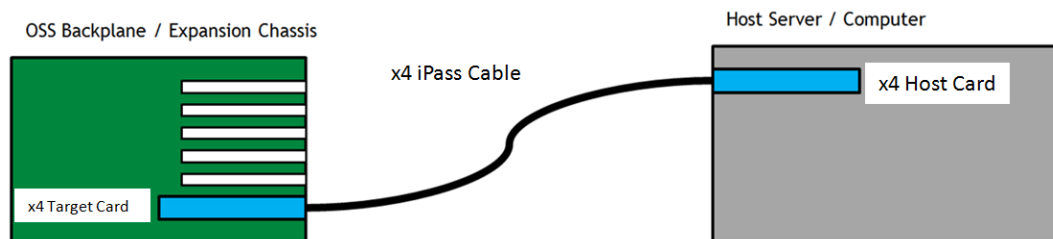

Target Card

Host Card

Photo below is a block diagram of an OSS expansion unit linked to a host server / computer.

OSS Backplane / Expansion Chassis

x4 iPass Cable

Host Server / Computer
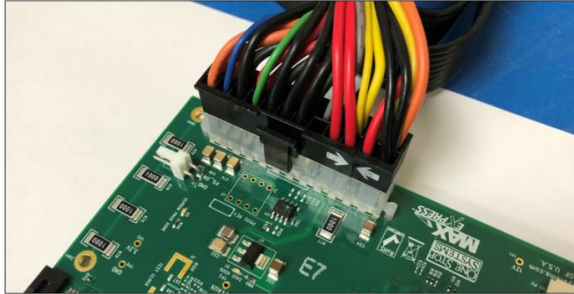
x4 Host Card

x4 Target Card

3.6   Connect ATX Power Supply

 Note   If you are using an expansion chassis, the power supply is already part of the unit. You can skip this step.

If you are using an expansion backplane, plug-in the ATX power supply cable into the 24pin ATX power connector on the OSS board.

Connect power to the PSU and turn the switch to ON position.

3.7   Power ON the system

- Turn ON the main power of the host computer.
- Start the computer by pushing the power button.
- Upon powering ON the Host system, it will send a sideband signal to the Target card triggering the expansion system to turn ON.

 Note   If the expansion unit or the HIB card are not powering ON, check the link cable make sure it is firmly connected. The target and host card must be fully seated in the PCIe slot in order to work correctly.

4   Verify Hardware

An operational Host and Target cards will have the following LEDs illuminated.

1. Bracket LEDs : LINK Status
2. Board LEDs: Power, Card Edge Reset and Cable Reset

Bracket LEDs (Link Status)

Board LEDs (Power, Card Edge & Cable)
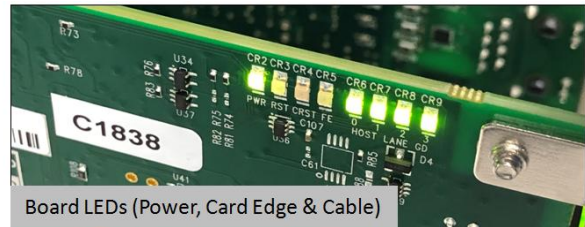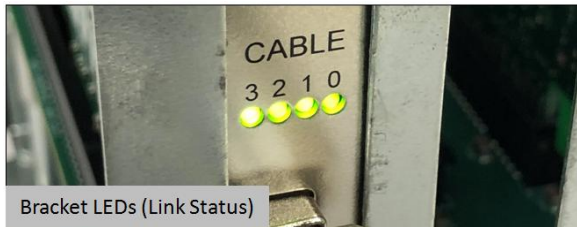
4.1   LED Definition

PWR – Board has power
CBL – Signal detect on cable*
EDGE – Signal detect on card edge*

*Signal detect does not mean it has a link, but rather it identifies there is a signal on the card edge. If the link does not appear to be stable, it could mean that there is a compliance pattern being generated by the PCIe device interfacing with this card.

4.2   LED Indicator Scenarios

When the "Force Power ON header / connector" is jumpered and ATX power supply is attached (power is available) into the expansion board or chassis, the following LEDs on boards and bracket are illuminated. In this setup, the host is not powered UP or the host is not connected to the target.
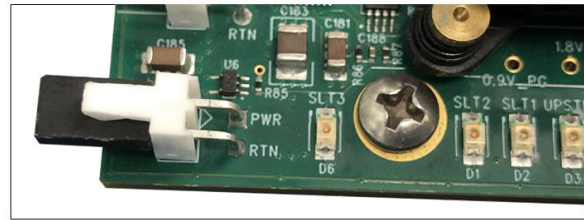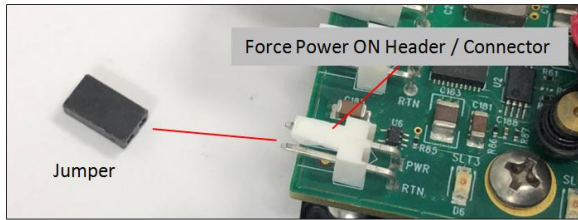
Bracket LED: 1 is lit as solid green

Board LEDs:

- PWR= Solid Green
- RST = Solid Red
- CRST = Solid Red
- 0 and 1 = Solid Green


Bracket LED

Board LEDs

The photos below is an example of the "Force Power ON Header / Connector" with jumper installed. It forces the ATX power supply to turn ON the board.

When Host computer is immediately powered UP (while the Target card is installed and power supply is connected to the board), it will initialize and turn ON the target card and the expansion unit instantly. The following LEDs will illuminate on the Target and Host cards.

Bracket LEDs (Link Status)

Board LEDs (Power, Card Edge & Cable)
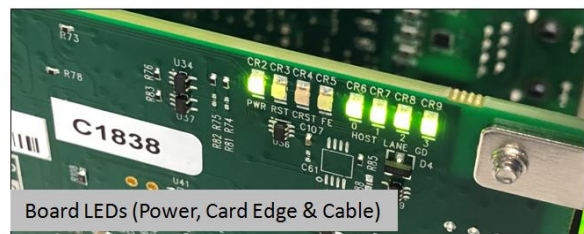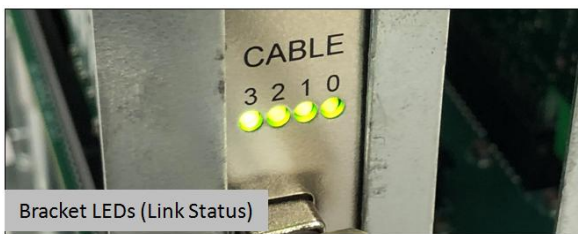
When Host computer is shutdown, all the LEDs on the Host cards are instantly turns OFF.   The bracket LED (Link Status LED) is OFF and the RST and CRST LEDs comes ON as solid RED, see photos below.

Board LEDs (Host Card)

Board LEDs (Target Card)
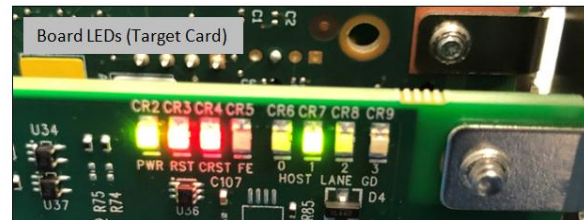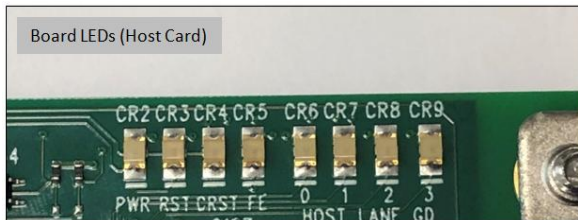
5   OSS-PCIe-HIB2-x4-P and HIB25-x4-H

The OSS-PCIe-HIB2-x4-P (as Host card) and OSS-PCIe-HIB25-x4-H (as Host card) are not compatible with the OSS-PCIe-HIB35x4 (Target card).

Due to hardware incompatibility both cards will not link up when be paired with OSS-PCIe-HIB35x4 (Target card)
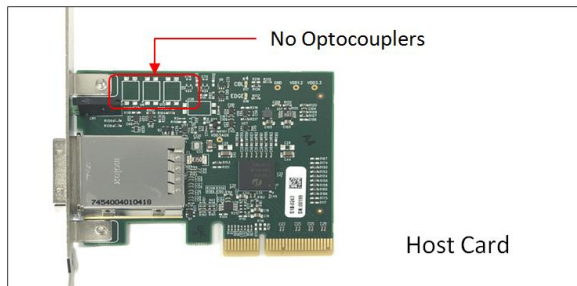
- The OSS-PCIe-HIB2-x4-P is a passive card, no re-driver Pericom chip on the board.

See photo of OSS-PCIe-HIB2-x4-P card below.

- The OSS-PCIe-HIB25-x4-H: with re-driver Pericom chip on the board.

See photo of OSS-PCIe-HIB25-x4-H card below.

6   Software Installation

No software or driver is required for the Host Adapter card.

7   How to Get More Help

You can visit the Technical Support FAQ pages on the Internet at https://www.onestopsystems.com/support

7.1   Contacting Technical Support

Our support department can be reached by phone at 1 (760) 745-9883. Support is available Monday through Friday, 8:00 AM to 5:00 PM PT. When contacting Technical Support make sure to include the following information:

1. Exact and correct serial #
2. Service Ticket or Case # (if you already submitted an online request)
3. Computer Type & Model: Operating System
4. Make & Model of PCI/PCIe cards: Application
5. Problem description

When submitting an online technical support request always provide a valid working e-mail address, phone number, shipping address and proper contact name. Check your e-mail for an automated response containing the case # and updates. You can also visit our web site at: https://www.onestopsystems.com/support 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.

Shipping or Transporting of Expansion Unit with PCI / PCIe cards
Any PCIe cards in **should be removed** (or not to be installed) prior to shipment to avoid or prevent possible damage. Note: Expansion board and PCIe / PCI cards that arrive damaged in shipment will not be covered under warranty.

7.2   Returning Merchandise

If factory service is required, a Service Representative will give you 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. 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:

> Attention:RMA # _____, One Stop Systems
> 2235 Enterprise Street, #110
> Escondido, CA 92029
> USA

It is not required, though highly recommended, that you keep the packaging from the original shipment of your product. However, if you return a product 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. We 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 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.

7.3   Online Support Resources

As a product user and customer, listed below are our Online Support Resources

https://www.onestopsystems.com/support provides Knowledgebase Articles such as troubleshooting methods, compatibility, FAQ, documentation, and product technical information.

If you need technical support, product assistance or have a technical inquiry we encourage you to submit it on-line using our Technical Support Form. If you need to send a unit for repair or diagnostic evaluation, fill out our RMA (Return Material Authorization) online request form.
- https://www.onestopsystems.com/support

2235 Enterprise Street, Suite#110, Escondido CA 92029

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