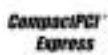




PCIe x1 Host Cable Adapter (HIB2)

OSS- PCIe-HIB2-x1



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Initial Set-Up

Unpacking Instructions

1. If the carton is damaged when you receive it, request that the carrier's agent be present when you unpack and inspect the equipment.
2. After unpacking, verify that all items listed in the packing list are present.
3. Inspect the equipment for shipping damage.
4. Save all packing material for storage or return shipment of the equipment.
5. For repairs or replacement of equipment damaged during shipment, contact One Stop Systems, Inc. to obtain a Return Materials Authorization (RMA) number and further shipping instructions.

Installation and Removal

1. Power down the host system.
2. Open the chassis according to your system documentation.
3. Let the power supply cool down, if necessary.
4. Remove the Host Cable Adapter from the protective bag, observing proper ESD safety procedures.

Installing the Host Cable Adapter:

1. Insert the Host Cable Adapter into a PCIe x1, x4, x8 or x16¹ add-in card slot. Make sure that the card is well seated and tighten the screw.
2. Attach the cable and tighten the two jackscrews.

PCI Express x1 Cable



3. Attach the other end of the cable to the upstream port connector of the ELB in the expansion enclosure. To link to a second expansion enclosure, connect a second cable from the downstream port connector on the ELB of the first expansion enclosure to the upstream port connector on the ELB of the second enclosure.

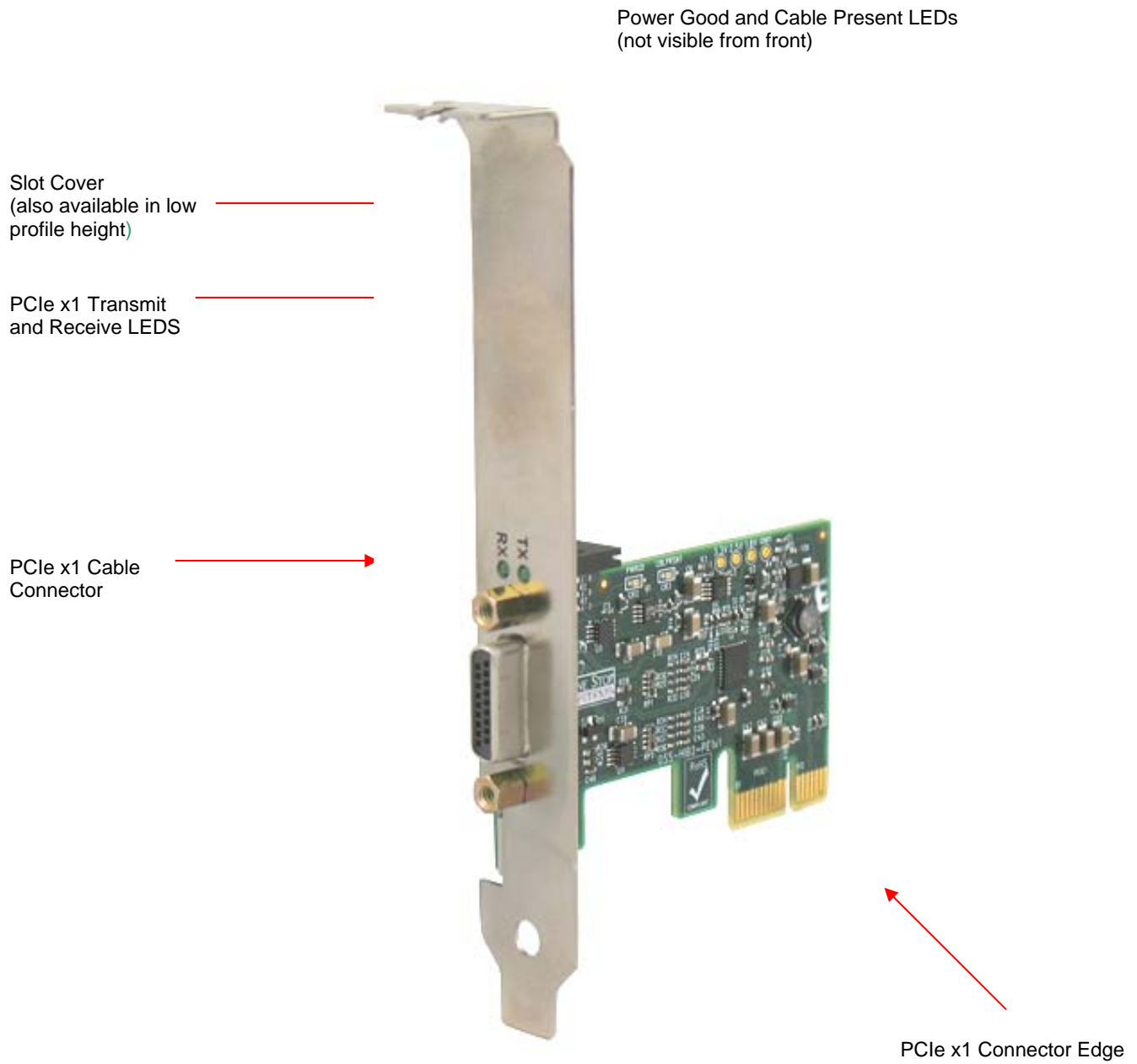
Removing the Host Cable Adapter:

1. Loosen the jackscrews and remove the cable.
2. Loosen and remove the screw before removing the Host Cable Adapter from the card slot.

¹ “Up-plugging” the Target Cable Adapter into a x4, x8 or x16 slot is allowed, but the motherboard manufacture may limit the bandwidth to x1 (2.5Gbps) speeds. If you need to do this, check with the motherboard manufacturer to see how up-plugging is handled on their motherboards. A PCIe x4 board will not physically fit in a x1 slot.

Description

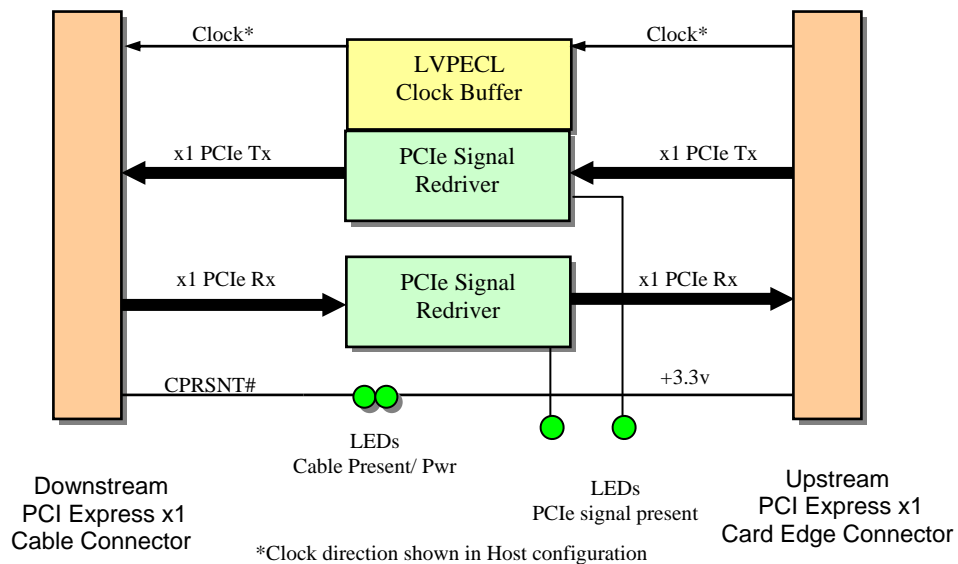
The Host Cable Adapter (Part # OSS-PCle-HIB2-x1) allows communication between a processor and an I/O port.



Specifications

Electrical/Mechanical Specifications	
Form Factor:	x1 PCIe add-in card
Dimensions (H x L):	1.94 x 2.57 inches (49 x 65mm)
Front Panel Connectors:	One PCIe x1 cable connector
Front Panel Indicators:	PCI Express x1 Tx (Transmit) and Rx (Receive)
Power Consumption (designed to meet the following conditions)	
	3.75W typical, 3.3@1.3A
Operating Environment (designed to meet the following conditions)	
Temperature Range:	0° to 70°C (32° to 122°F)
Relative Humidity:	10 to 90% non-condensing
Shock:	30g acceleration peak (11ms pulse)
Vibration:	5-17 Hz 0.5" double amplitude displacement; 7-2000Hz, 1.5g acceleration.
Redriver	
Pericom PI2EQX4401	
Agency Compliance Designed to meet, but not tested	
	UL60950, FCC Class B, CE safety and emissions

Block Diagram



Connectors

PCIe x1 Card Edge Connector

The pins are numbered as shown with side A on the top of the centerline on the solder side of the board and side B on the bottom of the centerline on the component side of the board.

The PCIe interface pins PETpx, PETnx, PERpx, and PERnx are named with the following convention: “PE” stands for PCIe high speed Express, “T” for Transmitter, “R” for Receiver, “p” for positive (+), and “n” for negative (-).

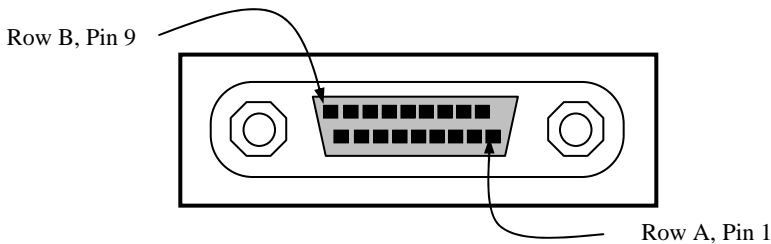
Note that adjacent differential pairs are separated by two ground pins to manage the connector crosstalk.

Pin-out for the PCIe x1 Card Edge Connector on the Host Cable Adapter

Pin #	Side B		Side A	
	Name	Description	Name	Description
1	N/C	N/C	PRST1#	Hot-Plug presence detect
2	N/C	N/C	N/C	N/C
3	N/C	N/C	N/C	N/C
4	GND	Ground	GND	Ground
5	NC	N/C	N/C	Not connected
6	N/C	N/C	JTAG3	TDI (Test Data Input)
7	GND	Ground	JTAG4	TDO (Test Data Output)
8	+3.3V	3.3 V power	N/C	Not connected
9	N/C	Not connected	N/C	Not connected
10	3.3Vaux	3.3 V auxiliary power	+3.3V	3.3 V power
11	N/C	N/C	PERST#	Fundamental reset
Mechanical key				
12	RSVD	Reserved	GND	Ground
13	GND	Ground	REFCLK+	Reference clock (differential pair)
14	PETp0	Transmitter differential pair, Lane 0	REFCLK	
15	PETn0		GND	Ground
16	GND	Ground	PERp0	Receiver differential pair, Lane 0
17	PRST2#	Hot-Plug presence detect	PERn0	
18	GND	Ground	GND	Ground

PCE Express x1 Connector

The PCI Express x1 connector is an 18 position pin and socket D connector with metallic shell as defined in the PCI Express External Cabling Rev 1.0 Molex part number 74150-0001, or equivalent.



Pin #	Row A Signal Name	Row B Signal Name	Pin #
1	PER0+	GND	1
2	PER0-	N/C	2
3	N/C	CWAKE#	3
4	GND	CPRSNT#	4
5	CREFCLK-	GND	5
6	CREFCLK+	3.3V	6
7	GND	CPWRON	7
8	CPRSET#	PET0-	8
9	GND	PET0+	9