SUPER

Super Micro Computer, Inc.

2U Twin GPU Kit Installation Instruction

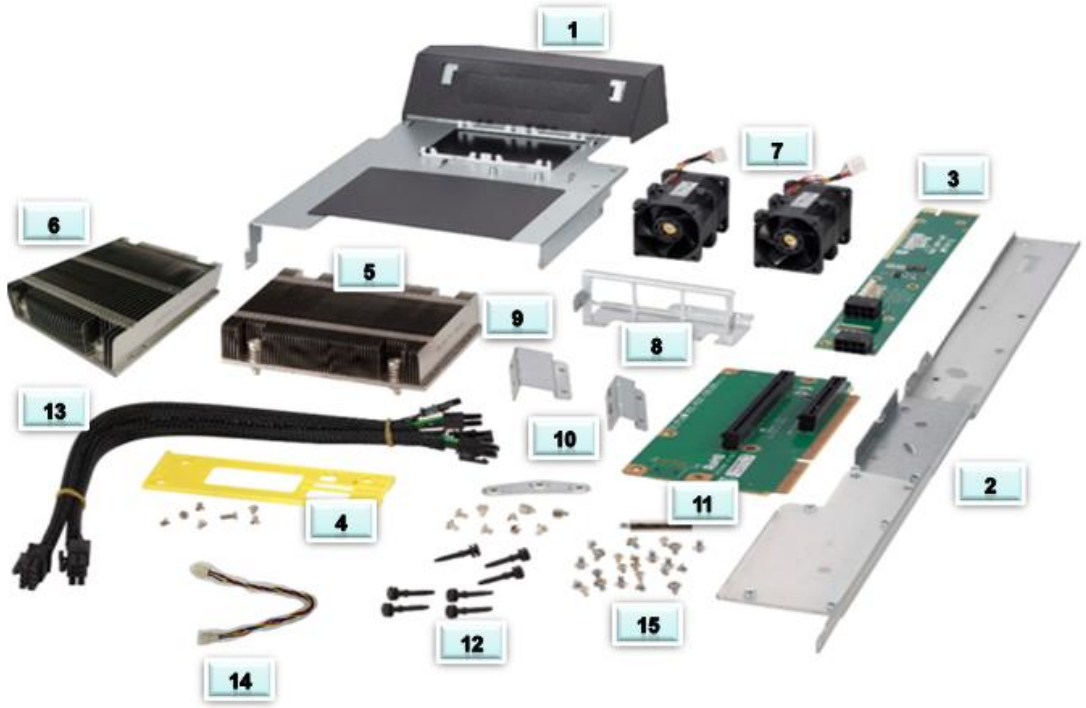
Rev 1.04

Preface

The Guide is written for professional system integrators and PC technicians. It provides information for installation and use of the SuperServer x9 2U Twin series including the 6027TR-DTRF, 6027TR-DTQRF, 6027TR-DTFRF, which support Intel Xeon Phi, Nvidia K10, K20, K20X, M2090 and AMD Woodier GPUs.

GPU Kit Features

- **2U Twin GPU Kit – P/N:MCP-420-21709-0N**



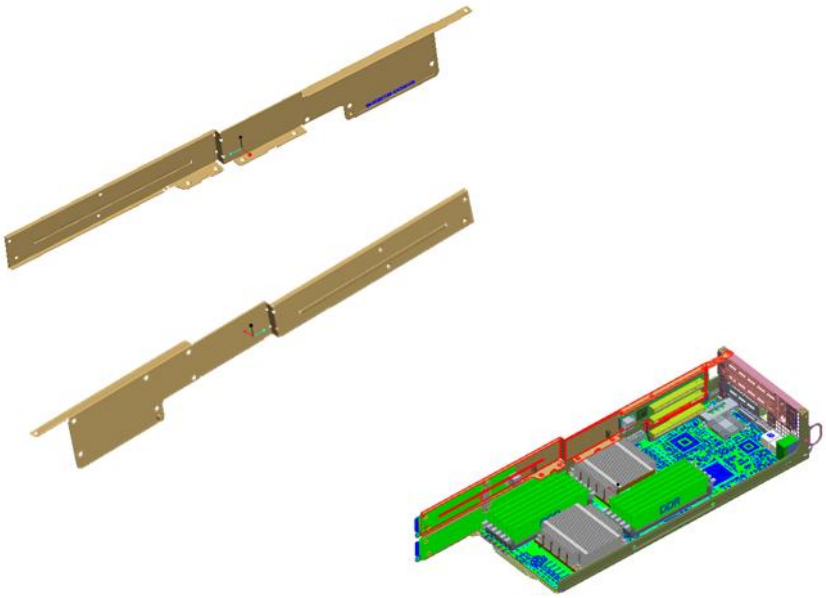
Parts of GPU Kit:

Number	Part Descritipn	Quantity
1	MB tray support bracket	1
2	SC827HD riser card and power adaptor card bracket	1
3	Power adaptor card (BPN-ADP-PWR Rev 1.02)	1
4	SC827HD adaptor card support plate	1
5	CPU heatsink (SNK-P0047PW,for CPU 1)	1
6	CPU heatsink (SNK-P0047PS, for CPU 2)	1
7	Cooling Fan (FAN-0117L4, 40 x 40 x 56 mm Counter-rotating 17K)	2
8	GPU mounting bracket for Intel Xeon Phi GPU	1
9	GPU mounting bracket for Nvidia K10 or K20/K20X GPU	1
10	GPU mounting bracket for AMD Woodier GPU	1
11	Riser Card (RSC-R2UT-E8E16R-O-P, PCIe 3.0 by 16 x1 and PCIe 3.0 by 8 x1)	1
12	Rubber pins for fans	8
13	Power cable (CBL-0333L 6+2 pin to 8 pin GPU power extension from MB, 30cm. 18/20AWG)	2
14	Fan extension cable (CBL-0296L 4 pin to 4 pin fan extension cord, for PWM fan. 23cm. 24AWG)	1
15	Others (sheet metal, screws, and hex standoffs)	-

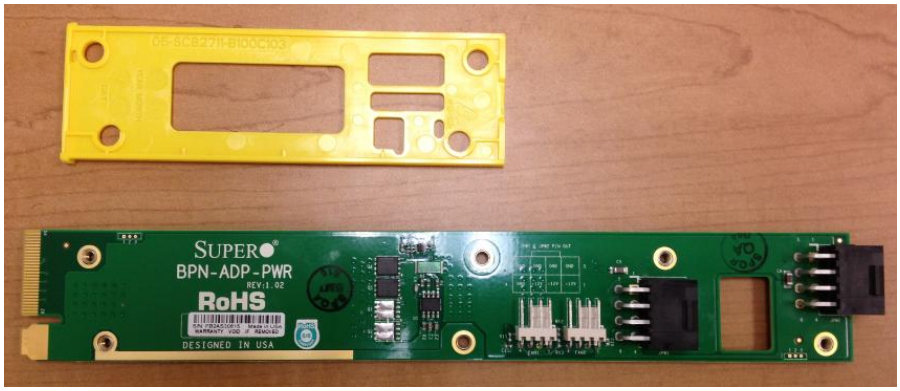
Installation Procedure

Installing the power adaptor card to the riser card & power adaptor bracket:

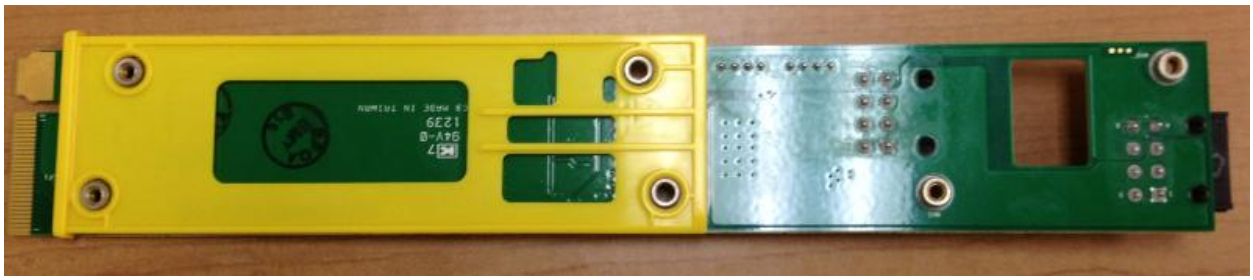
1. Locate the SC827HD riser card and the power adaptor card bracket.



2. Place the adaptor card support plate alongside the power adaptor card so that the holes match up.



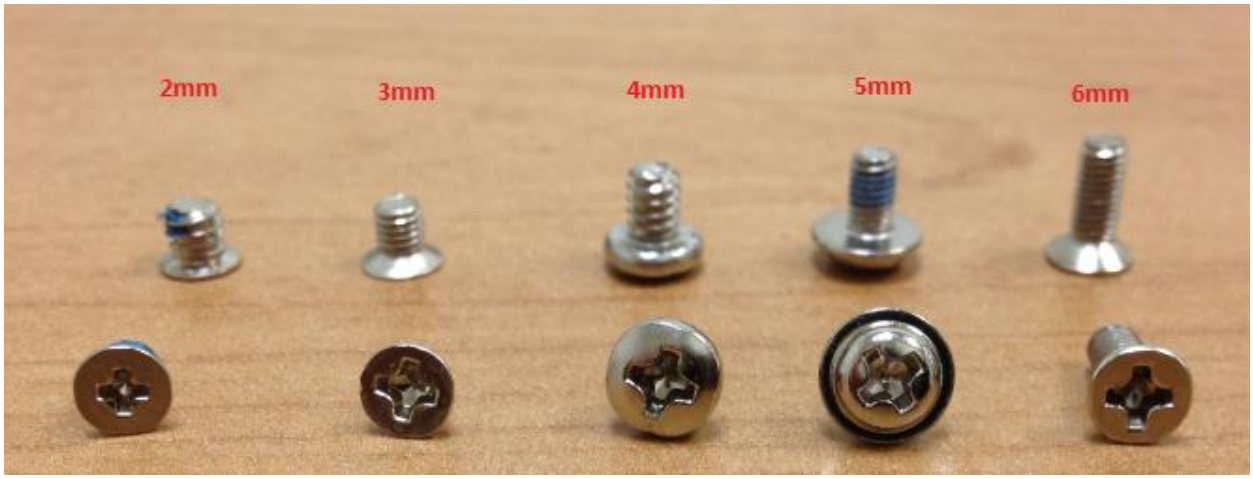
3. Place the plate on the back of the power adaptor card.



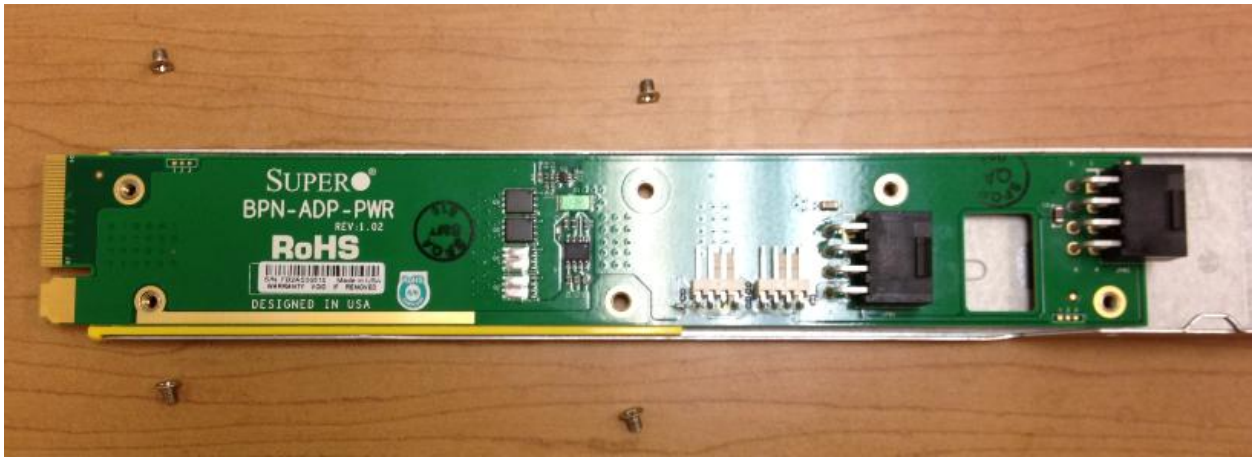
4. While keeping them both together, turn them over.

5. Place the power adaptor card into the SC827HD riser card/power adaptor card bracket.

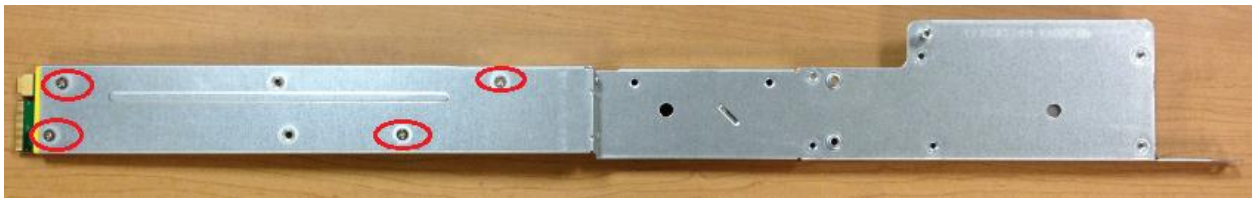
6. Screw types:



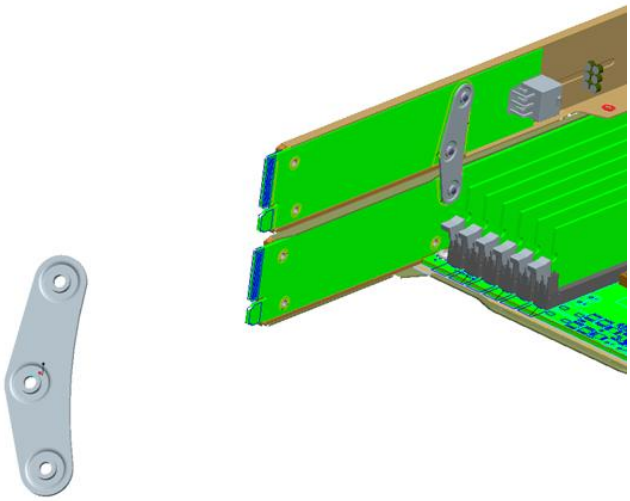
7.Locate four of the(3mm) screws.



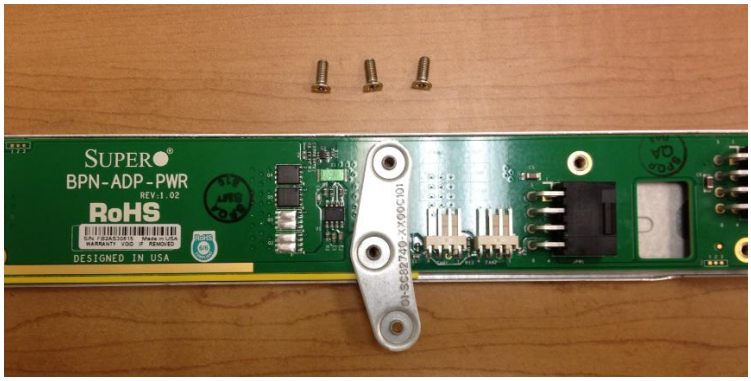
8. Secure the power adaptor card and plate to the bracket with the four screws shown as below.



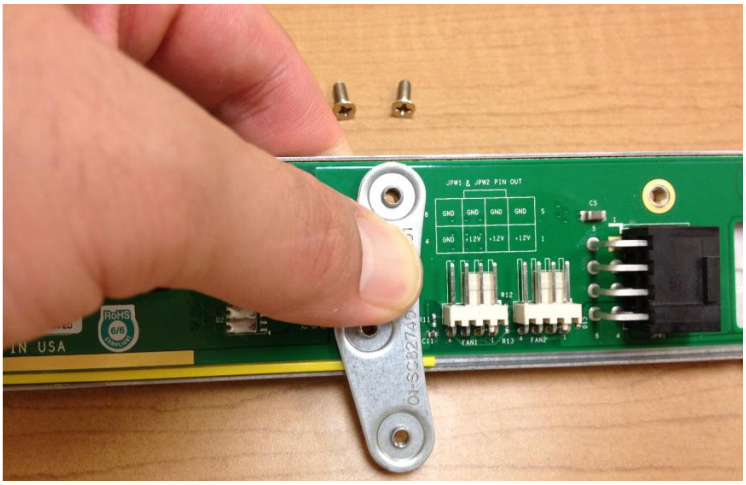
Securing the power adaptor to the bracket



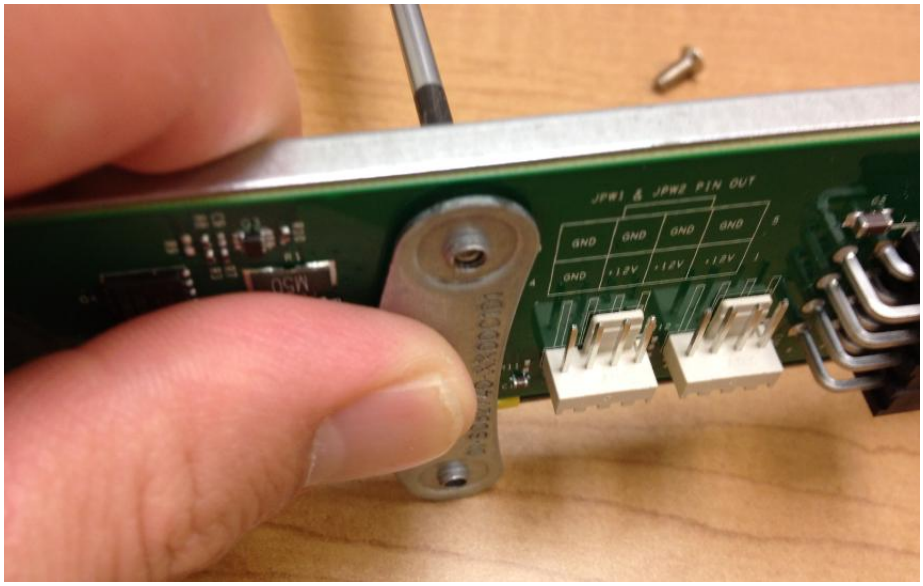
1. Follow the procedure below to attach the power adaptor card to the SATA backplane using three (6mm screws).



2. Align the holes on the bracket with those on the power adaptor card.



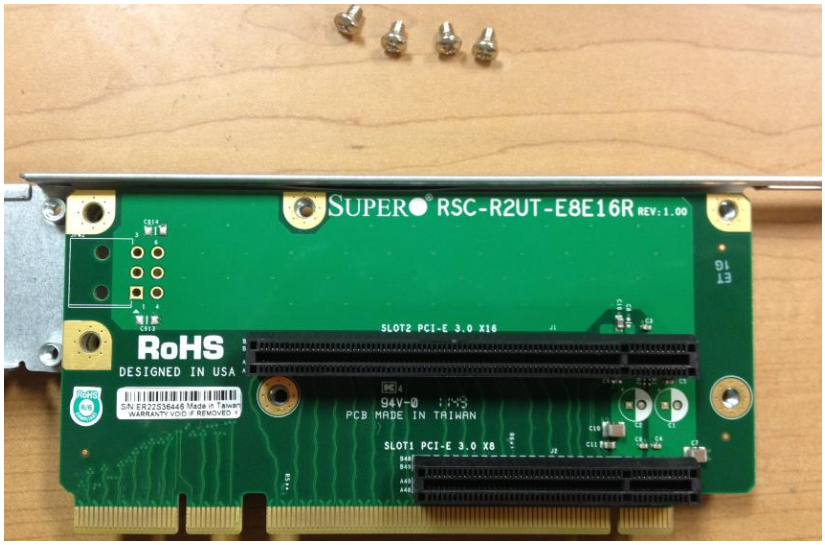
3. Hold the bracket and the sheet metal and, fasten them together with the screws.



4. Secure the sheet metal with two screws.

Installing the riser card to the support bracket:

1. Locate the “RSC-R2UT-E8E16R” riser card bracket and four 4mm screws.



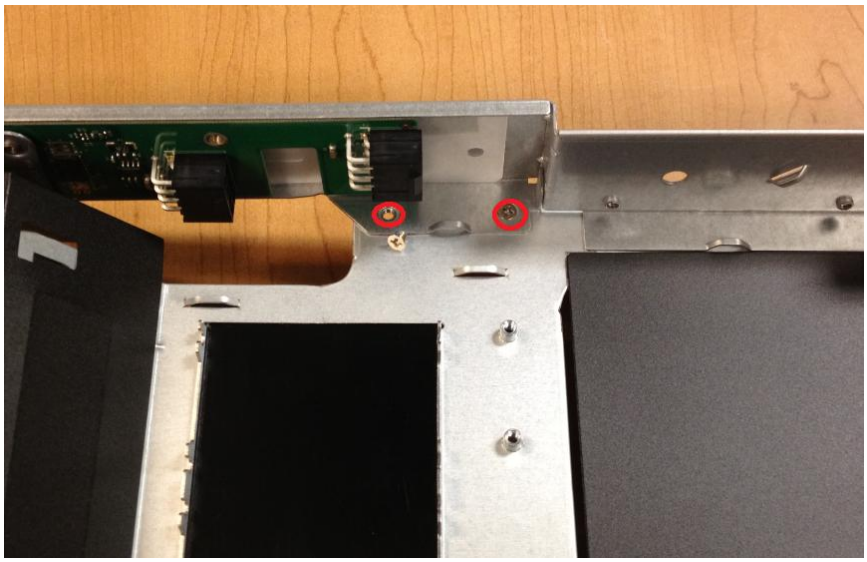
2. Align the holes and secure both pieces together with the four (4mm screws).

3. Confirm that six screws are now attached to the support bracket.

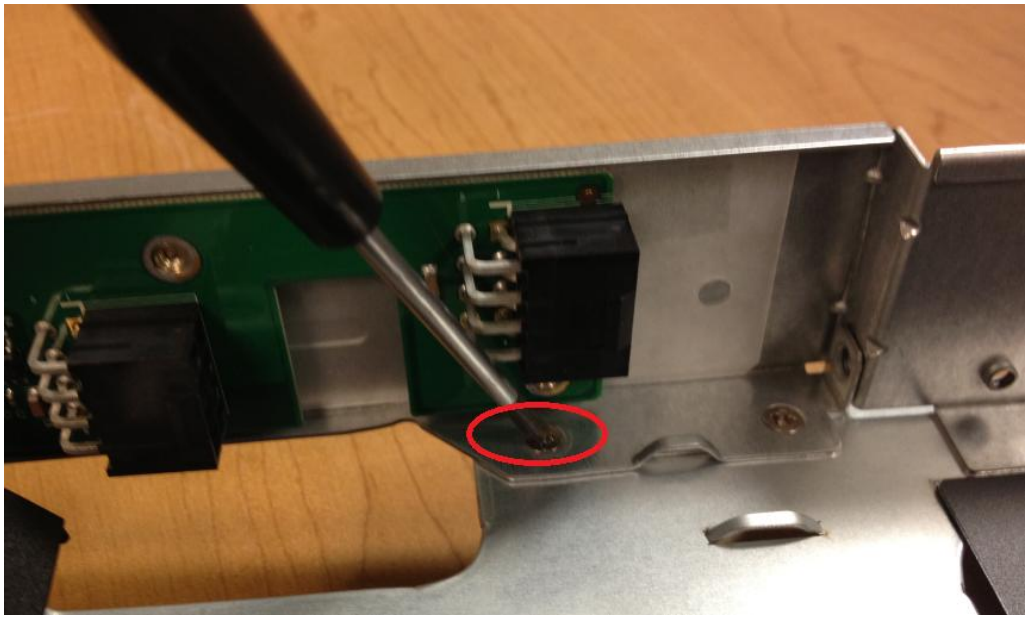
Attaching the Motherboard tray support bracket to the power adaptor & riser card support bracket:

1. Locate the MB tray support bracket with the two screws in the box (2mm screws).

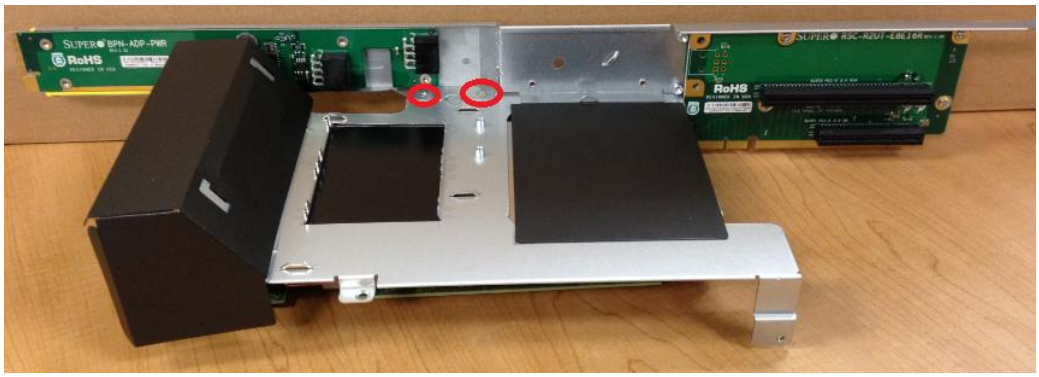
2. Secure the complete bracket of power adaptor and riser card bracket assembly to the MB tray support bracket with the two screws.



3. A thin phillips screwdriver is necessary to secure the screw in this position.



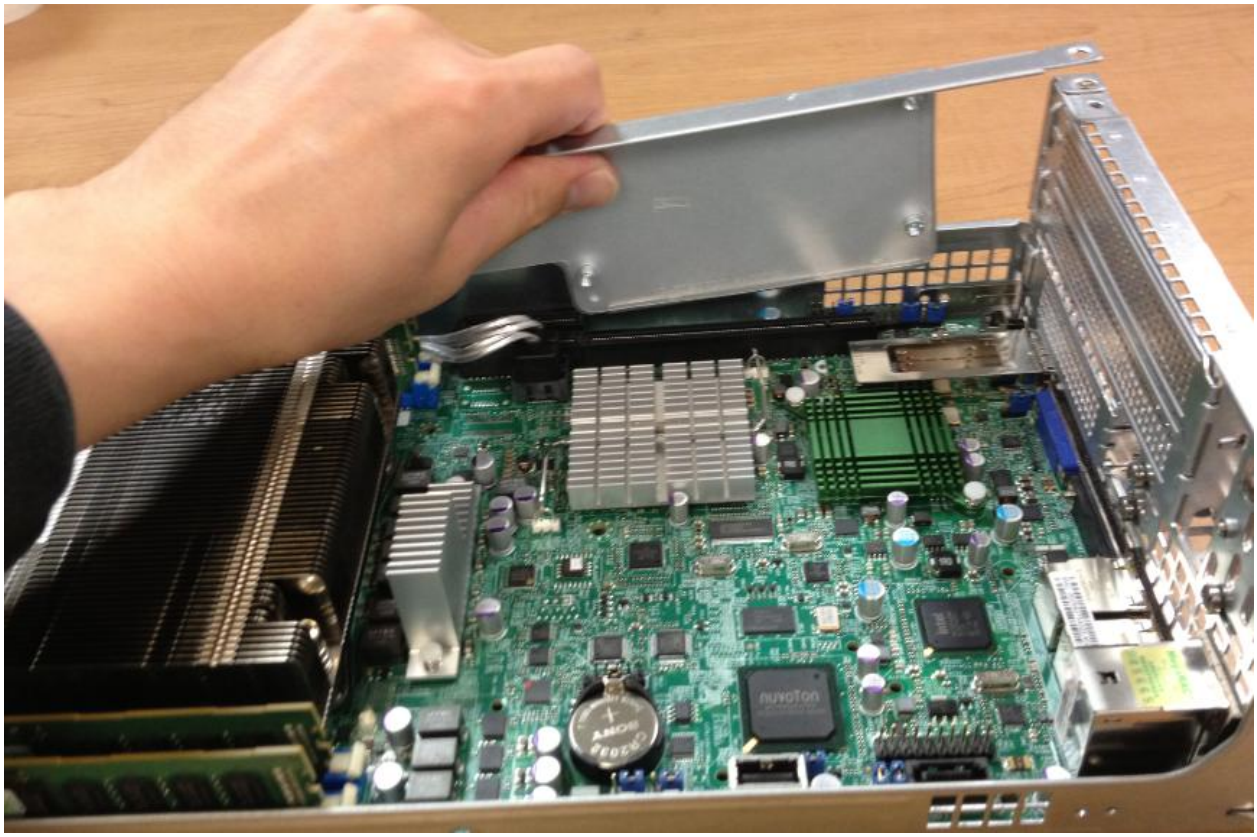
4. Secure the MB tray assembly and power adaptor card & riser card bracket firmly secured together.



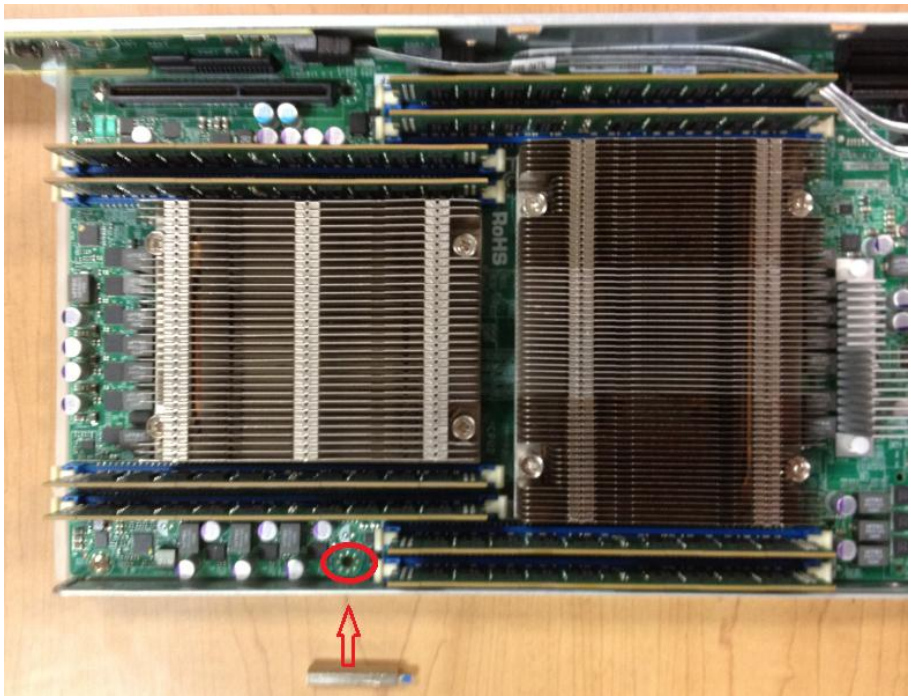
Replacing CPU heatsinks on your motherboard:

1. Remove the node from the 2U Twin system unit in which you want to install a GPU kit.
2. Replace heatsink P0047PW to (CPU1) and heatsink P0047PS to (CPU2) following the CPU heatsink installation procedures on the heatsink box.

3. Remove the original bracket from the node.

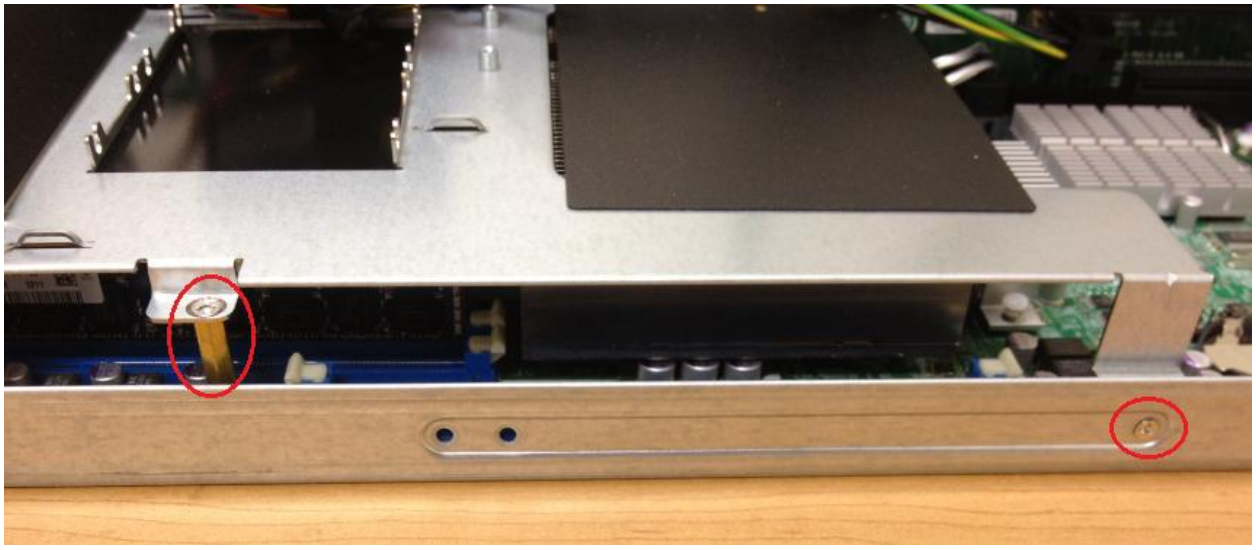


4. Tighten the hex standoff on the motherboard.

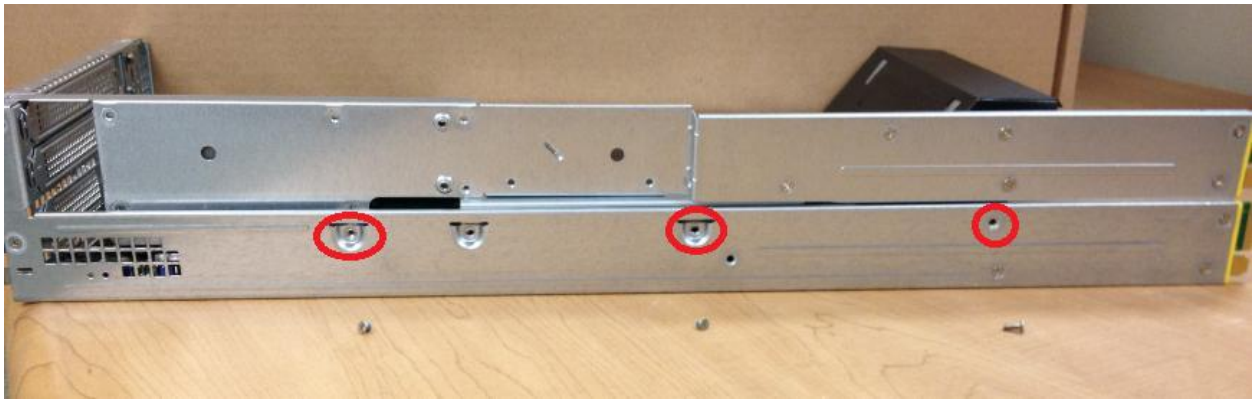


5. Insert the riser card into the PCIe x 16 slot on the motherboard.

6. Secure the motherboard tray support bracket with two 3mm screws.

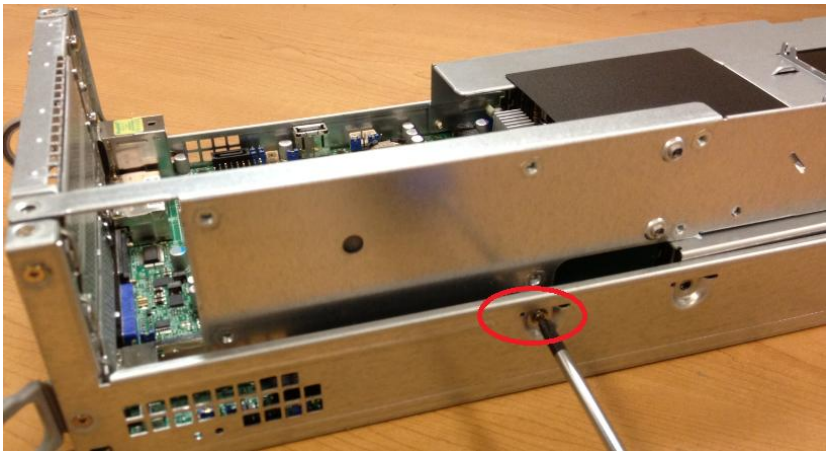


7. Turn it over to expose the back of the bracket.

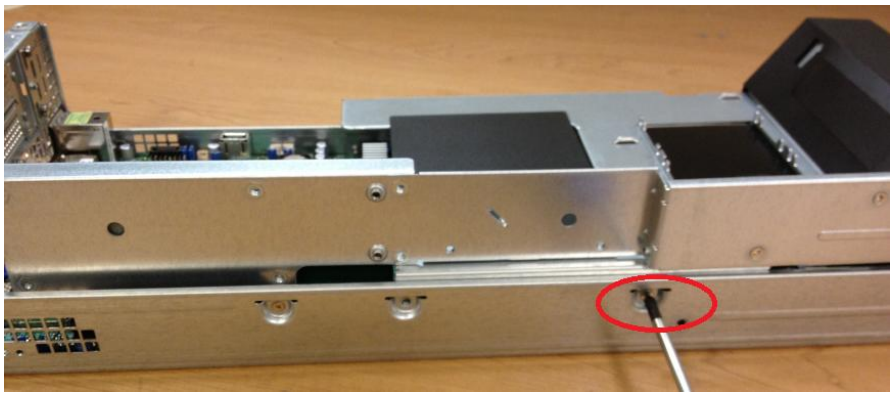


8. Secure the bracket with four screws (three 3mm screws and one 6mm screw).

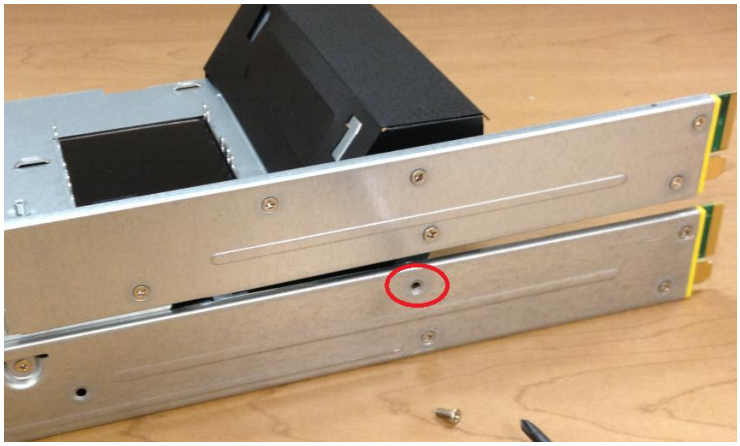
❶ Use 3mm screw.



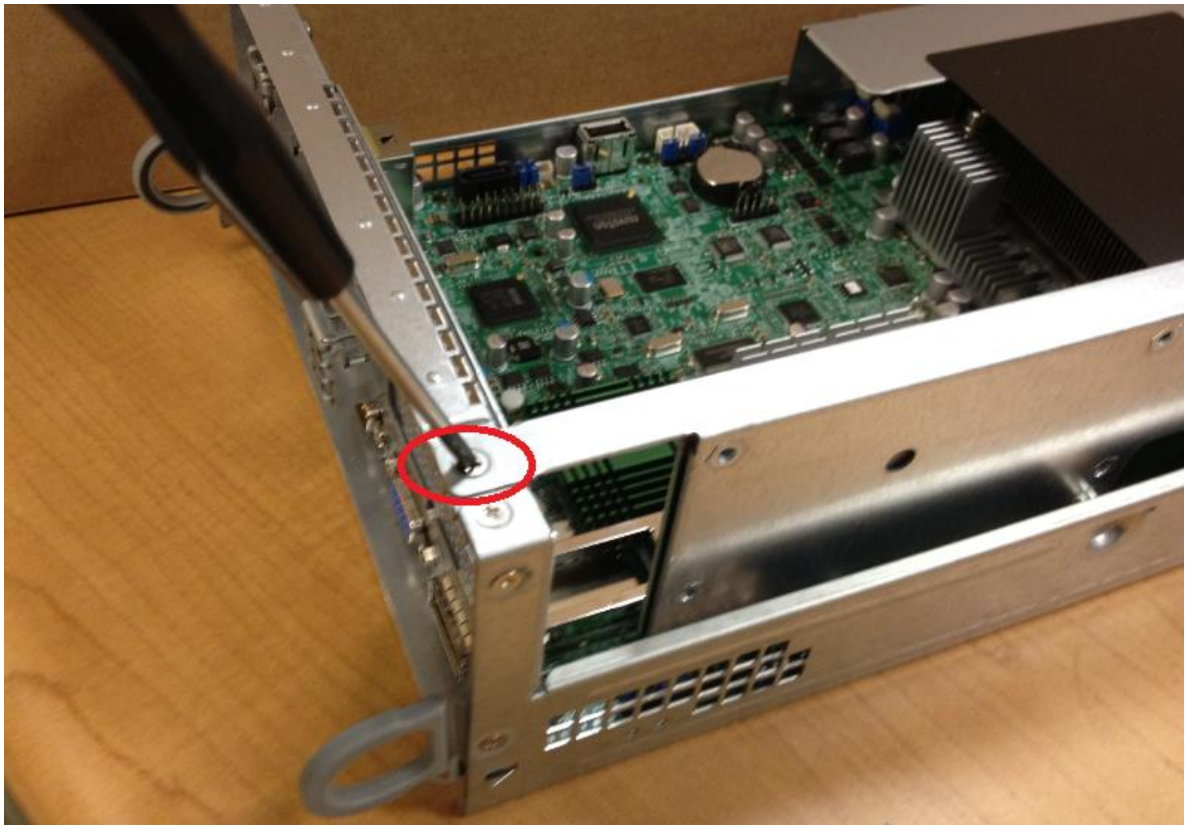
❷Use 3mm screw.



❸ Use 6mm screw.



❹ Use 3mm screw.

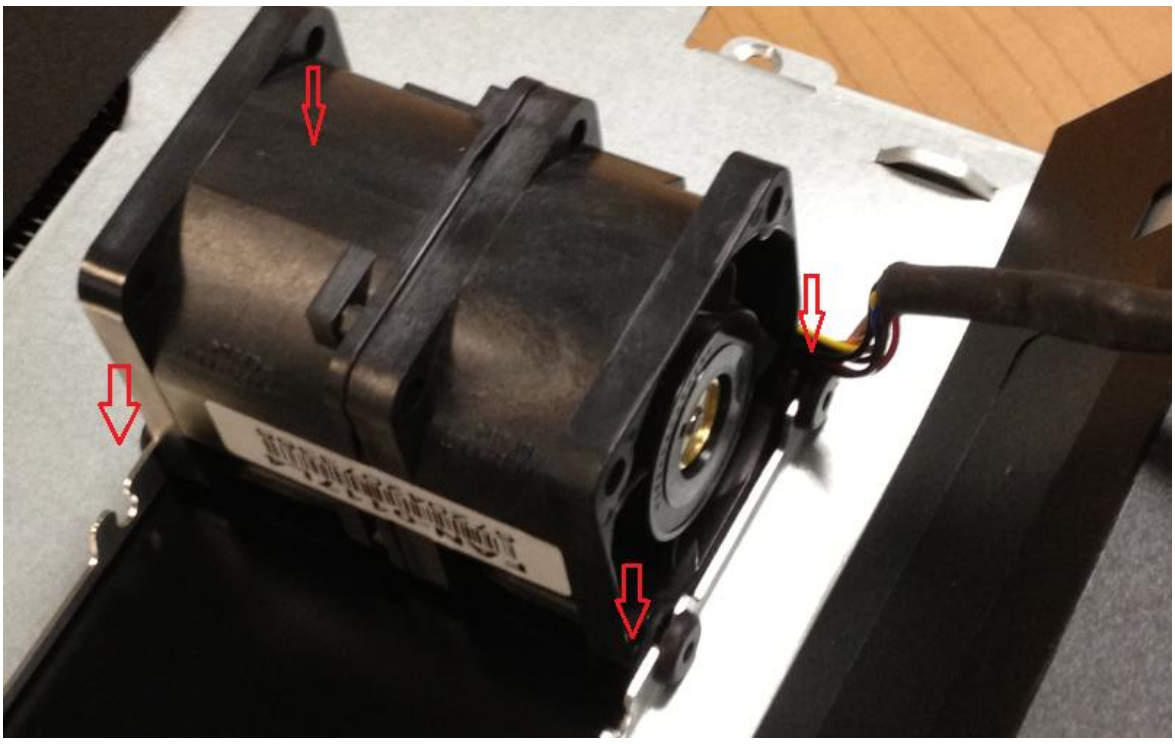


❺ Confirm four screws are secured on the bracket.

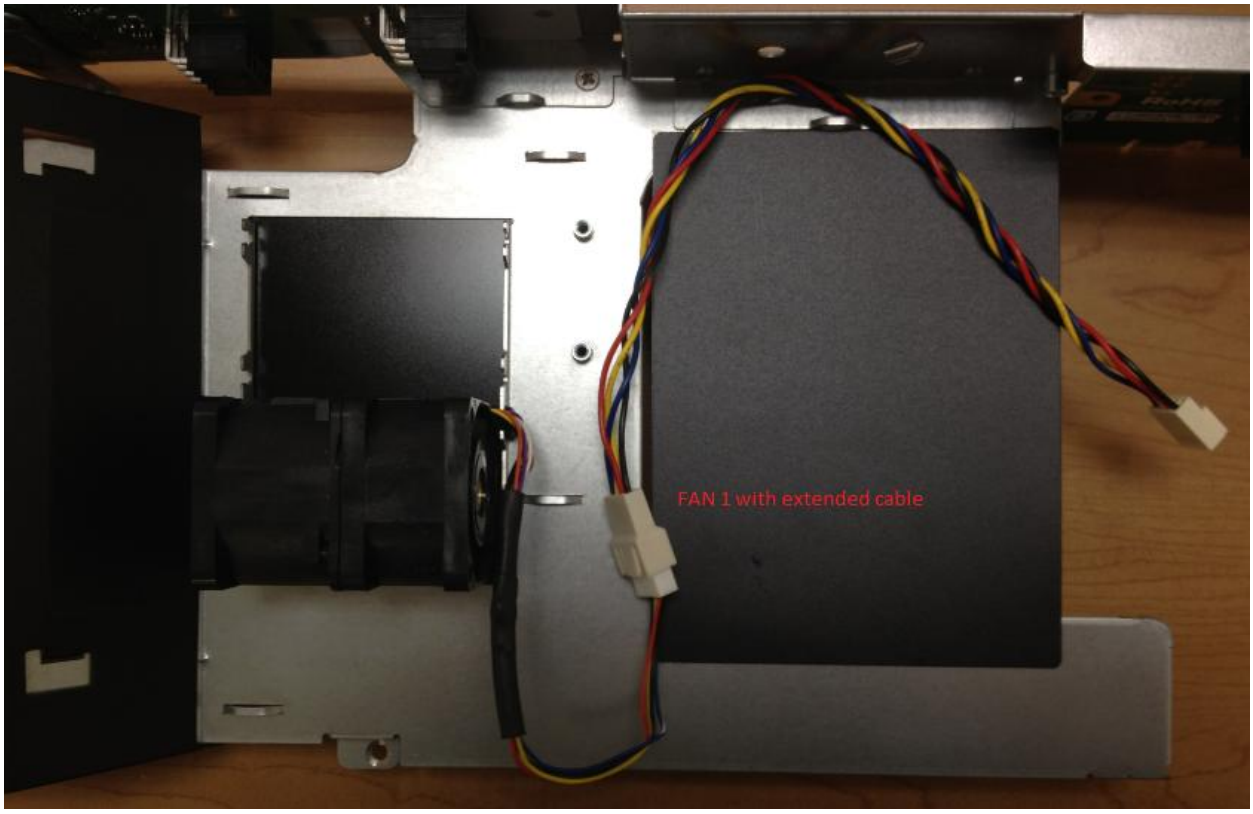
Installing cooling fans:

1. Replace the four plastic fan pins with rubber ones for both FAN 1 and FAN2.

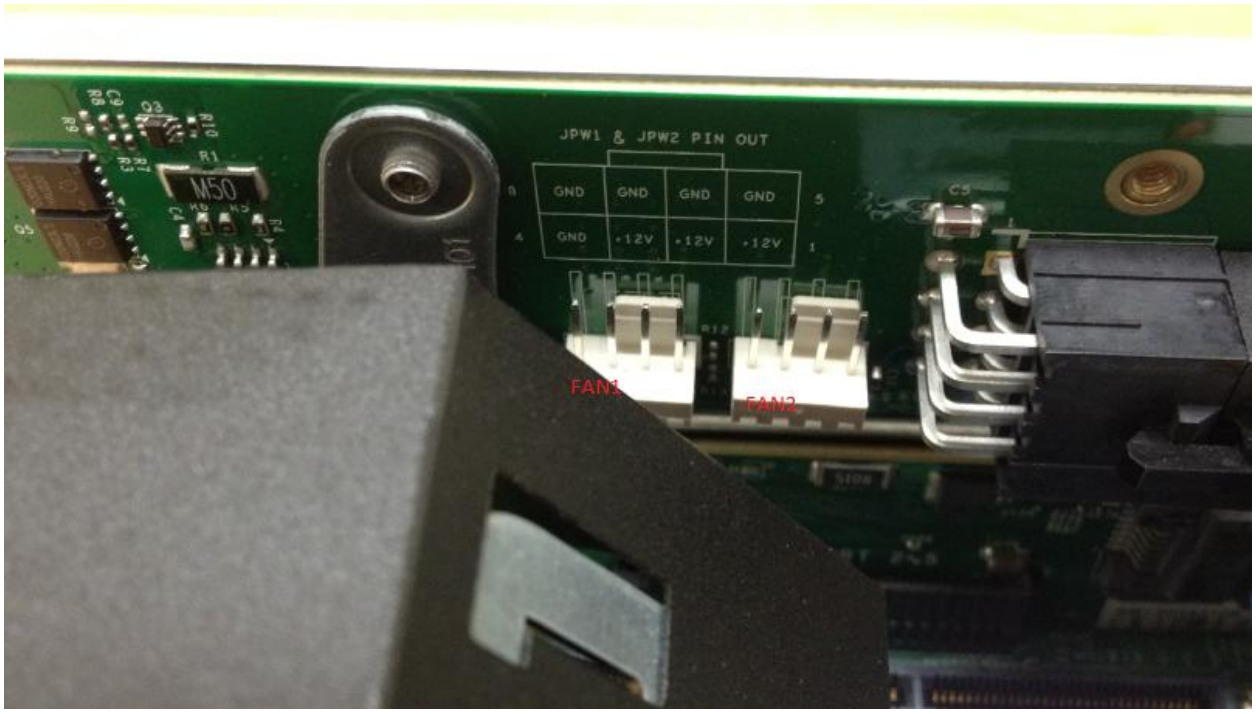
2. Insert the fan into the motherboard tray support bracket.



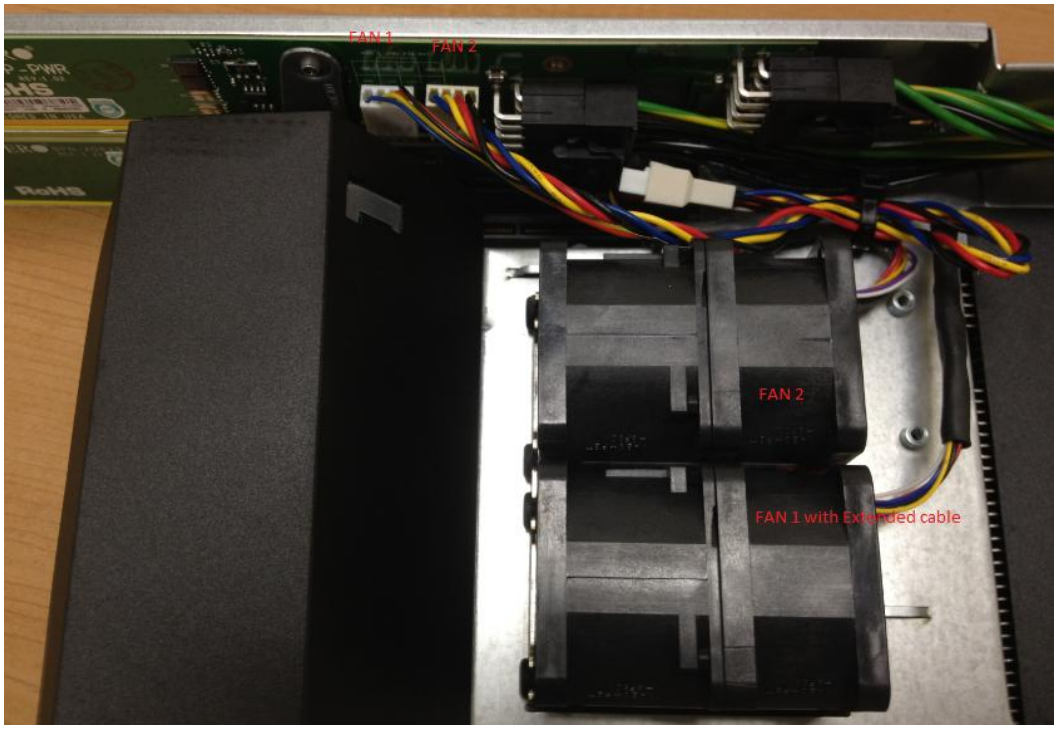
3. Connect a fan extention cable to Fan1.



4. Locate FAN1 and FAN2 connectors on the power adaptor card (above,Rev.1.02)

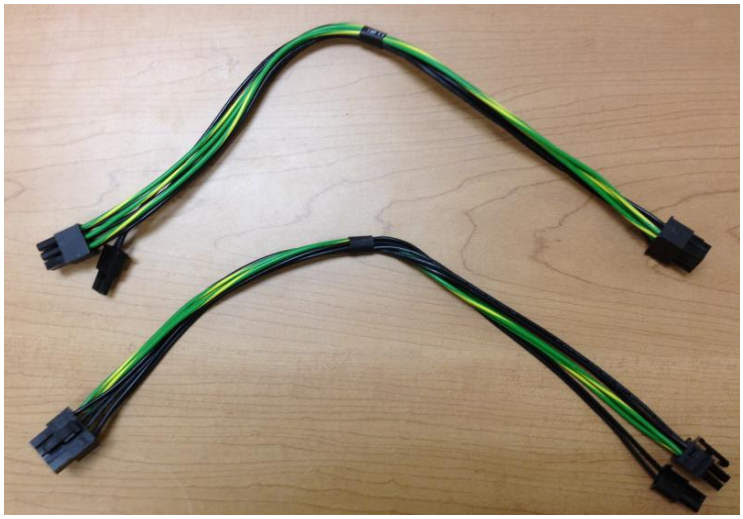


5. Connect FAN1 and FAN2 to the FAN1 and FAN2 connectors on the power adaptor card.

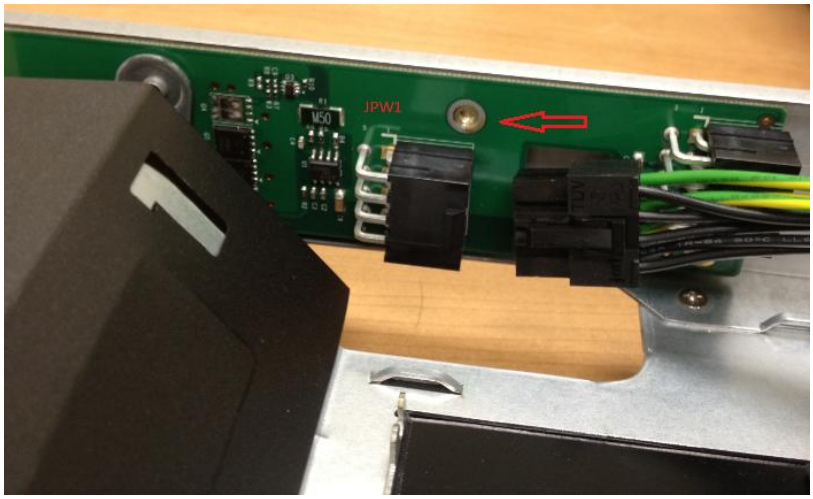


Connecting the GPU power cables:

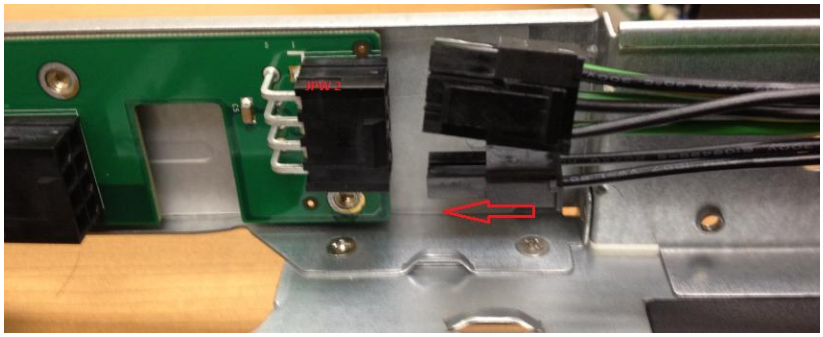
1. Locate the two power cables (6+2 pin to 8-pin GPU power cables) in the GPU Kit box.



2. Insert the 8-pin connector into JPW1.

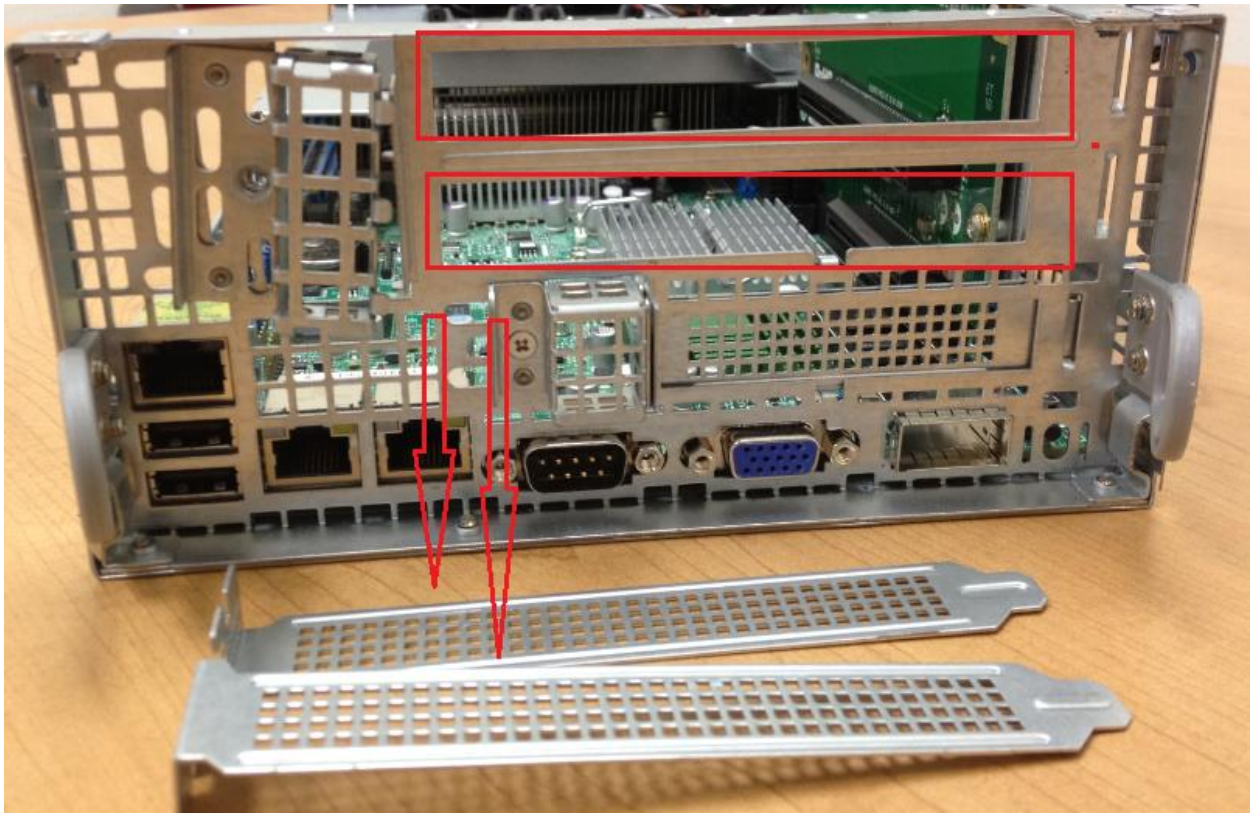


3. Insert the 2+6 pin connector into JPW2.

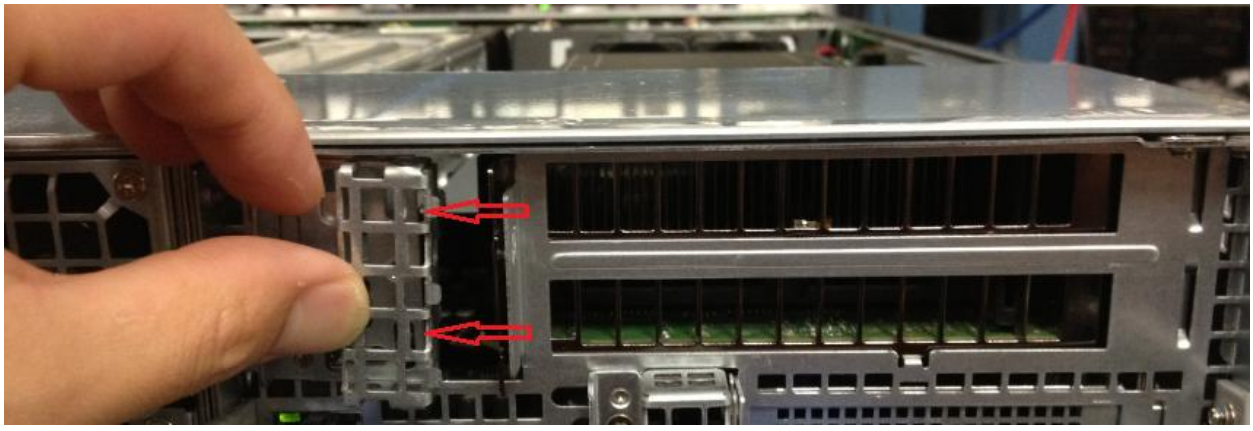


Installing a GPU:

1. Remove the two metal pieces from the bracket using the following procedure.

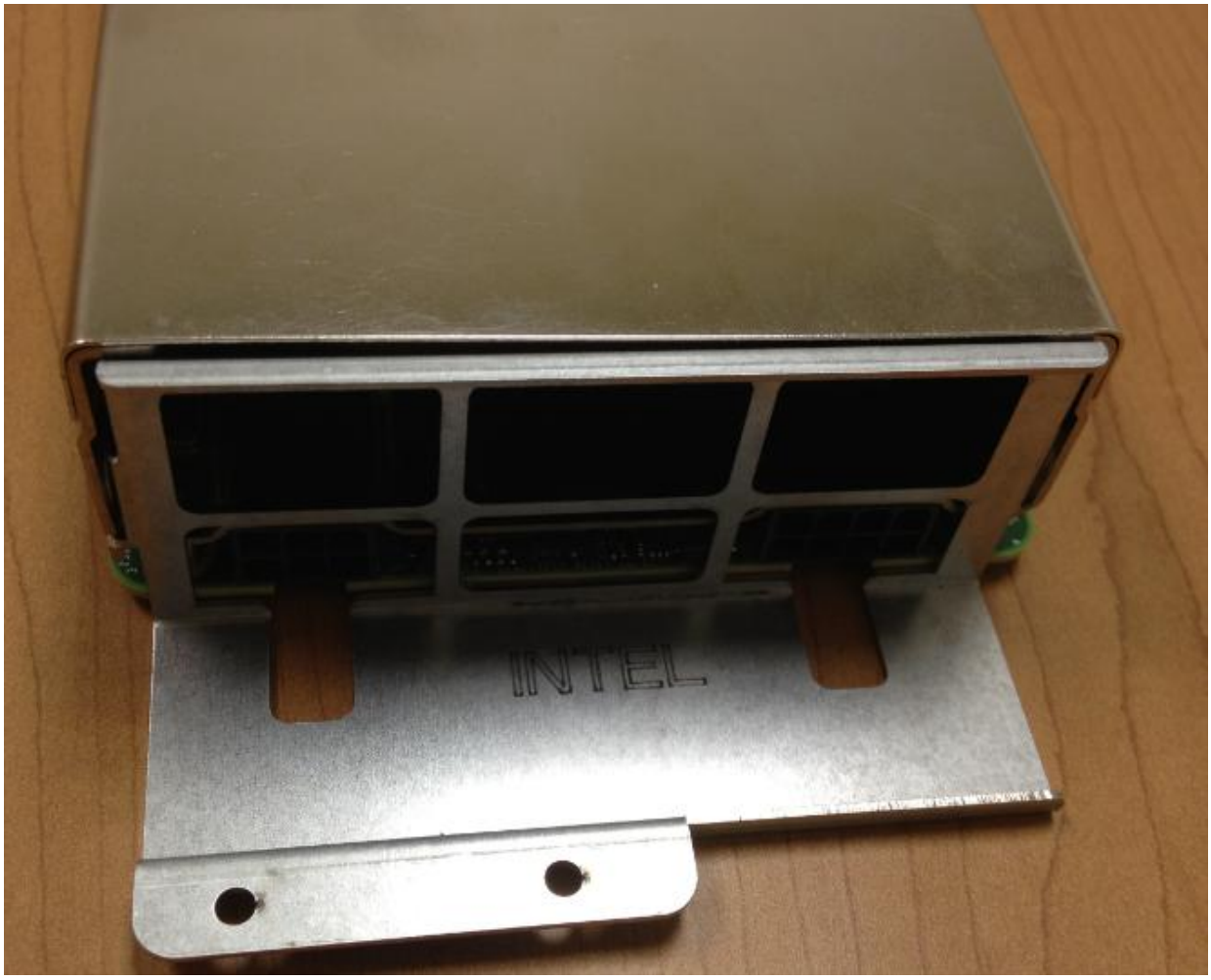


2. Loosen the screw and slide the piece from right to left.



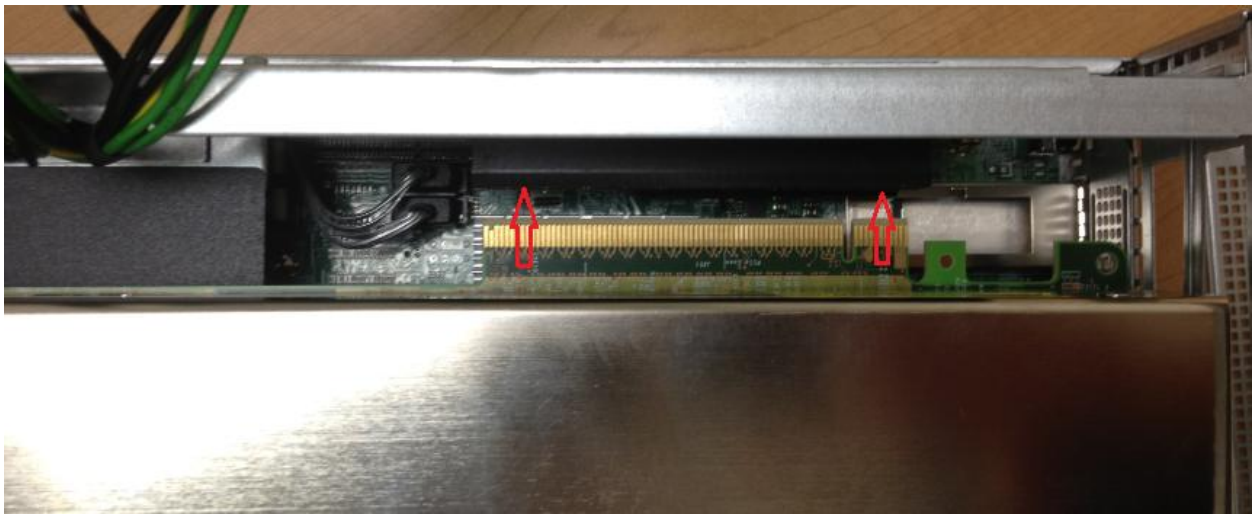
3. Secure the GPU mounting bracket to the GPU itself.

4. Nvidia and AMD GPUs can be installed in the same manner.
   If your GPU is an Intel Xeon Phi, please use an Intel GPU mounting bracket.

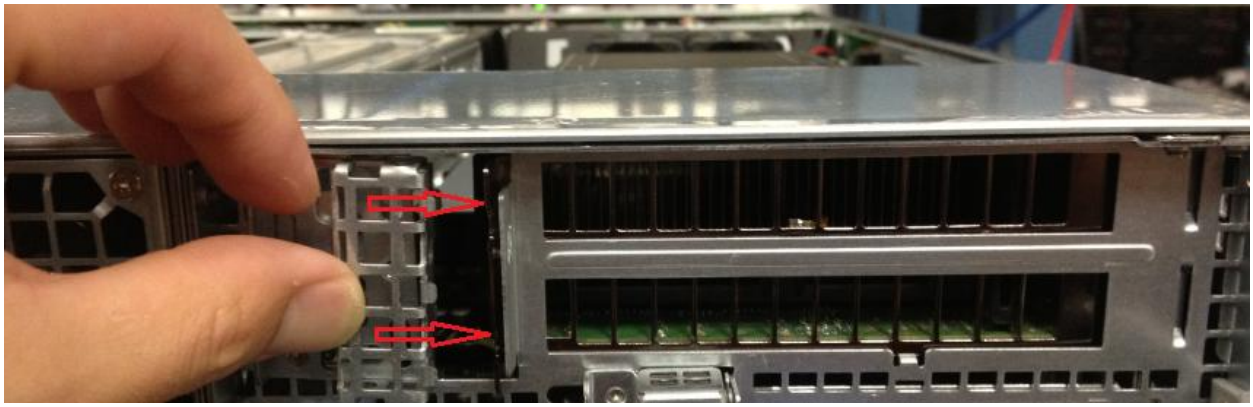


5. Slot 2 on the riser card is for inserting your GPU.

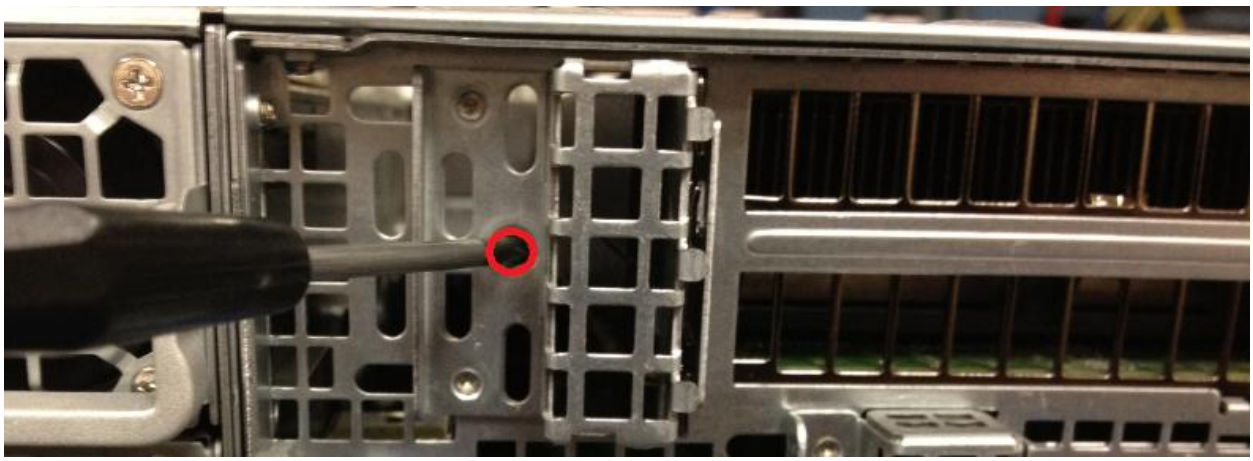
6. Insert the gold contacts on the GPU intoPCIe slot2 on the riser card.



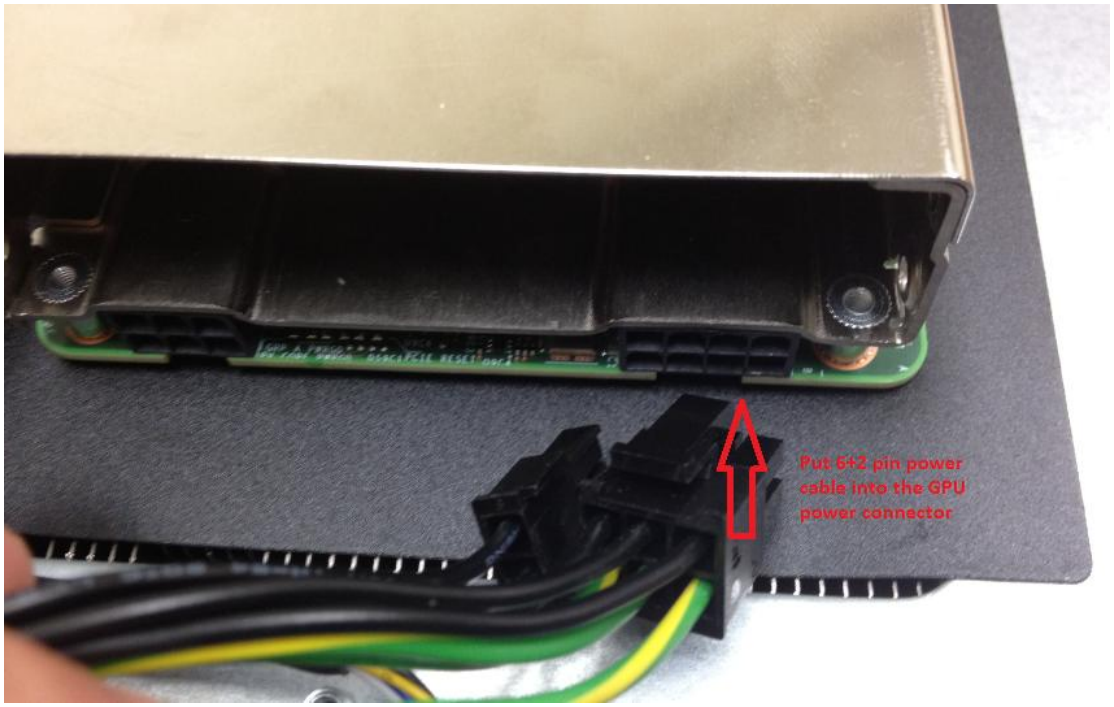
7. Slide the sheet metal piece from left to right after the GPU is installed.



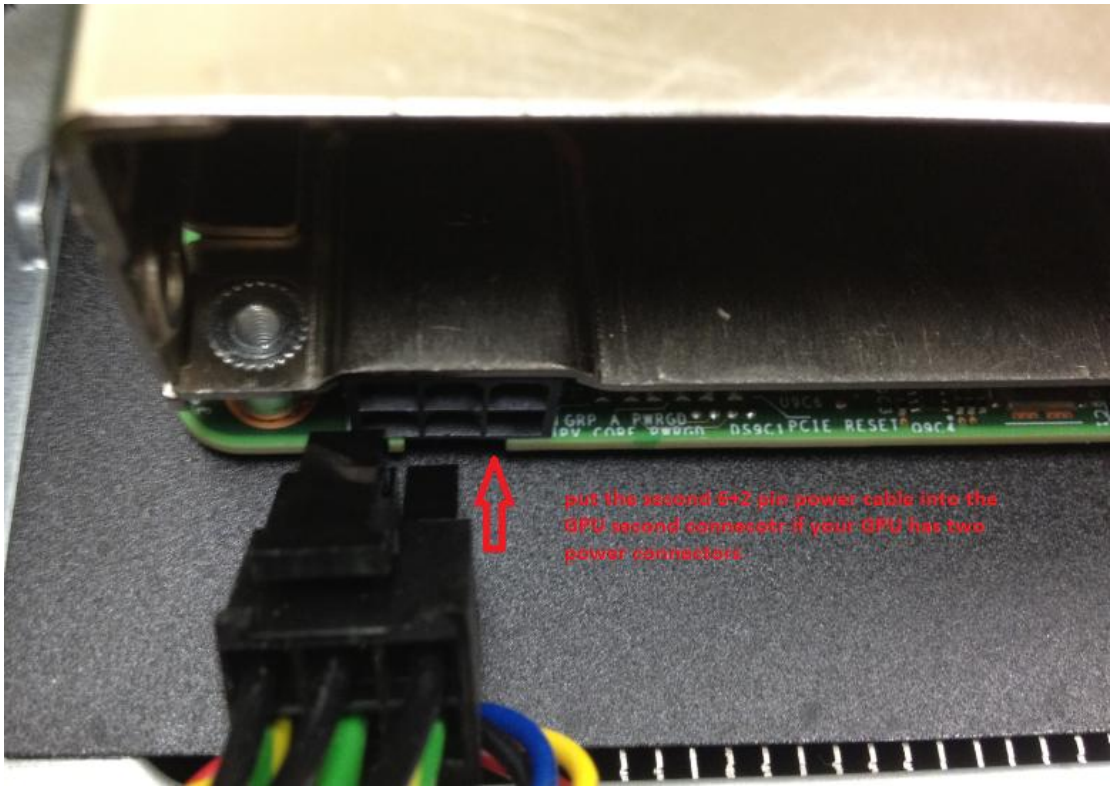
8. Secure the GPU with the 2-mm screw as indicated.



9. Insert the 6+2 pin power cables into the GPU power connector.

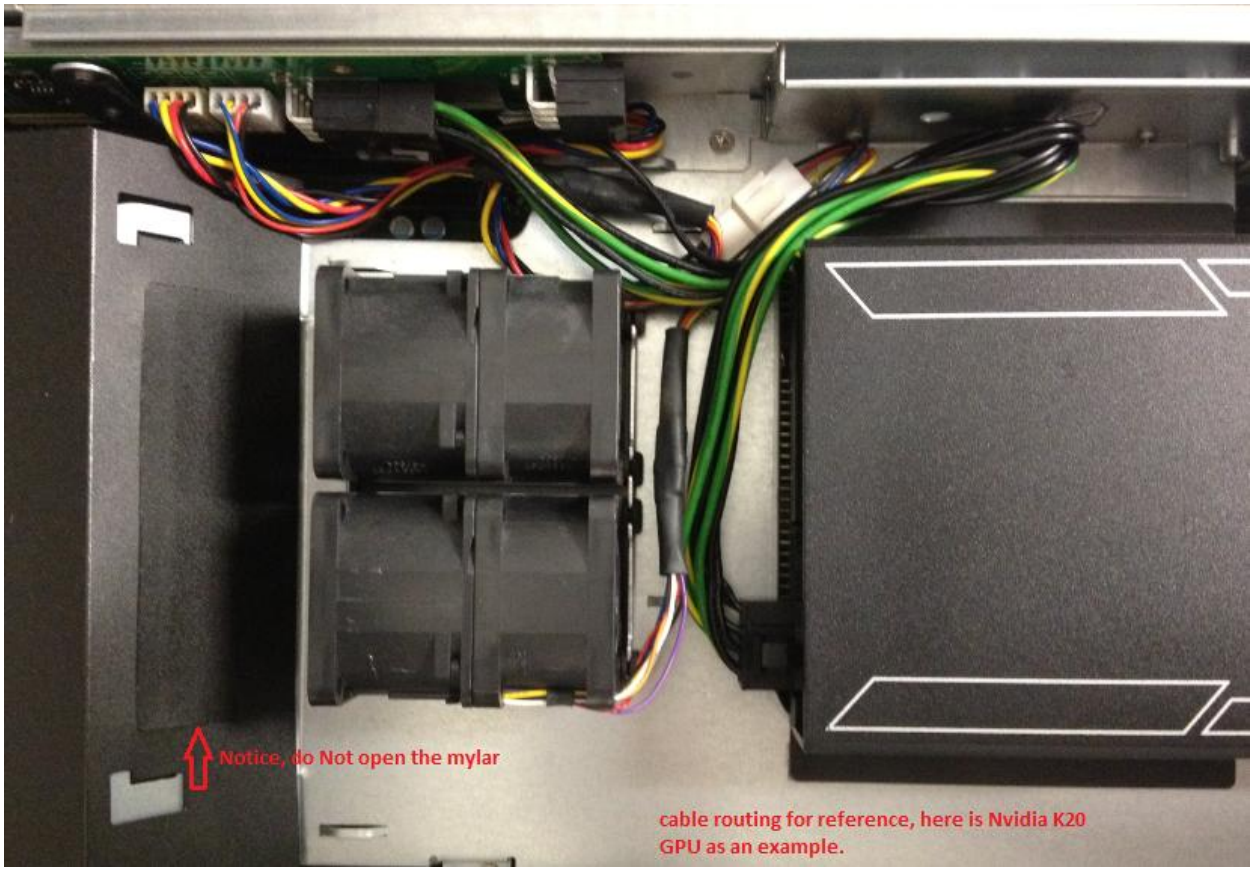


10. If your GPU has two power connectors, please insert the second power cable as shown below.

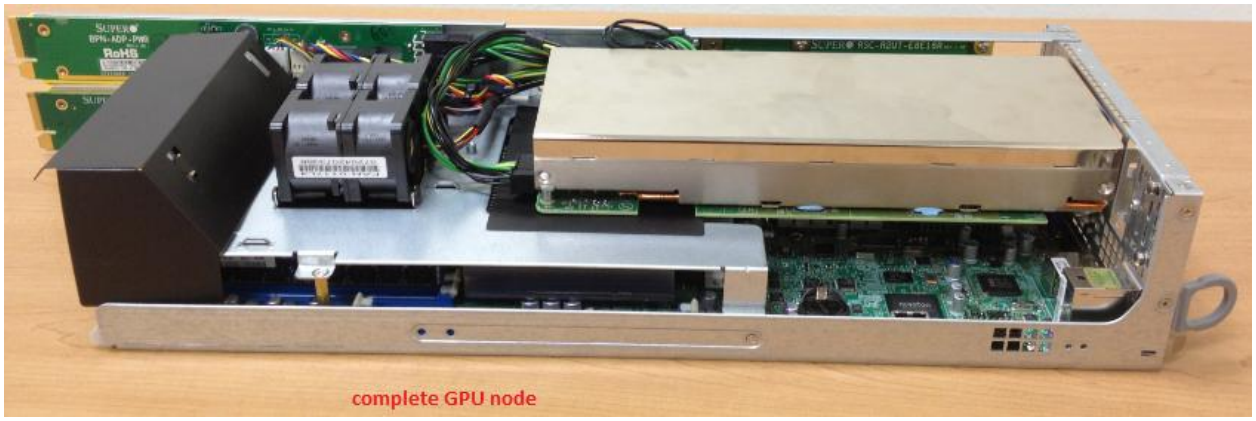


Cable Routing:

1. Cables should be routed as shown below. Note:do not remove the mylar covering to try to provide better cooling.



Completed the GPU kit with GPU correctly installed.



Insert your assembled GPU node to your 2U Twin!