Objective

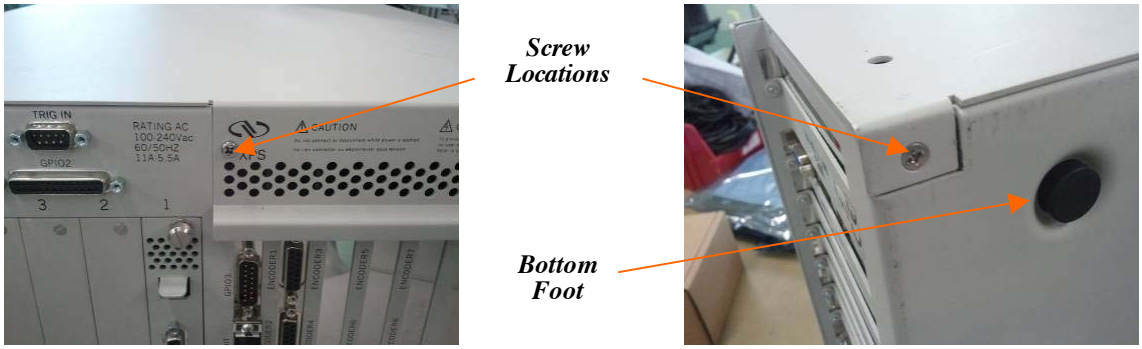
Replace the original XPS **CPU board** (90027567) with the **QNX CPU board** (E4797x).

Necessary Equipment

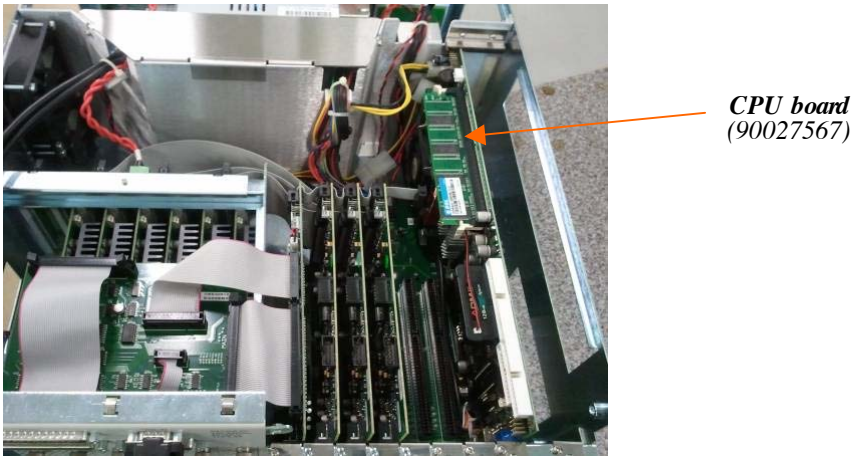
- 1 QNX CPU board (E4797x)
- 1 ribbon cable (E4770x)
- 4 cable ties

1. Remove the XPS Cover

1. Disconnect all cables from the XPS.
2. Remove the 3 Phillips screws; one at center-rear, the other two, under the rear-corners. If rack mounting brackets are installed, remove the brackets first.



3. Remove the cover by sliding it towards the back by approx. 1 inch and then lifting it straight up.



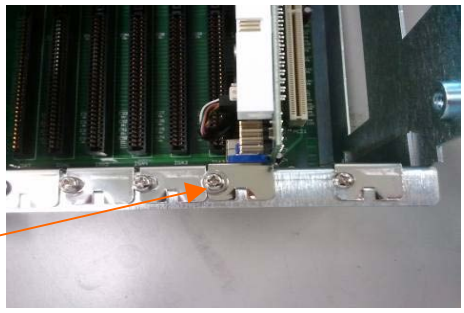
Inside view of an XPS.

2. Removing the CPU Board (90027567)

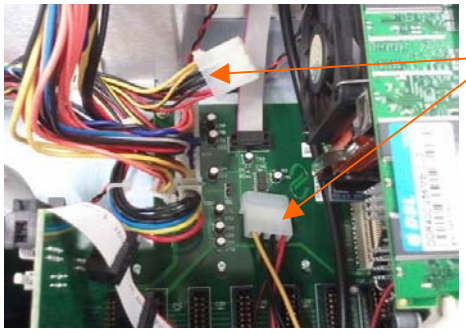
WARNING

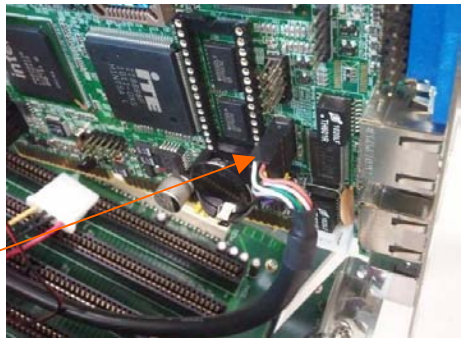
Before handling any circuit board, electrically ground yourself properly using a wrist strap! Otherwise, static electricity can damage the components on the board.

The CPU board is held by 3 screws (3x6) and a retention bracket.



1. Remove the 3 screws and the retention bracket. Put them aside for installation later.
2. Disconnect the 3 cables from the CPU board. (see photos).
   i. **DiskOnModule** supply cable – leave the two wire connector attached to the memory module. A cable tie might need to be cut to allow removal of the DiskOnModule supply cable. If the space is too tight, another method is to carefully pull out the CPU board about 3" and then carefully unplug the connectors.
   ii. **COM1** port cable (E4421x).
   iii. **Supply** 4-pin cable.





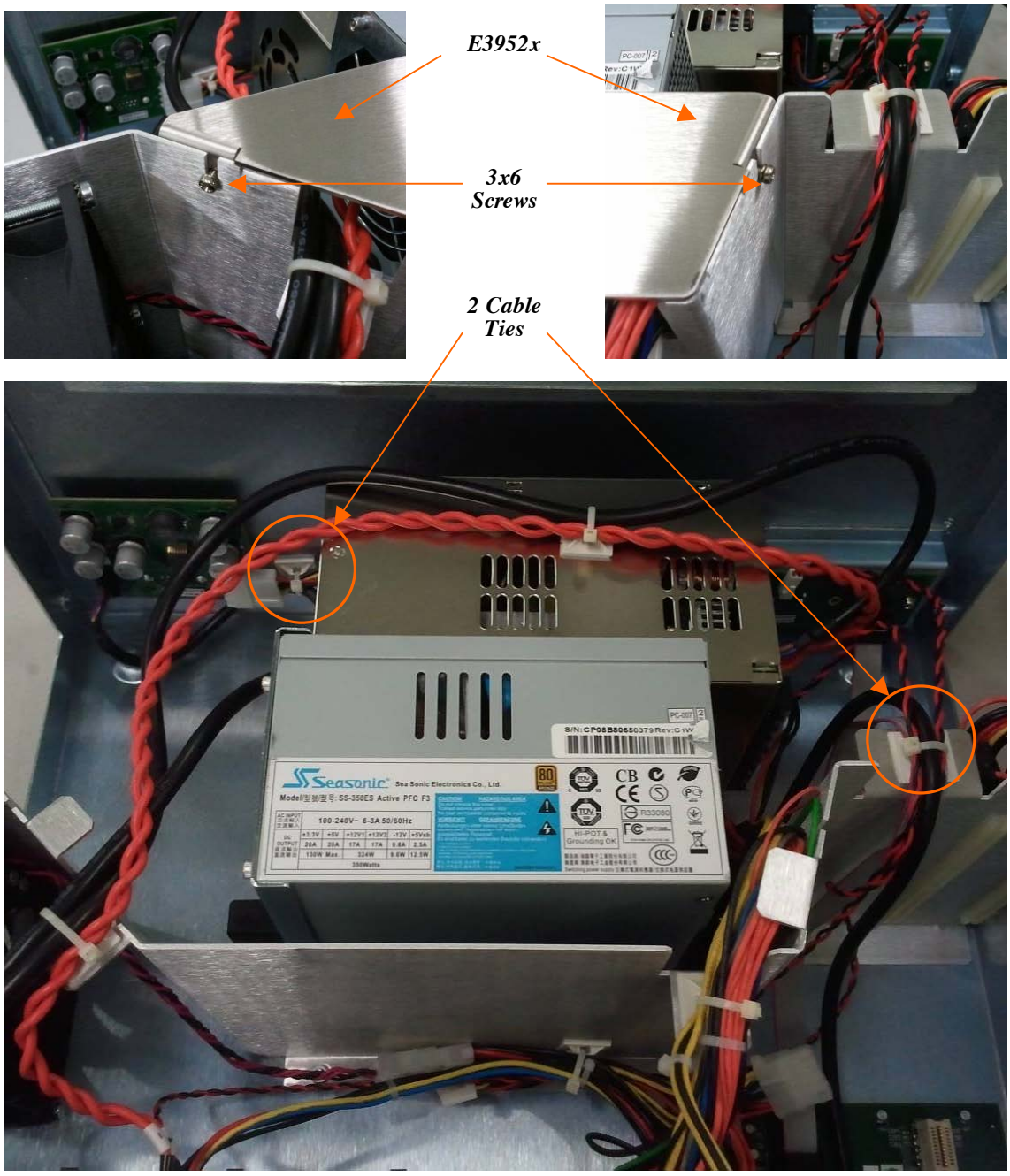
WARNING

Be careful with handling cables and connectors. If you suspect a cable may be damaged after handling, replace it with a new cable.

3. Vertically pull the CPU board and remove it from the XPS.

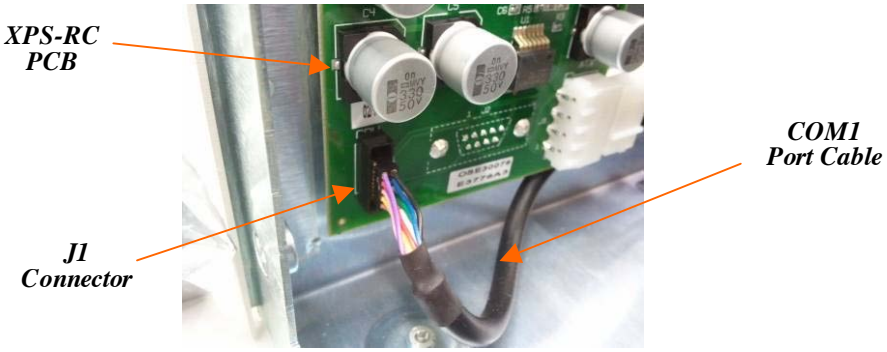
3. Replacement of the COM1 Port Cable (E4421x)

1. Remove the metal cover plate (E3952x) secured above the power supply with 2, **3x6** screws. Set aside for later use.



View of the two power supplies after removing the metal cover plate.

2. The COM1 port cable (E4421x) is attached with cable ties at 2 locations: one is on the power supply partition, and the second is near the XPS-RC PCB (E3776x).
3. Cut these 2 cable ties with care.
4. Unplug the COM1 port cable (E4421x) on J1 from the XPS-RC PCB (E3776x).
5. Remove the COM1 port cable from the XPS.



4. Installation of the Ribbon Cable (E4770x)

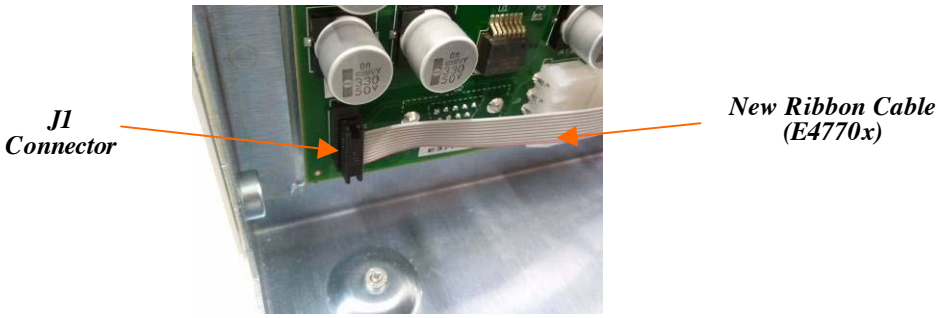
At the cable ends, there are two different connectors:

i. 1 mm pitch connector (to connect to J1 on the XPS-RC PCB (E3776x)).

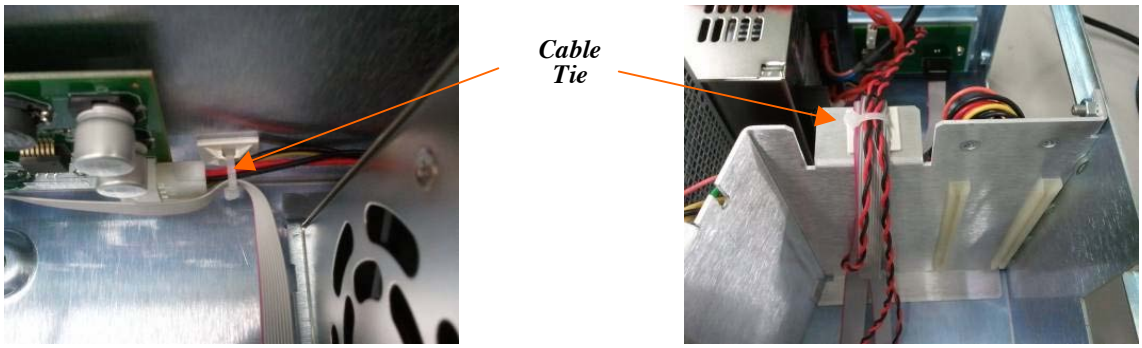
ii. 2.54 mm pitch connector (to connect to the COM1 of the new CPU board (E4797A)).

The ribbon cable will be mounted in the same location in the XPS rack as the old COM1 port cable.

1. Connect the 1 mm pitch connector to J1 on the XPS-RC PCB (E3776x).

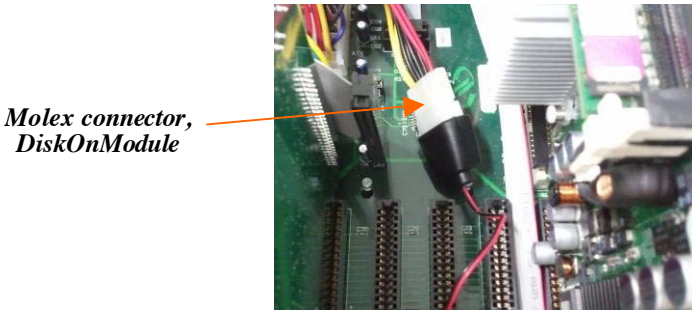


2. Use **2 cable ties** to secure the ribbon cable (E4770x) at the same locations as the old cable ties. Do not tighten until the cable routing is correct.

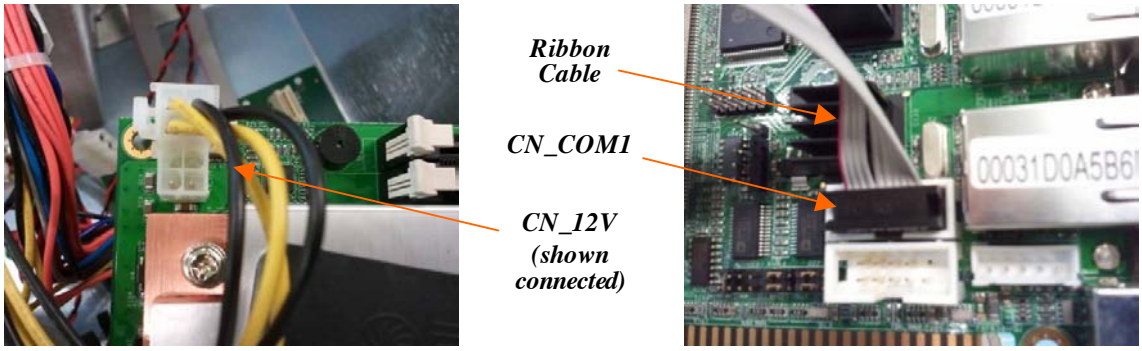


5. Installation of the Replacement QNX CPU Board (E4797x)

1. Position the CPU board above its slot to enable easy cable connections. Do not insert into the slot yet.
2. Connect the **DiskOnModule** to the Molex connector.



3. Connect the **Ribbon cable** to the connector **CN_COM1** on the CPU board.
4. Connect the **Supply 4-pin cable** to the connector **CN_12V** on the CPU board. The **CN_12V** connector is the upper part of the white connector.



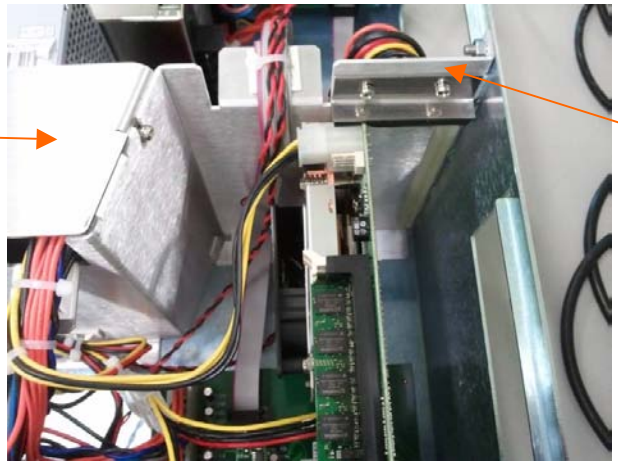
5. Insert the QNX CPU board in the ISA and PCI slot. You may need some effort to fully seat the board.

CAUTION

Be careful not to pinch any cables while inserting the QNX CPU board in the ISA and PCI slot. Ensure that cables do not touch the CPU board and tie-wrap as needed.

CPU board after installation.

6. Reinstall the retention bracket and press down to secure the new QNX CPU board (E4797x) with the 3 screws.
7. Reinstall the metal cover plate (E3952x) with the 2 screws.



6. Replace the XPS Cover

Follow the steps in the reverse order from Section 1 to replace and secure the cover.

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Newport Corporation, Global Headquarters
1791 Deere Avenue, Irvine, CA 92606, USA
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	PHONE	EMAIL		PHONE	EMAIL
Belgium	+32-(0)0800-11 257	belgium@newport.com	Irvine, CA, USA	+1-800-222-6440	sales@newport.com
China	+86-10-6267-0065	china@newport.com	Netherlands	+31-(0)30 6592111	netherlands@newport.com
France	+33-(0)1-60-91-68-68	france@newport.com	United Kingdom	+44-1235-432-710	uk@newport.com
Japan	+81-3-3794-5511	spectra-physics@splasers.co.jp	Germany / Austria / Switzerland	+49-(0)6151-708-0	germany@newport.com
Taiwan	+886 -(0)2-2508-4977	sales@newport.com.tw			