

NOTE TO USERS

Installing EMI Controls on Your NI FlexRIO™ System

To ensure the EMC performance indicated in your specifications document, EMI gaskets and PXI EMC filler panels must be properly installed on your NI FlexRIO system. Your kit includes EMI gaskets (NI part number 746228-01), but PXI EMC filler panels (NI part number 778700-01) must be purchased separately. For more installation information, refer to the *NI FlexRIO FPGA Module Installation Guide and Specifications*.

Installing EMI Gaskets

Complete the following steps to install EMI gaskets on your NI FlexRIO system:

1. If your NI FlexRIO FPGA module is installed in a chassis, power down the chassis and remove the NI FlexRIO FPGA module from the chassis.
2. Attach the NI FlexRIO adapter module to the NI FlexRIO FPGA module, as shown in Figure 1.
3. Tighten the captive screws to secure the NI FlexRIO adapter module to the NI FlexRIO FPGA module.

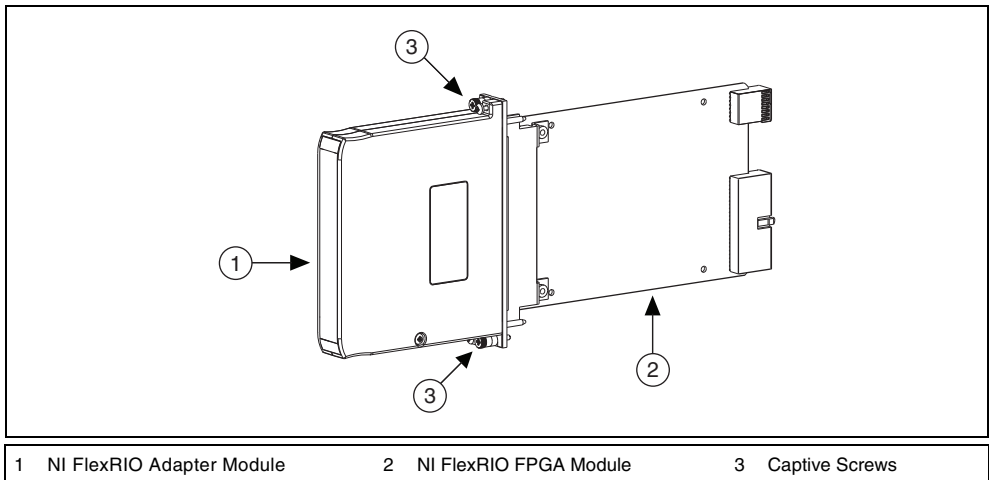


Figure 1. NI FlexRIO Adapter Module and NI FlexRIO FPGA Module

4. To attach the EMI gasket, complete the following steps:



Caution To avoid incorrectly positioning the EMI gasket, carefully review the following steps and Figures 2 through 5 before attaching the EMI gasket.

- a. Remove the adhesive backing from the EMI gasket.
- b. Position the EMI gasket vertically at the rear of the NI FlexRIO adapter module, near where it connects with the NI FlexRIO FPGA module, as shown in Figure 2.

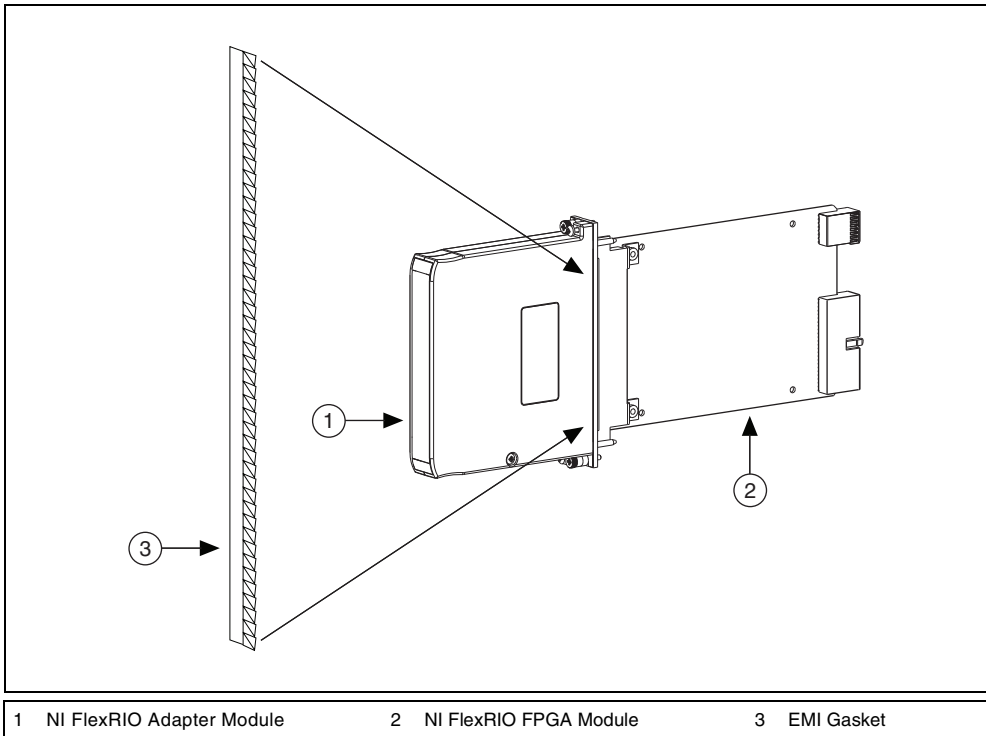


Figure 2. EMI Gasket Placement on the NI FlexRIO System

- c. Center the EMI gasket vertically on the inside edges of the two alignment posts, as shown in Figure 3.

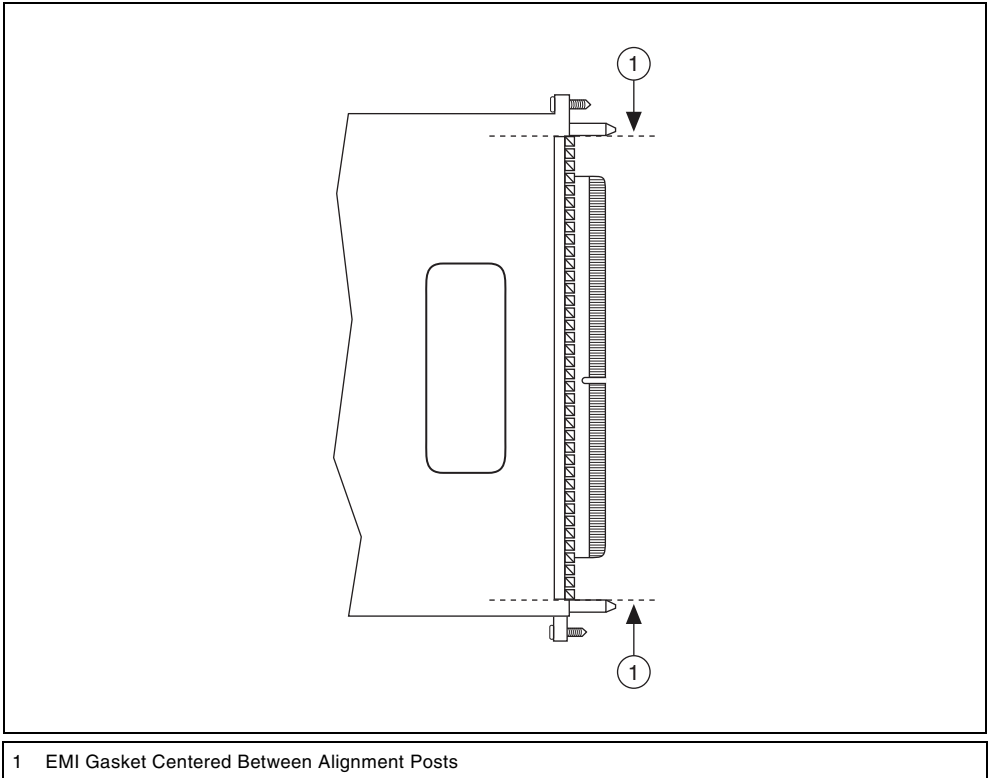
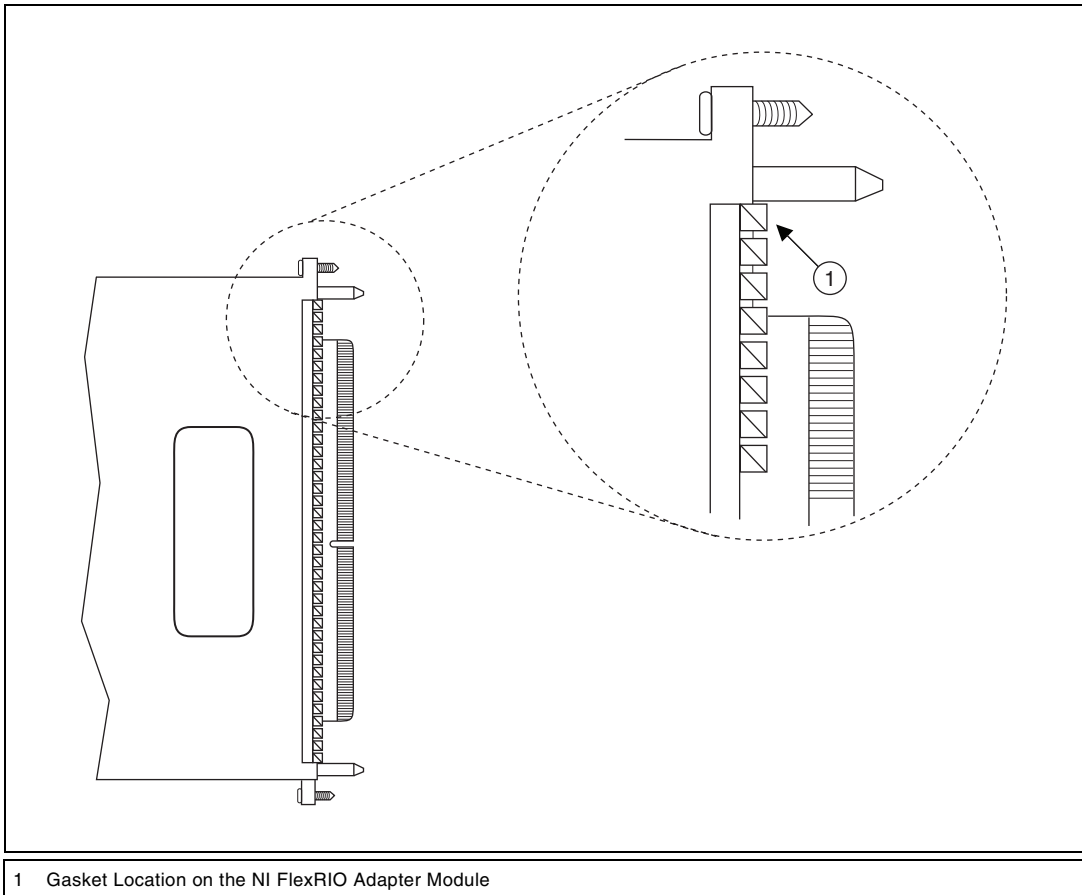


Figure 3. Vertical Placement of EMI Gasket Between Alignment Posts

- d. Attach the EMI gasket to NI FlexRIO adapter module such that the long, straight edge lies entirely on the NI FlexRIO adapter module and the fingered edge lies half on the NI FlexRIO adapter module and half on the NI FlexRIO FPGA module, as shown in Figure 4.



1 Gasket Location on the NI FlexRIO Adapter Module

Figure 4. EMI Gasket Fingered Edge Placement

- e. Repeat steps a through d to place the second EMI gasket on the opposite side of the NI FlexRIO adapter module, centering it vertically between the screw holes, as shown in Figure 5.

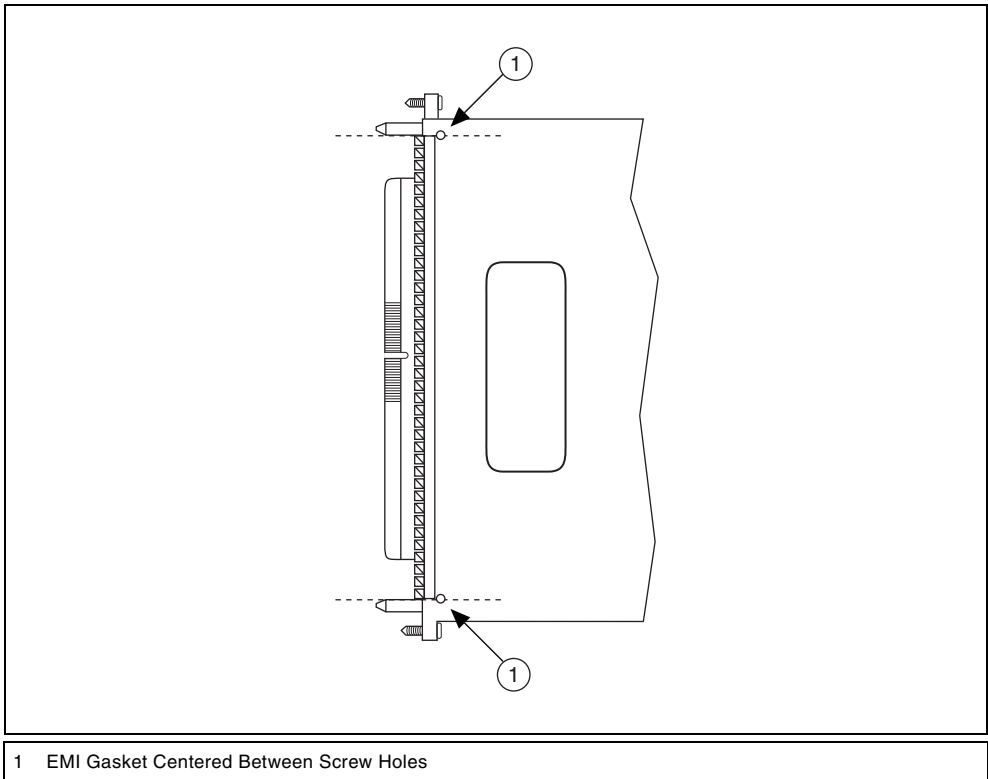


Figure 5. Vertical Placement of EMI Gasket Between Screw Holes

5. Remove any PXI devices or PXI EMC filler panels from slots directly adjacent to the PXI slot in which you plan to install your NI FlexRIO system.
6. Install the NI FlexRIO adapter module and NI FlexRIO FPGA module, still connected together, in the appropriate PXI chassis slot.
7. Reinstall any other PXI devices or PXI EMC filler panels in your chassis.

Installing PXI EMC Filler Panels

Complete the following instructions to install PXI EMC filler panels (National Instruments part number 778700-01) in your PXI chassis:

1. Remove the captive screw covers.
2. Install the PXI EMC filler panels by securing the captive mounting screws to the chassis, as shown in Figure 6. Make sure that the EMC gasket is on the right side of the PXI EMC filler panel.

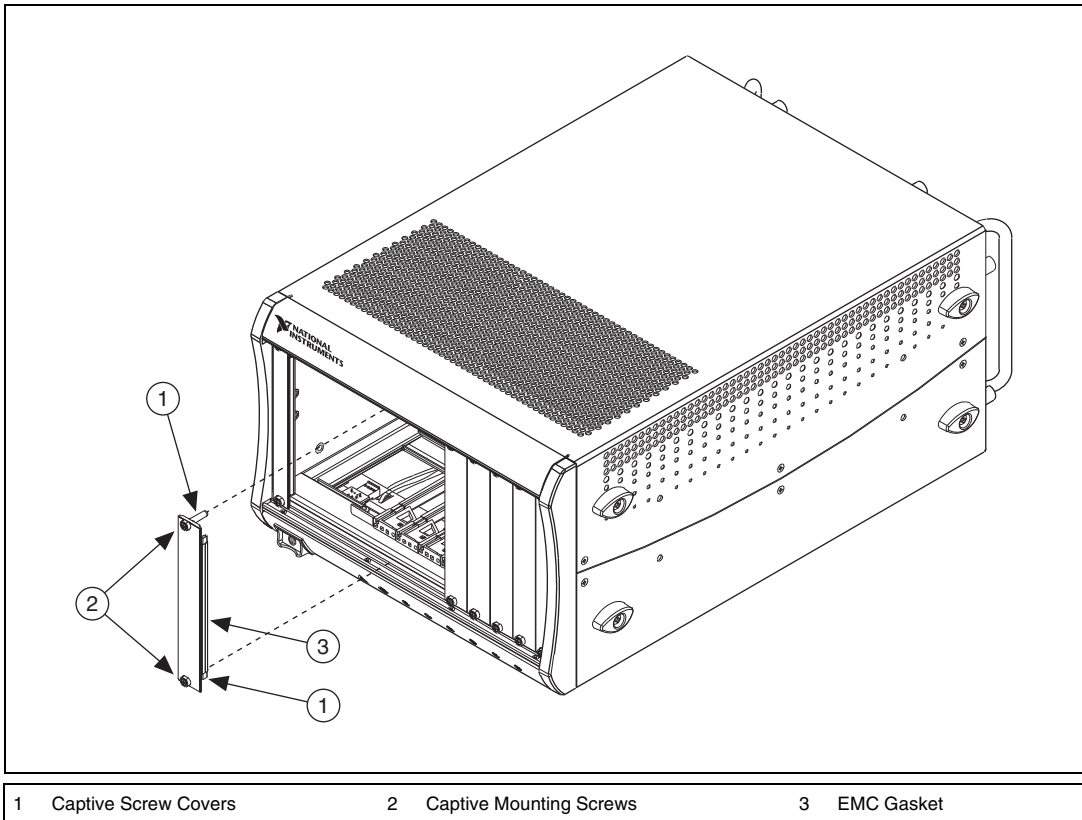


Figure 6. PXI EMC Filler Panels and Chassis



Note You must populate all slots with a module or a PXI EMC filler panel to ensure proper module cooling. Do not over tighten screws (2.5 lb.-inch maximum). For additional information about the use of PXI EMC filler panels in your PXI system, visit ni.com/info and enter `emcpanels`.

Where to Go for Support

The National Instruments Web site is your complete resource for technical support. At ni.com/support you have access to everything from troubleshooting and application development self-help resources to email and phone assistance from NI Application Engineers.

National Instruments corporate headquarters is located at 11500 North Mopac Expressway, Austin, Texas, 78759-3504. National Instruments also has offices located around the world to help address your support needs. For telephone support in the United States, create your service request at ni.com/support and follow the calling instructions or dial 512 795 8248. For telephone support outside the United States, contact your local branch office:

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