



Hardware Installation Guide

ACQ216CPCI M5

16 Channel Signal Conditioning Mezzanine Card

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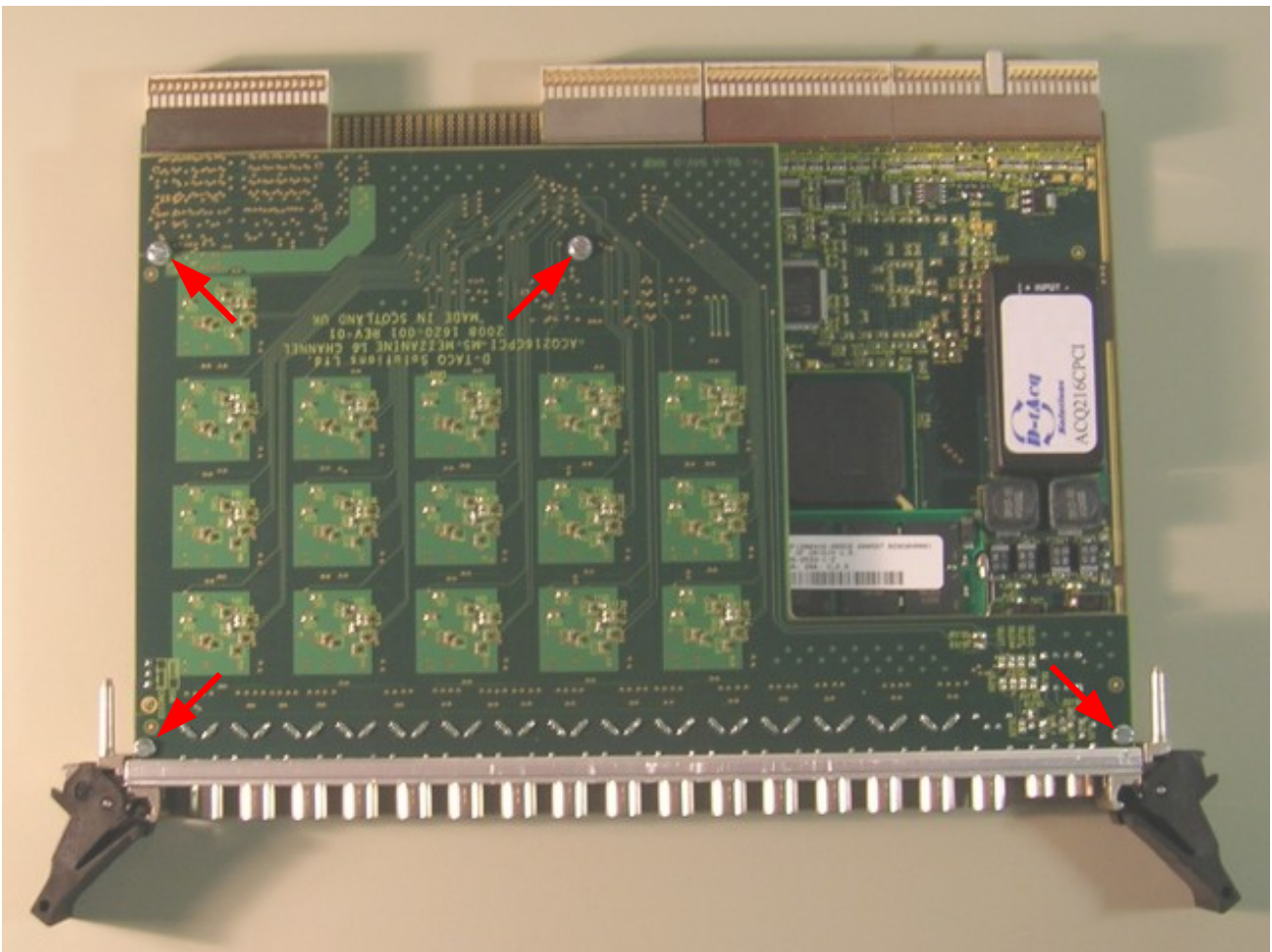
1 Installation Notes

The ACQ216CPCI M5 Mezzanine is a complex multilayer card. Special care should be taken in handling. The card is susceptible to damage by ESD and improper power connections.

- 1.1 Ensure ESD precautions are taken before opening card from packaging.
- 1.2 This card only fits on the ACQ216CPCI 6U CPCI Digitiser.
- 1.3 This card must be used in conjunction with a ACQ216CPCI-RTM-DDS Rear Transition Module. This RTM provides the power for the amplifier section which will be inoperative if this RTM is not used.
- 1.4 Ensure proper ESD precautions are taken during installation.

2 ACQ216CPCI Main Board Preparation

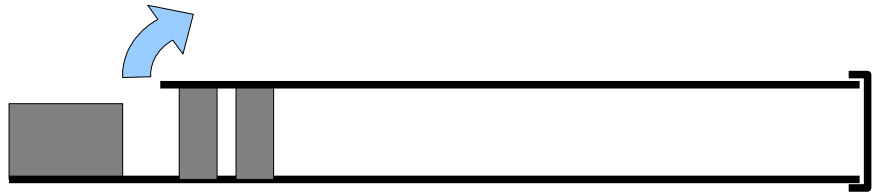
The ACQ216CPCI board with existing mezzanine should be placed flat on a table and the existing mezzanine dis-assembled by removing four securing screws as shown in the picture below.



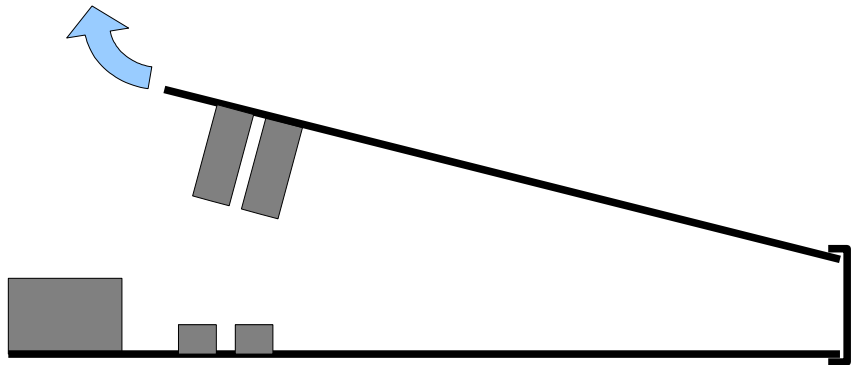
Care should be taken with any screws and any plastic insulating washers since they should be retained for assembly with the M5 Mezzanine.

The mezzanine is removed by lifting the board up from the mezzanine connectors tilting it up with the board edge in the groove on the front panel. Once the connectors are free the mezzanine can then be removed by pulling it out and up away from the front panel as shown in the diagram below.

Step 1

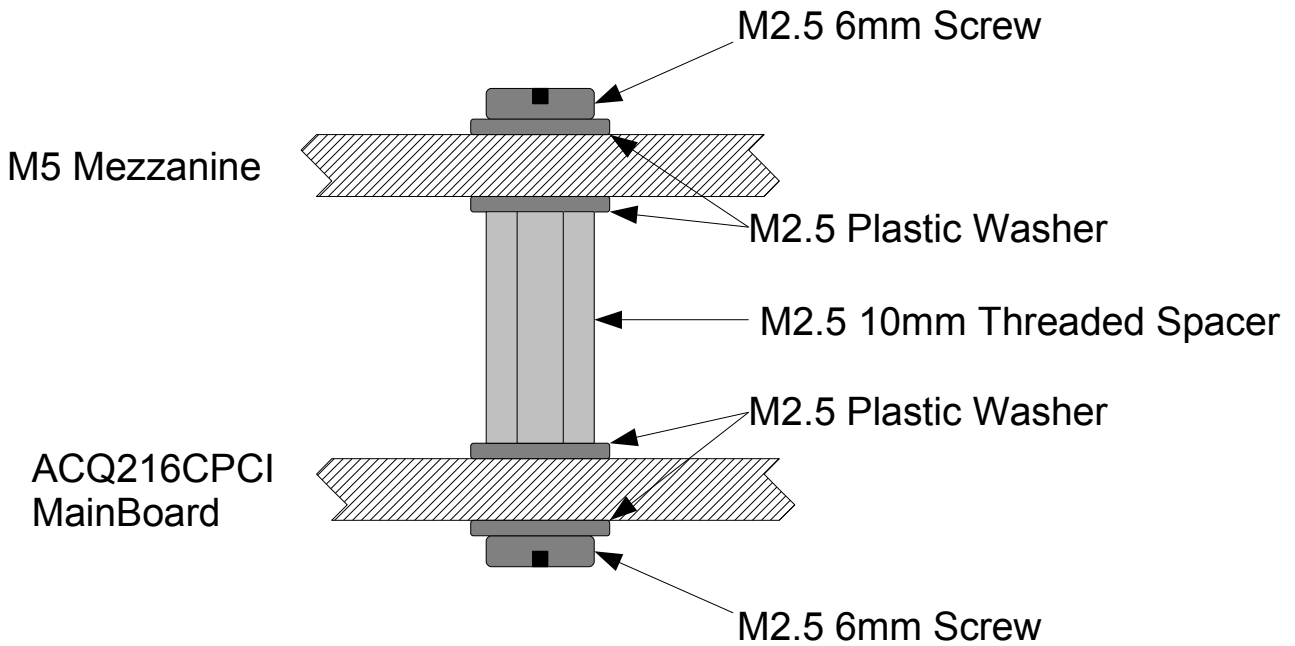


Step 2



3 Assembly of M5 Mezzanine

Due to the proximity of routing vias to the mounting holes it is important to ensure that the insulating plastic washers are correctly fitted to the spacers on the ACQ216CPCI Main Board. On other Mezzanine boards there are 2 washers between the ACQ216CPCI and the spacer – if this is the current state of the board then one must be removed since the total height is for the spacer + two insulating washers. The diagram below shows the correct build.



Apart from the above the assembly of the M5 Mezzanine on top the ACQ216CPCI Main Board is simply the reverse of the original mezzanine dis-assembly. Ensure all screws are refitted since the mezzanine interface connectors are not designed to take the strain of connectors being inserted and removed at the front panel.