

Technical Details

Interposer Mounting

Introduction

This document will explain how to fit the J-Testr interposer correctly.

Due to system mechanical tolerances the interposer design has special square mounting holes, with rounded corners, as detailed in Figure 1. These holes allow the interposer some mechanical 'compliance' such that the peripheral cards can properly align to both the interposer and the system internal motherboard.

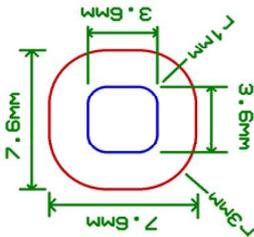


Figure 1 – Interposer hole outline (Blue) and hole keep-out (Red)

Even though fitting the interposer is very simple, it is important that the procedure detailed in this document is followed to ensure no damage comes to the interposer or the peripheral cards.

Procedure

With no peripheral cards fitted, place the interposer into position using 8 x M3x6mm screws as shown in Figure 2. The 8 screws must **NOT** be tightened so that the interposer can move slightly in the X/Y direction. To achieve a consistent 'loose' fit it is recommend to first slightly tighten all the 8 screws, and then loosen all the 8 screws by $\frac{1}{4}$ a turn. Fitting more than 8 screws, even loosely, should not be done since this can still restrict the interposer X/Y movement. Fitting less than 8 screws should not be done unless there are only very few peripherals fitted because the screws are required to support the peripheral connectors during plugging of the peripheral card(s).

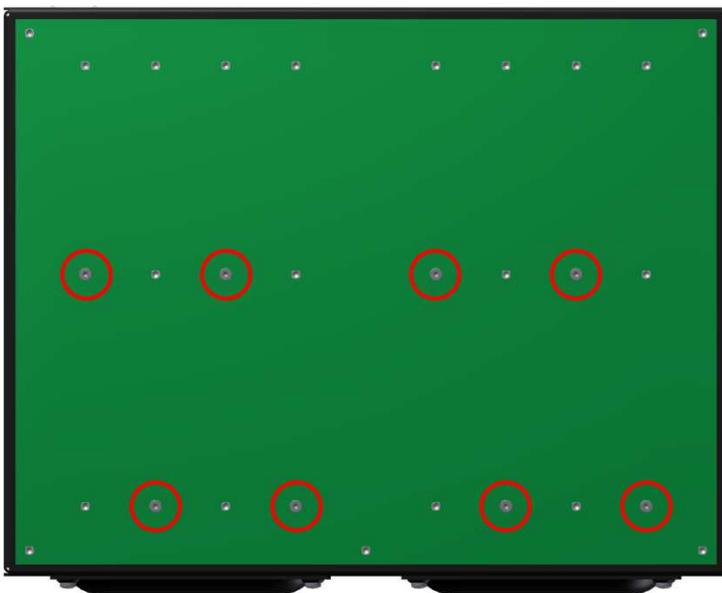


Figure 2 - Interposer with the initial 8 screws fitted in alternating pattern.

Once the interposer is in place, it will be necessary to turn the J-Testr upside-down. To protect the interposer from damage when the tester is upside-down, it is recommended to place some very loosely fitted standoffs (or mount the top mounting plate) as shown in Figure 3.

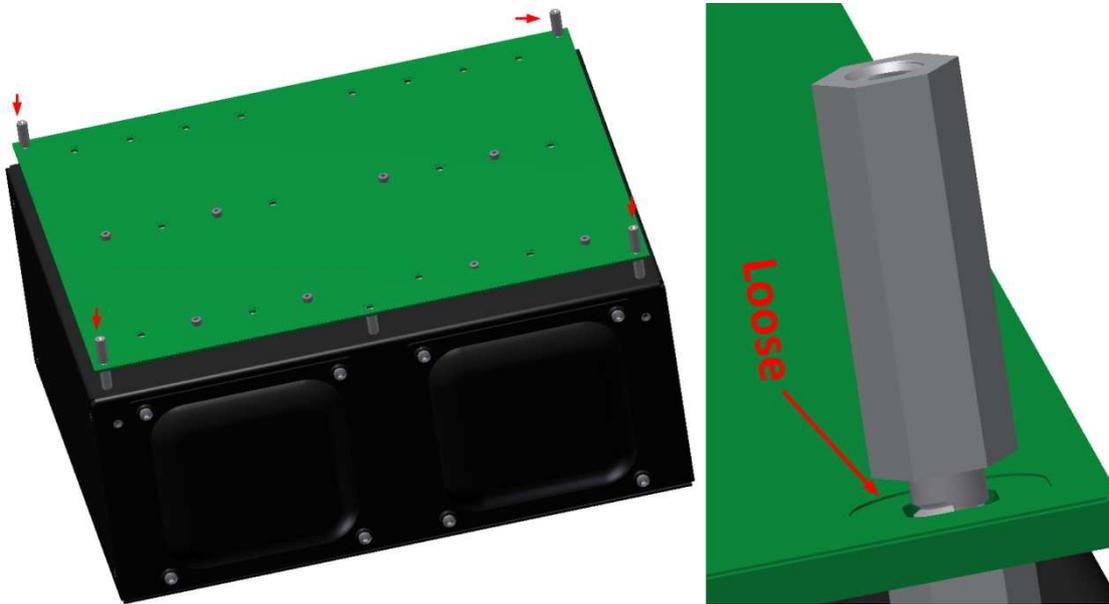


Figure 3 - Recommended standoffs to protect Interposer electronics when J-Testr is upside-down.

Starting with the most central peripheral cards, insert them making sure that the card is straight/vertical and in-line with the location slots for the card mounting tabs as shown in Figure 4. The peripheral card will locate into the edge connector before it can be pushed down to make full connection.

Never use excessive force to mount the peripheral cards as the cards edge connection can be damaged.



Figure 4 - Peripheral Card vertical insertion with mounting tabs aligned to tab location slots.

Once all the peripheral cards have been inserted correctly, attached the lid using 8x M3x6 screws as shown in Figure 5

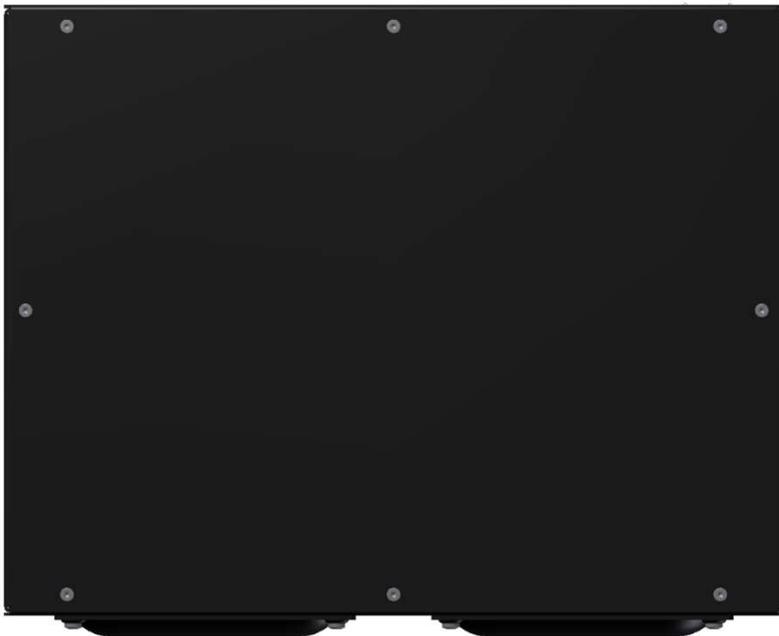


Figure 5 - Lid screws fitted

Turn the J-Testr back around with the interposer upper-most, and fit the remaining interposer M3x6mm mounting screws as shown in Figure 6

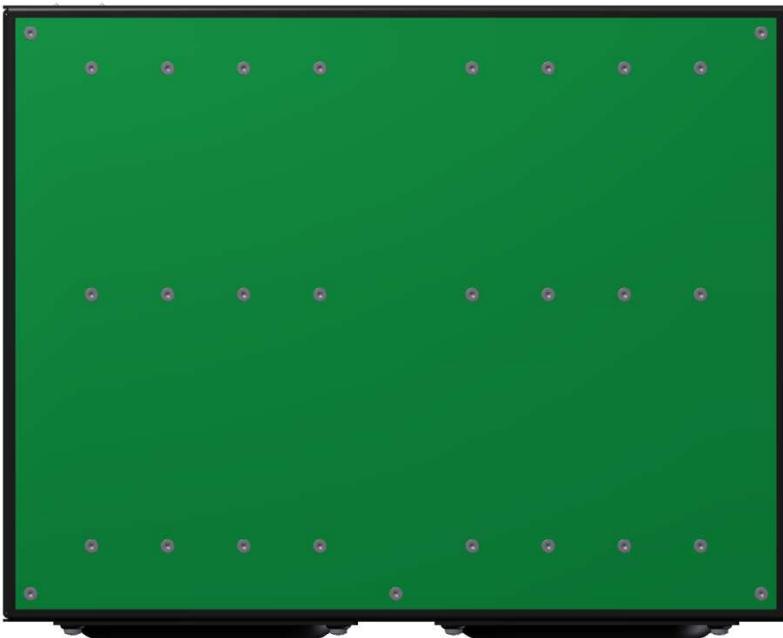


Figure 6 - Interposer with remaining screws fitted