# MitySOM-335x XGA and VGA LCD with Touch Screen Hardware Setup Procedure



**Revision Status**

| Revision | Revision Description | Author | Date |
|---|---|---|---|
| A | Original Release | A.Block | 09/24/2014 |

# Contents

## 1. Purpose

- This document describes the appropriate steps that need to be taken to assemble, configure, and test the addition of an XGA or VGA LCD kit with an existing MitySOM-335x development kit.

## 2. Items Required

- ESD Protection (wrist strap, etc.)
- MitySOM-335x Development Kit (Baseboard and Module)
- 80-000538 or 80-000539
    - NEC XGA or VGA LCD Display with Resistive Touch Overlay
    - 80-000477 LCD Adapter PCA with standoffs mounted
    - Backlight Cable
    - LCD Data Cable
    - Plexiglass Base and LCD Assembled to Plexiglass
    - Assorted hardware

## 3. Hardware Setup Process

1. Please follow industry standard ESD protection steps to prevent damage to any electronics while performing the assembly procedure.

2. Connect the Dev Kit Video Adapter PCA to the Development Board PCA, such that it would rest on the installed standoffs. The connector pins of the Development Board PCA should firmly connect with the connector pins of the Video Adapter PCA. See Figures 1 and 2.
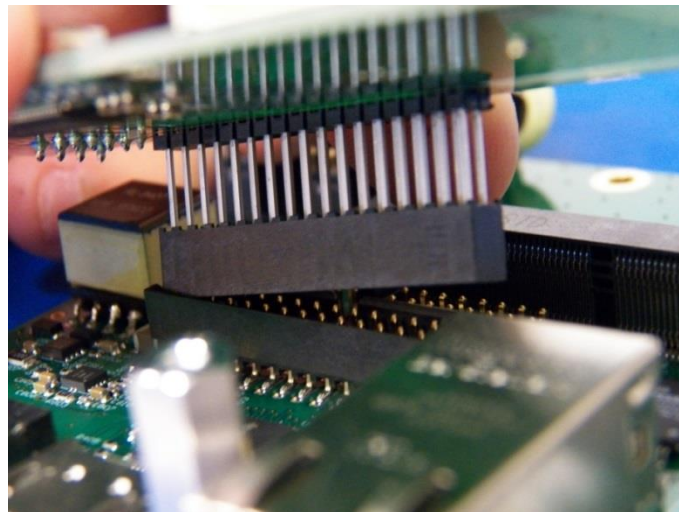


**Figure 1: Connecting the Video Adapter PCA to the Dev Board PCA**

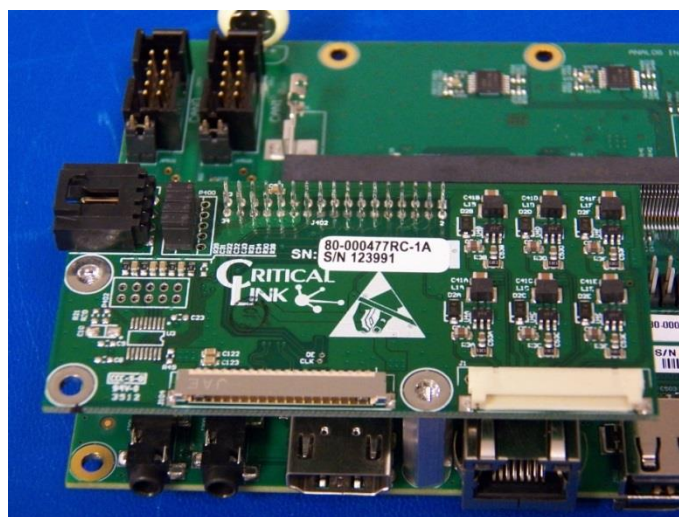3. Press down slightly on the Video Adapter PCA to strengthen the pin connections.



**Figure 2: The Video Adapter PCA connected to the Dev Board PCA**

4. Remove the four screws pre-installed in each standoff on the back side of the LCD/Plexiglass mount. Also remove the tape holding the backlight and data cables to the plexiglass, they will need to be routed to the Display Adapter board.

5. Mount the assembled Development Board Assembly on the Plexiglass Mount on the installed standoffs on all four edges. Insert four screws into the standoffs to connect the Development Board PCA to the Plexiglass Mount.
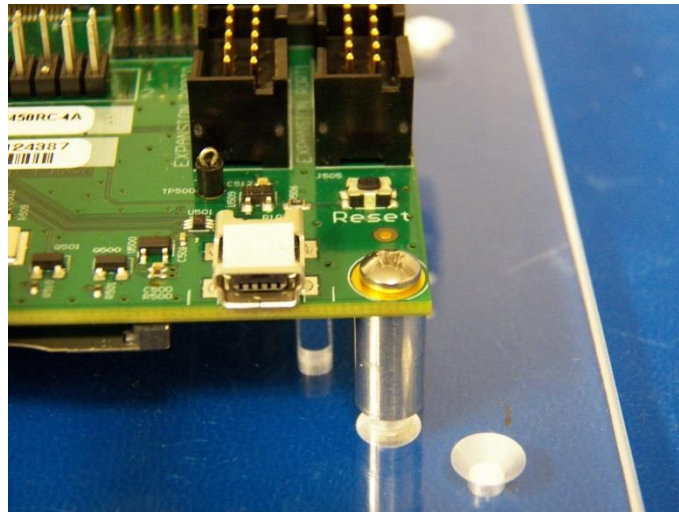


**Figure 3: Mounting the Dev Board PCA Assembly on the Plexiglass Mount**

6. Connect the LCD Backlight Cable and the LCD Data Cable to the pins of the Video Adapter PCA as shown in Figure 4.
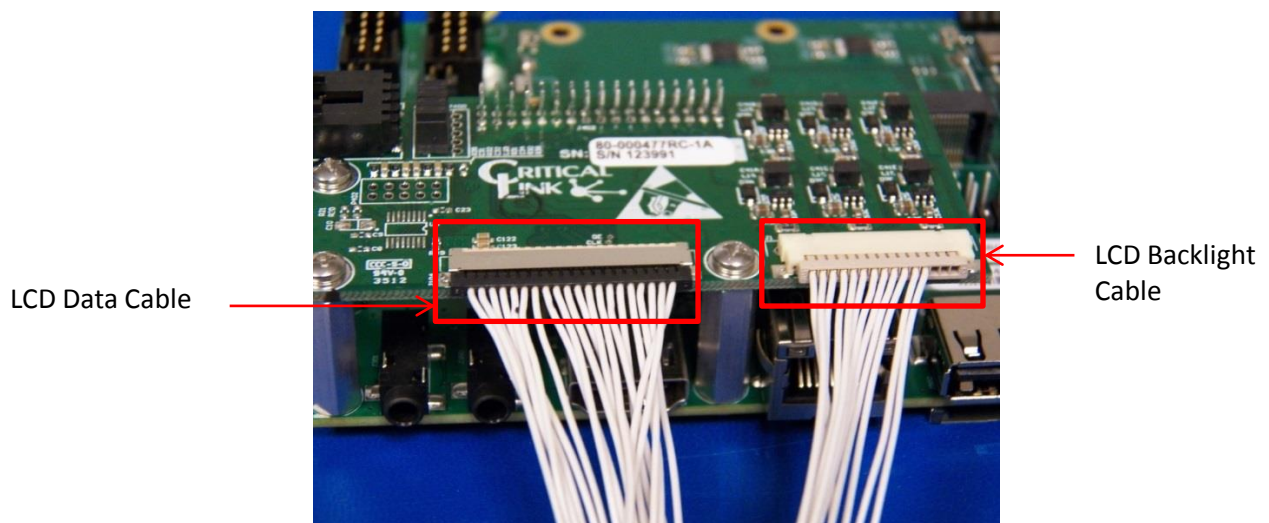


**Figure 4: Connecting the two Cables to the Video Adapter PCA**

7. Insert the Touch Screen cable into the Video Adapter PCA. See Figure 5.

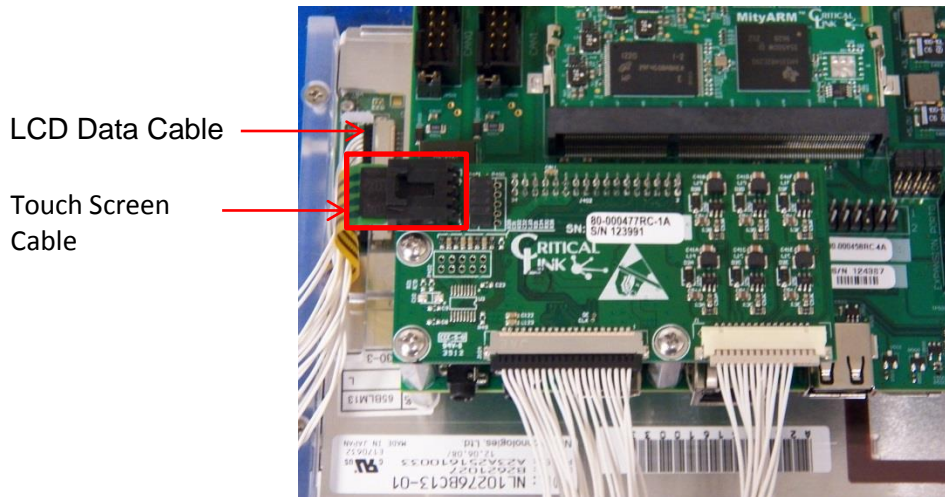LCD Data Cable ———→

Touch Screen
Cable



**Figure 5: All Cables connected to the LCD Display on the other side of the Mount**

8. Connect the plexiglass Base Plate using three screws pre-installed in the main plexiglass assembly. The assembly is shown in Figure 6.
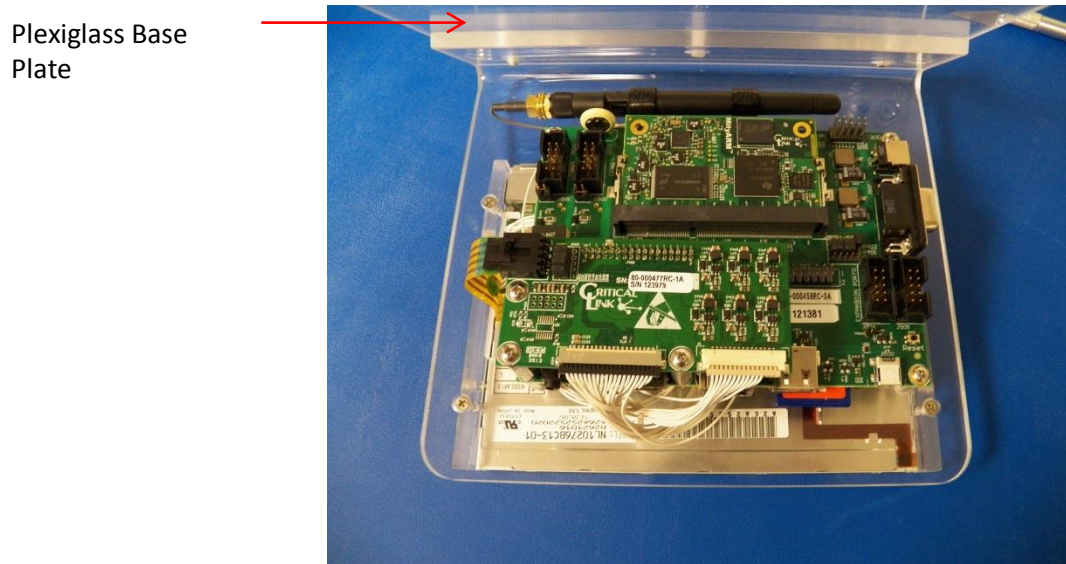
Plexiglass Base
Plate



**Figure 6: Assembly with the Plexiglass Base Plate**

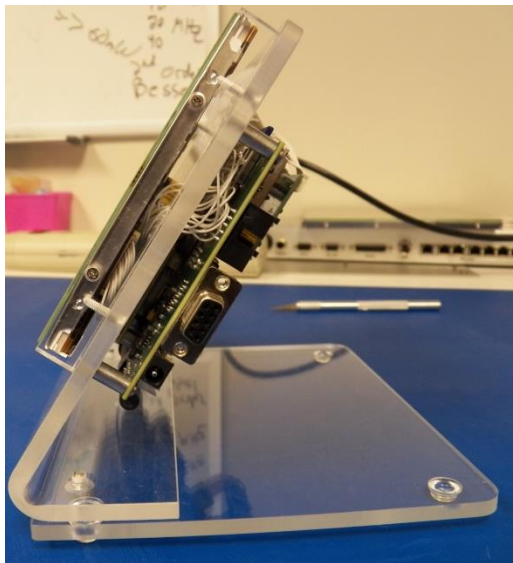9. The Final Assembly is shown in Figures 7 and 8.


**Figure 7: Final Assembly (Front View)**


**Figure 8: Final Assembly (Side View)**