Touch Panel Mounting structure is constructed by parts as follows.

1. LCD
2. Touch panel
3. Top enclosure (Molding case) - covered equipment
4. Double stick tape – sheet metal for fixing or LCD
5. Support (elastic rubber damper) – support surface of molding case

The structure is shown as follows.
Touch Panel Selection

Please adjust the input area of Touch panel from an active area of LCD to the outside by 0.5mm or more.
Please make a transparent area of Touch panel equally to the bezel opening of LCD or any more.
Please adjust the case outline (which is the opening of the case) inside a transparent area of Touch-panel and the bezel opening of LCD.
The section where Touch-panel was mounted is shown as follows.

For example: 3.8 inches LCD

For example: 12.1 inch LCD
Touch Panel Mounting Method

There are two methods of mounting touch panel to LCD.

1. Method of mounting Touch panel to LCD directly
2. Method of mounting Touch panel on sheet metal for fixing to LCD

Please select above methods depending on customer’s application and requirement.
Method of mounting Touch panel to LCD directly

Thin and space saving structure is required when Touch panel is used for PDA and pen PC. This method is suitable for these applications needed space saving and thin. It is simple structure that touch panel put on the bezel of LCD by double stick tape and mounted it to LCD by top enclosure boss.

It could be caused miss–input that top enclosure pushes touch panel directly. Please put support material (elastic rubber damper) between top enclosure and touch panel.

Notes:

(1) Please set support material (elastic rubber damper) out of view (transparent) area. Consider the tolerance of support material, the tolerance of the material placement and placement margins between edge of the support material and active area; please design the support material not to protrude to view area any time. (Do not design rubber damper presses view area to prevent from miss input)

(2) Please set enclosure edge between view area & guaranteed active area. (Don not design enclosure touches view area.)

(3) Please open the gap of 1mm or more on the back of Touch panel and the display side of LCD.

(4) We recommend the material of fixing Touch panel is elastic material like rubber.

(5) Do not glue the surface (film) of Touch panel to the top enclosure.

(6) The corner parts have conductivity.
   Do no touch any metal part after mounting.

(7) Special design is required for water resistance use.

(8) We recommend that I/F connector is SFW4R-1STAE1-LF. (FCI Japan)
Method of mounting Touch panel on sheet metal for fixing to LCD

When large size LCD is used with large size touch panel, the weight is heavy. Moreover, it could be caused bad Influence to LCD by excess stress on a front part of LCD when touch panel is pushed.

In this case, we recommend that touch panel is pasted on the sheet metal by double stick tape and this sheet metal is fixed on LCD by tighten screws. This method will be decreased bad Influence to LCD due to the stress from pushing touch panel is go to the application, not LCD. Please put support material (elastic rubber damper) between top enclosure and touch panel to preventing miss-input that top enclosure pushes touch panel directly.

It is possible to combine inverter, touch panel controller by setting sheet metal for fixing I/F circuit on the backside of LCD.

Notes

(1) Please set support material (elastic rubber damper) out of view (transparent) area. Consider the tolerance of support material, the tolerance of the material placement and placement margins between edge of the support material and active area; please design the support material not to protrude to view area any time. (Do not design rubber damper pushing view area to prevent from miss-input.)

(2) Please set enclosure edge between view area & guaranteed active area. (Do not design the top enclosure to touch the view area.)

(3) Please open the gap of 1mm or more on the back of Touch-panel and the display side of LCD.

(4) We recommend the material of fixing Touch panel is elastic material like rubber.

(5) Do not glue the surface (film) of Touch panel to the top enclosure.

(6) The corner parts have conductivity. Do no touch any metal part after mounting.

(7) Please make a space for swelling part (Diode) of PANEL surface.
(8) Special design is required for water resistance use.

(9) We recommend that I/F connector is SFW4R-1STAE1-LF. (FCI Japan)
Attention for Touch Panel

(1) AS touch panel is consist of Glass, please be careful your hand and other part from injury at handling. You must wear gloves at handling.

(2) Do not put a heavy shock or stress on Touch panel.

(3) Do not lift Touch panel by cable.

(4) Do not add any stress only film. (Ex. Don't transfer the panel by film with vacuum)

(5) Please use dry cloth or soft cloth with a little neutral detergent or Ethanol while cleaning. Do not use any organic solvent, acid or alkaline solution.

(6) Do not pile up Touch panels. Do not put heavy things on Touch panel.

(7) Do not bend a cable in order to prevent from breaking. Please don't insert the cable like a following method.
Recommendation

- Rubber Damper
  
  INOAC LE-20 t=2.0
  
  URL: http://www.inoac.co.jp/

- Double Stick Tape
  
  Teraoka No.769X t=0.1
  
  URL: http://www.teraokatape.co.jp/e/index-e.html

  NITTO DENKO No.541 t=0.75
  
  URL: http://www.nitto.com/

- I/F connector
  
  SFW4R-1STAE1-LF (FCI Japan)
Fujitsu Components International Headquarters Offices

<table>
<thead>
<tr>
<th>Japan</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fujitsu Component Limited</td>
<td>Fujitsu Components Europe B.V.</td>
</tr>
<tr>
<td>Gotanda-Chuo Building</td>
<td>Diamantlaan 25</td>
</tr>
<tr>
<td>3-5, Higashigotanda 2-chome, Shinagawa-ku</td>
<td>2132 WV Hoofddorp</td>
</tr>
<tr>
<td>Tokyo 141 8630, Japan</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Tel: (81-3) 5449-7010</td>
<td>Tel: (31-23) 5560910</td>
</tr>
<tr>
<td>Fax: (81-3) 5449-2626</td>
<td>Fax: (31-23) 5560950</td>
</tr>
<tr>
<td>Email: <a href="mailto:promothq@fcl.fujitsu.com">promothq@fcl.fujitsu.com</a></td>
<td>Email: <a href="mailto:info@fceu.fujitsu.com">info@fceu.fujitsu.com</a></td>
</tr>
<tr>
<td>Web: <a href="http://www.fcl.fujitsu.com">www.fcl.fujitsu.com</a></td>
<td>Web: emea.fujitsu.com/</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>North and South America</th>
<th>Asia Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fujitsu Components America, Inc.</td>
<td>Fujitsu Components Asia Ltd.</td>
</tr>
<tr>
<td>250 E. Caribbean Drive</td>
<td>102E Pasir Panjang Road</td>
</tr>
<tr>
<td>Sunnyvale, CA 94089 U.S.A.</td>
<td>#01-01 Citilink Warehouse Complex</td>
</tr>
<tr>
<td>Tel: (1-408) 745-4900</td>
<td>Singapore 118529</td>
</tr>
<tr>
<td>Fax: (1-408) 745-4970</td>
<td>Tel: (65) 6375-8560</td>
</tr>
<tr>
<td>Email: <a href="mailto:components@us.fujitsu.com">components@us.fujitsu.com</a></td>
<td>Fax: (65) 6273-3021</td>
</tr>
<tr>
<td>Web: <a href="http://us.fujitsu.com/components/">http://us.fujitsu.com/components/</a></td>
<td>Email: <a href="mailto:fcal@fcal.fujitsu.com">fcal@fcal.fujitsu.com</a></td>
</tr>
<tr>
<td></td>
<td>Web: <a href="http://www.fujitsu.com/sg/services/micro/components/">http://www.fujitsu.com/sg/services/micro/components/</a></td>
</tr>
</tbody>
</table>

©2012 Fujitsu Components America, Inc. All rights reserved. All trademarks or registered trademarks are the property of their respective owners.

Fujitsu Components America or its affiliates do not warrant that the content of datasheets is error free. In a continuing effort to improve our products Fujitsu Components America, Inc. or its affiliates reserve the right to change specifications/datasheets without prior notice. Rev. April 17, 2012.