

Resistive Touch Screen Mounting Guidance

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Sales Promotion Dept

DocNo.DER-M0010G

***Refer to the suggested structure and mounting precautions in this document at mounting the touch screens. Appropriate structure differs according to touch screen size, LCD, chassis design, usage environment and so on. Please conduct the evaluation with actual products at the trial stage, and confirm that your structure is appropriate prior to fixing the structure design.**

① Suggested Touch Screen Mounting Structure

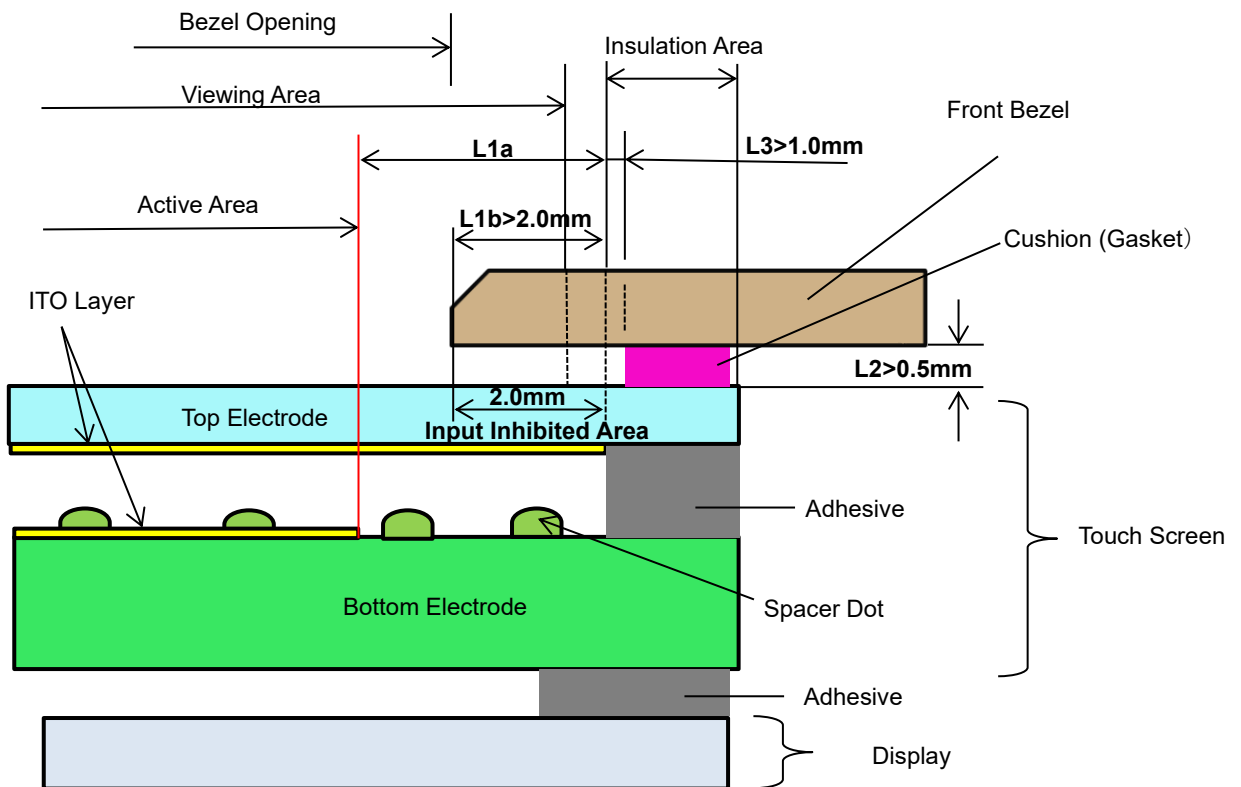


Fig.1

② Mounting Precautions

a. Bezel Edge (Fig.1&2)

Bezel edge is suggested to be positioned in the area between active area and insulation area (L1a). If the bezel edge overlaps the active area, it may cause a false input when the bezel is pressed.

Input Inhibited Area (refer to the section d.) is structurally weak against pressure. If the distance between active area and insulation area (L1a) is 2.0mm or longer, the bezel edge (L1b) is recommended to be longer than 2.0mm so that the Input Inhibited Area will be protected by the bezel.

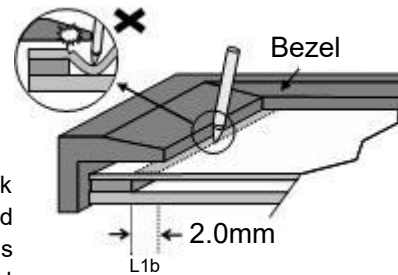


Fig.2

b. Gap between Bezel and Touch Screen (Fig.1&3)

A gap between bottom of the bezel and the touch screen surface (L2) needs to be longer than 0.5mm. Otherwise, the bezel edge may cause false input when the bezel is pressed.

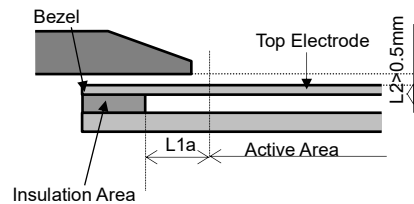


Fig.3

c. Area between Active Area and Insulation Area (Fig.1&3)

If the area between the active area and insulation area (L1a) is pressed, false input may be caused. Do not touch this area. (Fig.3)

d. Input Inhibited Area (Fig.1&4)

2.0mm from the edge of the insulation area toward the viewing area (Input Inhibited Area) is structurally weak against pressure., especially by a pen. If the top electrode is a film, and this area is touched by a pen, the film may get stretched and the touch screen gets broken, Do not touch on this area directly.

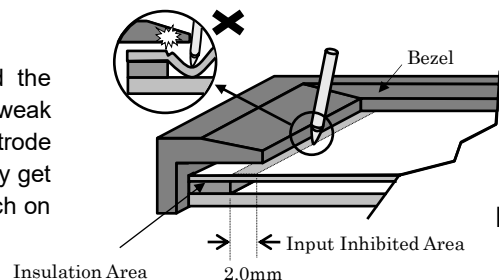


Fig.4

e. Cushion (Gasket) (Fig1&5)

If a cushion is used between the bezel and the touch screen surface, the cushion must be free enough to absorb the expansion and contraction difference between the bezel and the touch screen surface. If the cushion is squashed too hard, the expansion and contraction difference may cause the distortion to the touch screen surface.

The cushion must be positioned more than 1.0mm (L3) outward from an inside of the insulation area. (Refer to Fig.5 & the drawing)

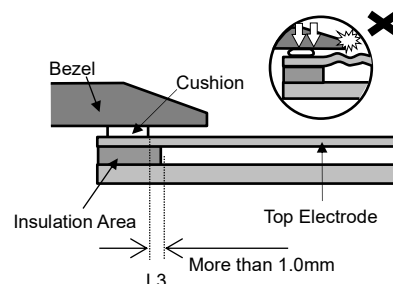


Fig.5

f. Tolerance (Fig.6)

There is a tolerance of 0.2 to 0.3mm for the dimensions of the touch screen and the FPC connector cable. A gap must be made to absorb the tolerance in the case and the connector.

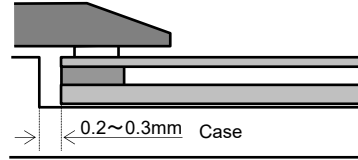


Fig.6

g. FPC Connector Cable (Fig.7)

The FPC connector cable must not be forcibly stressed or bent too hard to avoid the conduction in the insulated area and wire breaking.

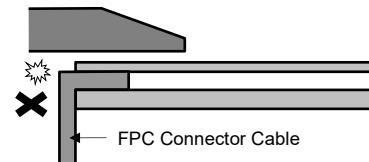


Fig.7

h. Mounting Touch Screen (Fig.8)

Touch screen must be held from the bottom, such as the structure gluing the touch screen onto the display. If the touch screen is glued to the bezel, the adhesion between the top and bottom electrode is stressed and may come off.

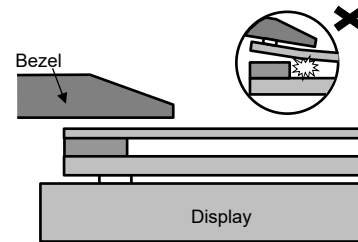


Fig.8

i. Air Vent (Fig.9)

Some touch screens have the air vent to equalize the inside air pressure to the outside one. The air vent must not be covered, and liquid contact must be avoided as the liquid may be absorbed if the liquid is accumulated near the air vent. The top electrode must not be swelled by the air pressure from inside of the case.

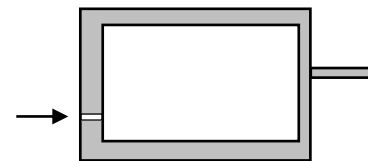


Fig.9