Metal Mesh structure Projected Capacitive Touch, Screen Mounting Guidance

Projected capacitive touch screen detects the touched locations by measuring the increased amount of the capacitance value between its electrodes. Once it is built into a system, capacitance couplings are continually yielded among the touchscreen, FPC tail, controller board and metal Chassis. If surrounding environment changes or materials to alter the electrical field (a large capacitor, power-supply unit, LCD panel, or materials with high dielectric constant) is near, these external factors will adversely affect the function of the touch screen to detect the correct input positions.

At structure design, please refer to the mounting guidance below and ensure enough gap distances among each component in order to avoid the external factors described above.

Fix the touch screen firmly so that the gap distances between the touchscreen and other components will not be affected by touching or will not change with the passage of time. An unexpected input may be caused if the gap is too narrow.

In case of using capacitive sensor outside, the moisture may cause the trouble.

In order to avoid the gap distance L1 from being changed with the passage of time, it is recommended to apply the adhesive tape onto all the 4 sides with no space (fully sealed) when gluing the touch screen.

**The distance values indicated in this sheet are for reference only.**
**The appropriate distance values depend on touch screen size, LCD, chassis design and other factors. Please confirm the appropriate distance with the actual products prior to fixing the chassis design.**

**Structure Example**

![Structure Diagram](image_url)

- **L1 ≥ 5mm**: Distance between LCD and FPC Tail
- **L3 ≥ 1mm**: Distance between LCD and FPC Tail
- **L5 ≥ 1mm**: Distance between FPC Tail and Chassis
Structure with Resin Bezel

In case of resin bezel, it is recommended that the bezel edge covers the wiring area.

Structure with Metal Bezel

In case of metal bezel, it is recommended that the bezel edge does not overlap the wiring area.