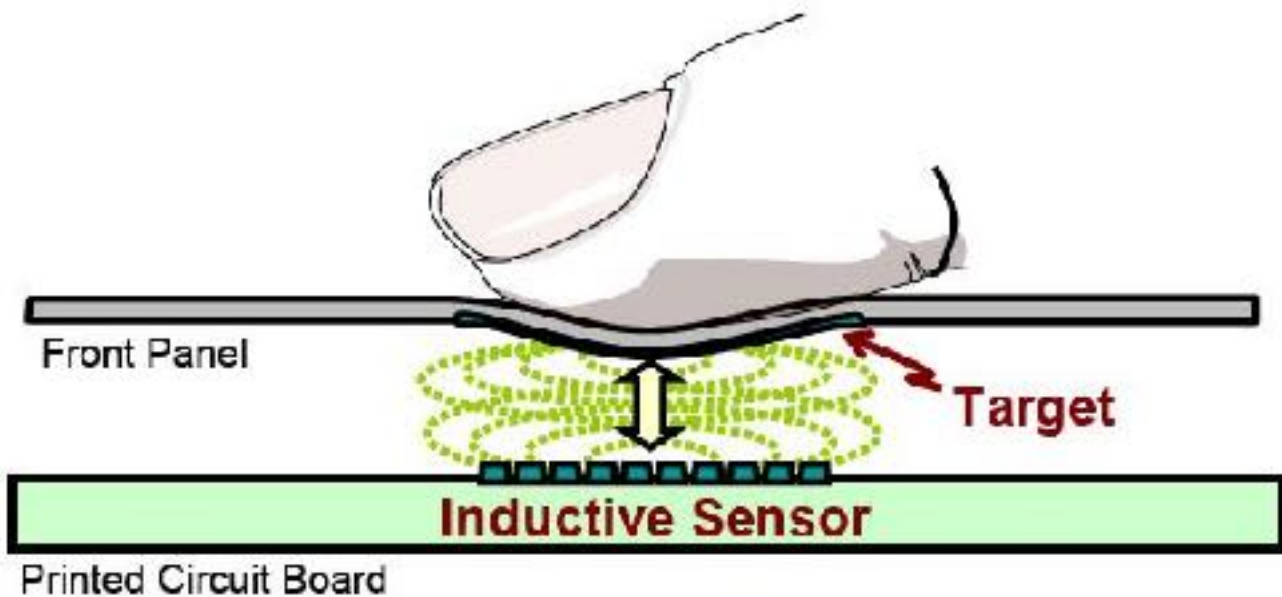


Inductive Touch - How Does It Work?

Inductive touch sensing solutions give designers the flexibility to choose the best touch technology for their application. Microchip inductive mTouch sensing solution is proprietary technology. It is available to customers free-of-charge under a license agreement permitting use and implementation of the technology on any PIC microcontroller or dsPIC digital signal controller.



How does Inductive Touch work?

The deflection caused by the user pressing the front panel, on the order of microns, is inductively detected. The fundamental principle of operation is that the impedance of an inductor varies when a nearby magnetically permeable or electrically conductive material moves relative to the inductor.

As no pressure is required for operation, it allows almost any material to be used for the front panel, like metal, aluminum, stainless steel, plastic or wood can be used. It can also sense through a thick glove. Additionally, the keys are unaffected by liquids or water droplets. It is also a Braille-friendly touch technology.

The construction of an inductive touch sensor system comprises of three main components: the fascia or front panel, the spacer layer and the PCB.