



# TOUCH OPTIONS DATA SHEET

## Touch Systems



**Resistive Touch:** Resistive technology generally uses a display overlay composed of layers, each with a conductive coating on the interior surface. Special separator “dots” are distributed evenly across the active area and separate the conductive interior layers. The pressure from using either a mechanical stylus or finger produces an internal electrical contact at the “action point” which supplies the controller with vertical and horizontal analog voltages for data input. Resistive technology offers tremendous versatility in that activation can be initiated by; a gloved hand, fingernail, mechanical stylus or an ungloved finger. Resistive touch screens can be gasket sealed for NEMA 4 and NEMA 4X environments. Limitations include: Low light output, diffused resolution images and the a plastic surface material can be scratched if improperly touched.



**Capacitive Touch:** Capacitive technology requires a “finger touch”. It will not operate with either a gloved hand or with a mechanical stylus. It is made of glass, which makes it extremely durable and scratch resistant. This glass overlay has a coating that stores the charge deposited over its surface electrically. Capacitive touch screens operate using oscillator circuits that are located in each corner of the glass overlay and measure the capacitance of the area being “touched”. Depending on where the person touches the overlay, the oscillators will vary in frequency. Then a touch screen controller measures the frequency variations to ascertain the coordinates of the person’s touch. When used with flat panel displays, capacitive offers drift-free stable performance that is not susceptible to deterioration over time. A capacitive touch screen is impervious to grease, dirt and water, which makes it ideal for frequent use. It can also be gasket sealed for NEMA 4 and NEMA 4X operation. Since a capacitive touch screen is made of glass, it is susceptible to breakage. DIT offers Sizes up to 32” diagonal.



**Infrared Touch (IR):** Infrared technology uses infrared emitter-collector pairs to project an invisible grid of light a small distance over the surface of the screen. When a beam is interrupted, the absence of the signal at the collector is detected and converted to an X/Y touch coordinate. Infrared based design offers superb image clarity. The original image quality is preserved because there is no film in front of the display. The screen can be operated with either a finger, with or without glove or a pen. Infrared technology can scale in size up to 150” in diagonal. Features like no drift, scratch proof, water proof, dust proof, sunlight operability present IR (Infrared) touch screen an ideal choice for our Digital Signage applications.

## Touch Interfaces



Serial is the standard that has been around from the beginning of computing. It is a well accepted and trusted interface.



USB is an interface that has overtaken and retired most other interfaces. It is highly universal between PC, Mac, Sun, Unix and More.



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