



Known for innovative technology and products, 3M Touch Systems has leveraged decades of capacitive technology experience to create the MicroTouch™ SCT3250EX Capacitive touchscreens (formerly called ClearTek™ II Capacitive Touch System). MicroTouch Capacitive sensors have enhanced light transmission, with a very fast response to even the most gentle of touches.

MicroTouch SCT3250EX sensors, combined with the solid foundation of MicroTouch™ EX II controllers offer high endurance solutions for a multitude of touch applications where exceptional performance, vibrant optics and environmental robustness is mission-critical, 24/7.

Available in sizes from 6.4" to 32"

## Product Highlights

- Enhanced light transmission of 91.5% (+/-1.5%), the highest of any touch screen with anti-glare
- Speed - MicroTouch SCT3250EX touch screens have the worlds fastest response time .
- Gentle Touch - touchscreen works even with a very light touch, with a contact time of only 5.4ms
- Durability - MicroTouch screens have been tested to withstand over 225 million touches
- Accuracy - Reported touch coordinates are within 1.0% of true position
- Performance unaffected by everyday contaminants in the environment.

One of 3M Touch Systems core capabilities are the coatings used to create MicroTouch ClearTek touch sensors. These coatings provide surface durability, anti-glare optics, and scratch resistance.

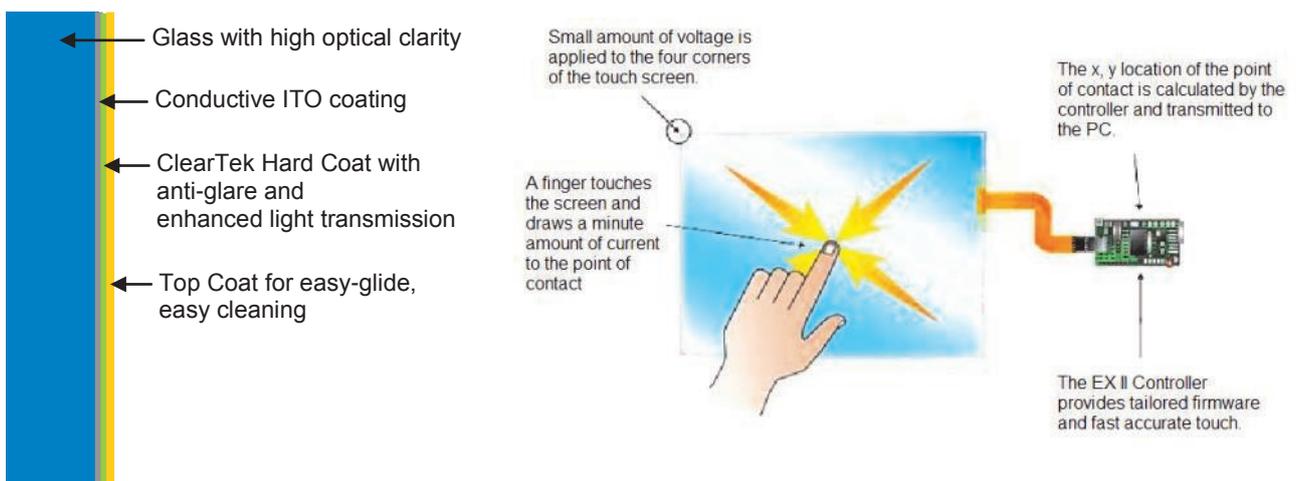
**Hard Coat** - The 3M MicroTouch ClearTek hard coat was formulated by 3M Touch Systems chemical engineers and is chemically bonded to the touch sensor's glass substrate to provide premium protection of the conductive coating. The ClearTek coat also provides anti-glare characteristics and enhances the light transmission value to 91.5%

**Top Coat** - 3M Touch Systems applies a top coat to each ClearTek II touch sensor that fills in the relatively rough surface of the glass substrate. By reducing the surface energy of the touch surface, this top coat makes the surface easier to clean, minimizes contaminants adhering to the surface; liquids tend to bead up and flow easier off the screen

## Touch Screen Construction and Working

Capacitive touch screens are flat glass substrates coated with a transparent metal oxide, protected by coatings. A voltage is applied to the corners of the overlay creating a minute uniform electric field. A bare finger draws current from each corner of the electric field, creating a voltage drop that is measured to determine touch location.

3M coatings provide enhanced light transmission, anti-glare properties and easy-clean



## Touch Screen Specifications

Technology	3M MicroTouch ClearTek Capacitive with protective overcoat
Touch Screen Construction	Conductive coating on glass with ClearTek hard coat and top coat
Glass Thickness	3.18mm
Input Method	Finger input
Minimum Contact Requirement	Only 5.4 milliseconds
Accuracy	Within 1% of true position
Touch Resolution	16K x 16K with EXII Controller
Light Transmission	91.5% ± 1.5% light transmission
Surface Finish	ClearTek hard coat enhances light transmission with anti-glare and easy glide.
Surface Scratch Hardness	Exceeds severe abrasion test per MIL C675C. Scratches by pick of Moh's hardness rating less than 7 do not affect performance. Will withstand 10,500 grams force per Balance Beam Scrape Adhesion Mar Tester.
Operating Temperature	-40 to 70 deg C for the touchscreen
Humidity	Upto 90% RH from 0 to 35 deg C, non-condensing
Surface Obstruction	Not affected by surface contaminants like dirt, dust, grease, liquids
Chemicals	Resistant to corrosives, as per ASTM D1308-02 & ASTM F-1598-95
NEMA	IP66 / NEMA sealable
Interface	USB or Serial
Cleaning	Wipe with damp cloth moistened with Water or isopropyl alcohol

## Some Touch Screen Applications

