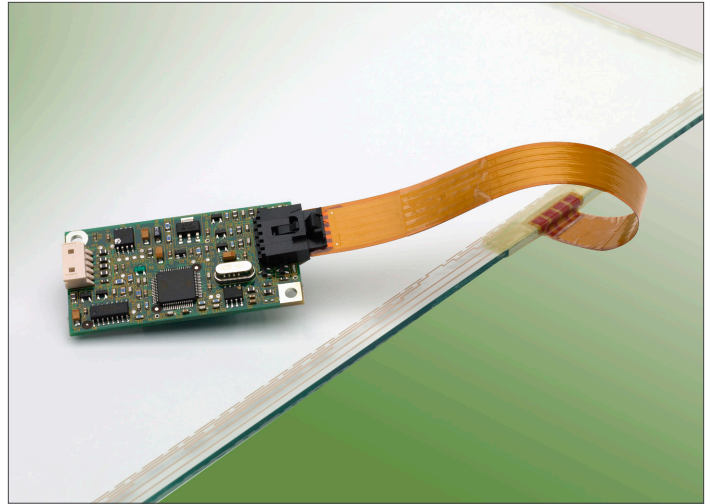# 3M™ MicroTouch™ System SCT3250EX

The Clear Solution for Demanding Touch Applications

3M Touch Systems has more than 25 years of surface capacitive technology expertise and specifically designed the 3M™ MicroTouch™ System SCT3250EX to meet the performance requirements of display applications ranging from 5.7 to 32 inches. As an all-glass design, the SCT3250EX touch system offers light transmission up to 11.5% better than typical resistive sensors and 3.5% better than typical surface capacitive sensors (based on published specifications).

With the combination of the 3M™ ClearTek™ proprietary hard coat and a scratch-resistant top coat, the 3M™ MicroTouch™ Sensor SCT3250 offers superior surface durability compared to typical resistive and surface capacitive solutions. This surface durability feature helps the SCT3250 touch sensor support heavy-use applications while maintaining its functional, optical and aesthetic characteristics.

In addition to the superior 3M™ MicroTouch™ SCT3250 touch sensor design, the 3M™ MicroTouch™ Controller EX with its dedicated custom ASIC sets the performance standard for capacitive sensing electronics and offers industry-leading ESD protection (based on published specifications). The EX controller's proprietary firmware and patented algorithms dynamically adapt to changes in the application's environment to help maintain the initial video alignment of the display for the life of the product. And, due to the dedicated ASIC, the SCT3250EX touch system has a "minimum touch duration" that is 50% faster than typical surface acoustic wave and surface capacitive solutions (based on published specifications).

With millions of 3M surface capacitive touch systems in use around the world, the SCT3250EX touch system continues to be a preferred touch solution for demanding applications, such as gaming and retail, that require 24/7 reliability.

Recommended Applications

- POS all-in-one devices
- Information kiosks
- Self-service systems
- Ticketing machines
- Gaming machines
- Amusement stations
- Industrial devices
- Healthcare displays

Feature	Benefit
All-Glass Solution with 3M ClearTek Hard Coat	• High light transmission provides superior display performance • Superior surface durability maintains optical and functional performance
EX Electronics	• High MTBF provides reliable system performance • High ESD performance to meeting industry requirements • Dedicated ASIC creates fast, accurate touch response
Scratch-resistant Top Coat	• Low surface energy resists surface scratching • Smooth surface for better drag and draw performance • Durable finish for easy-to-clean surface

MicroTouch™

3M

System Performance

Light Transmission	91.5% (±1.5%)
Input Method	Finger contact
Accuracy	>99% of true position
Resolution	1024 x 1024, but capable of 16K x16K when used with EX controllers
Linearization	Factory linearized
Tail Connection	Solder-less design

Electronics (3M MicroTouch Controller EX)

Communication	USB, Serial, USB HID Digitizer, Dual Mode (USB and Serial
Dimensions	1.30" x 2.55" x 0.45"
	33.0 x 65.0 x 11.4 mm
Operating Current	USB: 75 mA (typical)
	Serial: 85 mA (typical)
Sleep Current	< 500 uA
Power Connection	USB: 5Vdc ± 5% 75 mA
	Serial: 5-12Vdc ± 5% 85 mA
Connectors	5-pin locking AMP (Touch side) 5-pin Molex (COM side)
ESD	±8KV Contact, ±27KV Air
Point Speed (PPS)	200 pps
Minimum Touch Time	5.4 ms
MTBF	>700,000 hours

Reliability

Surface Obstructions	Withstands most surface contaminants
Chemical Resistance	ASTM-D-1308-02 and ASTM-F-1598-95
Liquid Resistance	Liquids on screen do not impede touch performance
Operating Temperature	-40° C to 70° C for the touch screen
Storage Temperature	-50°C and 85°C
Humidity	Up to 90% RH from 0º C to 35º C, non-condensing

Mechanical

Glass Thickness	0.125" (3.18 mm)
Display Size	Supported 5.7" (144.78 mm) to 32" (812.80 mm) (standard and wide formats)
Surface Scratch	Hardness MoHS 7 or higher to induce a functional failure
Scratch Resistance	3M™ ClearTek™ hard coat
Sealing	NEMA 4X / IP66, complete water-resistant seal compatible
Cleaning	Water, isopropyl alcohol, or similar non-abrasive cleaners
RoHS Directive Compliant	Yes

System Warranty

5 years on touch system

Unlimited touch warranty

Operating Systems Supported

Windows 7 (32-and 64-bit)*

Windows Vista (32-and 64-bit)

Windows XP (32-and 64-bit)

Windows 2000, Server 2003, Server 2008 (32-and 64-bit)

Windows 98, 95, ME, NT 4.0, NT 3.5, 3.1x (32-bit)

Windows CE, XPe, WePOS (32-bit)

Linux Kernel 2.6, Kernel 2.4 (serial only)**

Apple OSX (UPDD driver)**

* 3M MicroTouch System SCT3250EX HID is Windows 7 Logo Compatible

** Limited MT7 features supported