# 3M<sup>™</sup> MicroTouch<sup>™</sup> System SCT7650EX

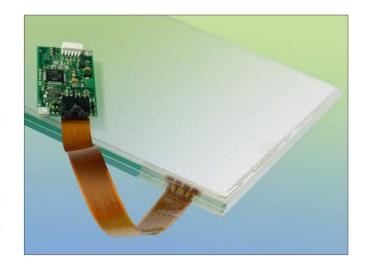
## Rugged Solution for Impact Strength and User Safety

The 3M MicroTouch System SCT7650EX is a rugged version of 3M's industry-leading surface capacitive system, the 3M<sup>™</sup> MicroTouch<sup>™</sup> System SCT3250EX, which is created by laminating 4mm backer glass with optically-clear adhesive to a 3M<sup>™</sup> MicroTouch<sup>™</sup> Sensor SCT7650. This robust laminated sensor, for applications ranging from 10 to 32 inches, is specifically designed to withstand heavy abuse in vandal-prone environments while providing excellent light transmission.

This sensor's optimized design offers 86.5% light transmission for brighter, crisper display images (compared to 81% for typical rugged surface capacitive sensors), while providing superior impact resistance by exceeding the UL 60950-1 certification (500 gram steel ball dropped from 1.3 meter height). In the event of a sensor breaking by extraordinary impact, the laminated construction is designed to help protect the user from glass shards by holding the multi-layered sensor together.

The systems' sophisticated 3M<sup>™</sup> MicroTouch<sup>™</sup> Controller EX provides superior touch speed performance and industry-leading reliability. This controller is well known for its < 5.4 milliseconds response time and "intentional touch" capability, where false touches don't register if a user's finger hovers over the screen or from inadvertent screen contact with jewelry, clothing or other personal items.

With the widest operating- and storage-temperature range available, NEMA 4 / IP 66 sealing, and superior performance in the presence of surface contaminants and debris, the 3M MicroTouch System



#### **Recommended Applications**

- ATMs
- Unattended Kioks
- Point-of-Information
- Retail Self-Service
- Outdoor ATMs
- Outdoor Kiosks
- Taxi Seatback Access/Payment
- Vending Machines

SCT7650EX is ideal for unattended kiosks, outdoor ATMs, and highuse, environmentally-demanding applications, and provides flexibility for system designers requiring a robust touch system solution.

Feature	Benefit
Laminated Construction Sensor Design	<ul> <li>Exceeds industry-standard steel ball drop test for impact resistance making it ideal for unattended, vandal-prone environments</li> <li>Shatter-resistance construction offers user safety if the touch sensor is broken</li> </ul>
All-Glass Solution with 3M ClearTek Hard Coat 3M MicroTouch Controller EX Electronics	<ul> <li>Up to 5.5% higher light transmission than typical ruggedized surface capacitive solutions for superior display performance</li> <li>Superior surface durability maintains optical and functional performance over the life of the product</li> </ul>
	<ul> <li>Industry-leading touch response for up to 2X faster response time</li> <li>Proprietary ASIC minimizes component count and achieves higher MTBF</li> <li>Proven electronics with an extensive installed base assures continued high performance</li> </ul>
Scratch-resistant Top Coat	<ul> <li>Reduces surface energy for improved resistance to surface scratches</li> <li>Smooth surface allows for improved scroll performance</li> <li>Durable finish provides excellent chemical resistance and an easy-to-clean surface</li> </ul>





### 3M™ MicroTouch™ System SCT7650EX Specifications

#### System Performance

 $\begin{array}{ll} \mbox{Light Transmission} & 86.5\% \ (\pm 2\%) \\ \mbox{Input Method} & \mbox{Finger input} \end{array}$ 

Accuracy >99% of true position

Resolution 16k x 16k (maximum resolution)

Linearization Factory linearized
Tail Connection Solder-less design

#### Electronics (3M MicroTouch Controller EX)

Communication USB and Serial

Dimensions 1.3" (33.02 mm) x 2.4" (60.96 mm) REF

Operating Current 75 mA (typical)
Sleep Current < 500 uA

Power Connection USB BUS (5V) or 5V/12V Serial

Connectors 5-pin AMP (Touch side)

5-pin or 7-pin Molex (COM side)

ESD ±8KV Contact, ±30KV Air

Point Speed (PPS) 200 pps (typical)

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

Impact Resistance Steel ball drop test UL 60950

Liquid Resistance Liquids on screen do not impede touch

performance

Operating Temperature  $-40^{\circ}$  C to  $70^{\circ}$  C Storage Temperature  $-50^{\circ}$  C to  $85^{\circ}$  C

Humidity Up to 90% RH from 0° C to 35° C,

non-condensing

#### Mechanical

Glass Thickness 0.298" (7.57 mm)

Display Size Supported 10.4" (264.16 mm) to 32" (812.8 mm)

(standard and wide formats)

Surface Scratch Hardness MoHS 7 or higher to induce a

functional failure

Scratch Resistance Proprietary top coat Sealing NEMA 4X / IP66

Gasketing Complete water-resistant seal compatible

Cleaning Water, isopropyl alcohol, or similar

non-abrasive cleaners

RoHS Directive compliant Yes

#### System Warranty

5 years

#### **3M Touch Systems**

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