

# 3M™ MicroTouch™ System SCT7650EX

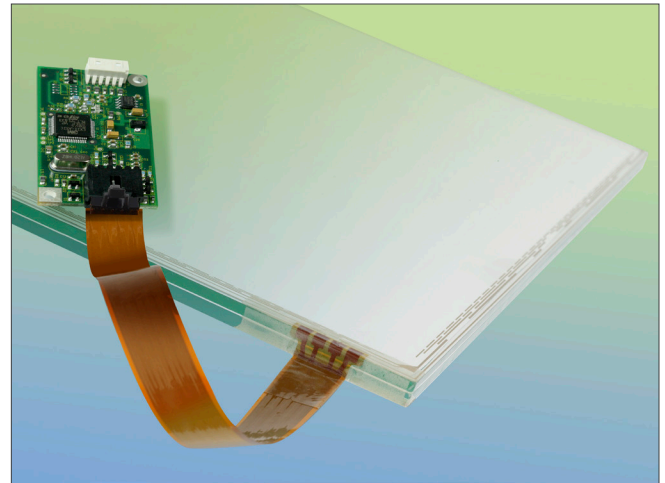
## Rugged Solution for Impact Strength and User Safety

The 3M MicroTouch System SCT7650EX is a rugged version of 3M's industry-leading surface capacitive system, the 3M™ MicroTouch™ System SCT3250EX, which is created by laminating 4mm backer glass with optically-clear adhesive to a 3M™ MicroTouch™ 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™ MicroTouch™ 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 Kiosks
- 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 high-use, environmentally-demanding applications, and provides flexibility for system designers requiring a robust touch system solution.

Feature	Benefit
Laminated Construction Sensor Design	<ul style="list-style-type: none"> <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	<ul style="list-style-type: none"> <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>
3M MicroTouch Controller EX Electronics	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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

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Light Transmission	86.5% (±2%)
Input Method	Finger input
Accuracy	>99% of true position
Resolution	16k x 16k (maximum resolution)
Linearization	Factory linearized
Tail Connection	Solder-less design

## Electronics (3M MicroTouch Controller EX)

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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

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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° C to 70° C
Storage Temperature	-50° C to 85° C
Humidity	Up to 90% RH from 0° C to 35° C, non-condensing

## Mechanical

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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

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5 years

### 3M Touch Systems

Subsidiary of 3M Company  
501 Griffin Brook Park Drive  
Methuen, MA 01844  
U.S.A.

1-888-659-1080

[www.3M.com/touch](http://www.3M.com/touch)

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### Наши контакты:

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331