

# 3M™ MicroTouch™ System SCT7650EX

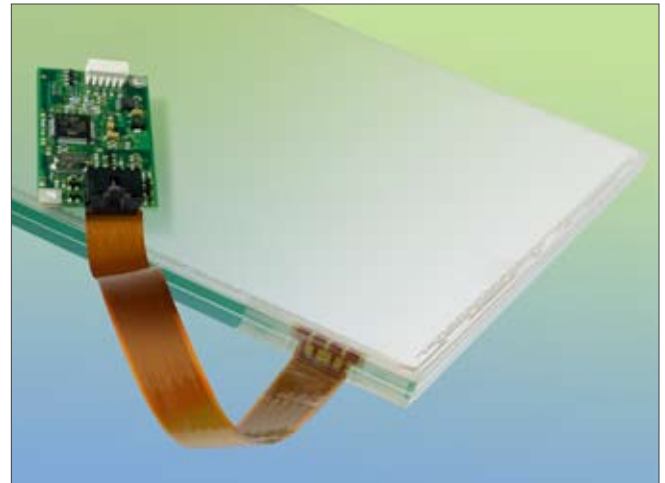
## Rugged Solution for Impact Strength and User Safety

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 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 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.



### Recommended Applications

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

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

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)

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° 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

Glass Thickness	0.298" (7.57 mm)
Display Size Supported	10.4" (264.16 mm) to 19" (482.60 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 of unlimited surface touches

## Standard Part Numbers

Display Size	USB Part Number	Serial Part Number
10.4"	98-0003-3134-2	98-0003-3133-4
12.1"	98-0003-3140-9	98-0003-3139-1
15.1"	98-0003-3173-0	98-0003-3172-2
17"	98-0003-3179-7	98-0003-3178-9
19"	98-0003-3185-4	98-0003-3184-7

## Part Numbers with 3M™ Vikuiti™ ALCF (privacy film)

Display Size	USB Part Number	Serial Part Number
10.4"	98-0003-3137-5	98-0003-3136-7
12.1"	98-0003-3170-6	98-0003-3142-5
15.1"	98-0003-3176-3	98-0003-3175-5
17"	98-0003-3182-1	98-0003-3181-3

### 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)

**RoHS Directive compliant:** In accordance with European Directive 2002/95/EC, "RoHS Directive compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M. (9/06)

**IMPORTANT NOTICE TO PURCHASER:** Specifications are subject to change without notice. These 3M Touch Systems' Products and software are warranted to meet their published specifications from the date of shipment and for the period stated in the specification. 3M Touch Systems makes no additional warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose. User is responsible for determining whether the 3M Touch Systems Products and software are fit for User's particular purpose and suitable for its method of production, including intellectual property liability for User's application. If the Product, software or software media is proven not to have met 3M Touch Systems' warranty, then 3M Touch Systems' sole obligation and User's and Purchaser's exclusive remedy, will be, at 3M Touch Systems' option, to repair or replace that Product quantity or software mediator to refund its purchase price. 3M Touch Systems has no obligation under 3M Touch Systems' warranty for any Product, software or software media that has been modified or damaged through misuse, accident, neglect, or subsequent manufacturing operations or assemblies by anyone other than 3M Touch Systems. 3M Touch Systems shall not be liable in any action against it in any way related to the Products or software for any loss or damages, whether non-specified direct, indirect, special, incidental or consequential (including downtime, loss of profits or goodwill) regardless of the legal theory asserted. (7/02)

