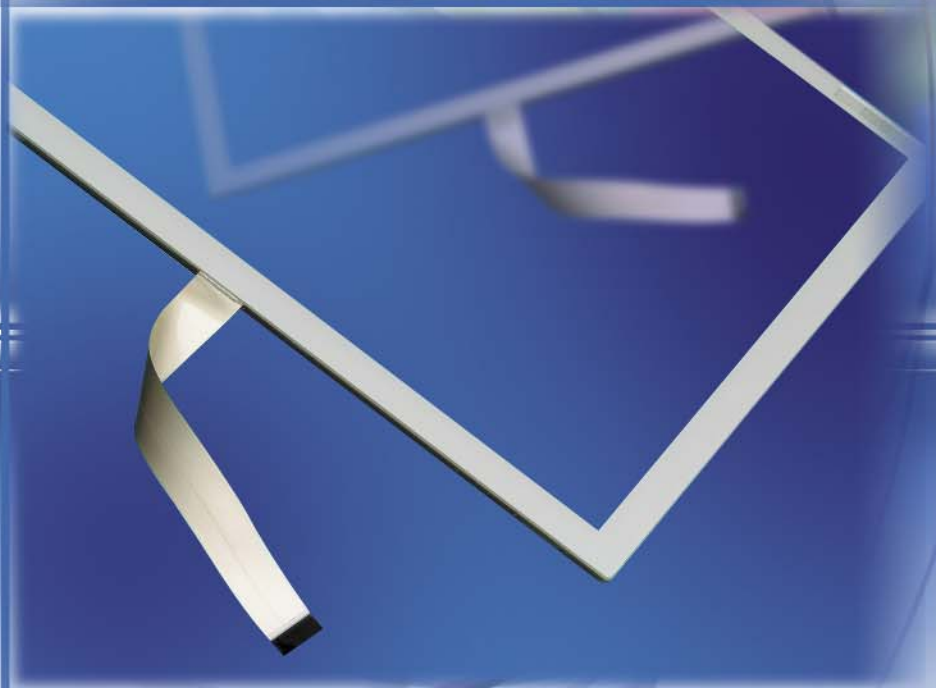**MicroTouch™**
**3M**

# Near Field Imaging Projected Capacitive
Touch Screen

SEALABLE

RUGGED

ACCURATE

## Product Highlights

- Laminated construction with strengthened glass offers resistance to high impact forces

- Up to 92% light transmission and as low as 6% low light reflection

- Excels in harsh environments by allowing for a NEMA 4X (IP 66) seal (when properly integrated) and certification for hazardous locations

- Functions with a variety of gloves through a range of contaminants

- Withstands significant shock and vibration in extreme environments

- Near Field Imaging with Solar Reflecting Film maximizes infrared reflection to help block out solar rays–helping components inside the enclosure from overheating, which can cause functional failures.

## High Performance in Extreme Environments

MicroTouch™ Near Field Imaging Touch Screens are ideally suited for harsh environments where performance is key and touch screen operation must be unaffected by surface damage caused by abrasives, chemicals, or contaminants commonly found in heavy industrial environments, such as factory automation, utilities and mining.

MicroTouch™ Near Field Imaging provides vandal-resistance while offering premium optical characteristics for a variety of applications. Whether you're designing ticketing kiosks, implementing a curbside check-in system, or placing an industrial device in high-ambient light conditions, Near Field Imaging with Solar Reflecting Film is an ideal solution for a multitude of extreme environments.

## Making the Difference

By incorporating 3M's exclusive Vikuiti™ Solar Reflecting Film with Near Field Imaging technology, 3M provides a unique solution to a common challenge–performance issues caused by heat build-up inside applications exposed to direct sunlight. The innovative combination of these two 3M technologies is another reason why 3M is a premier supplier of touch screen solutions.

# MicroTouch™ Near Field Imaging Projected Capacitive Touch Screen

## Electrical

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|---|---|
| **Accuracy** | Within +/- 1% in one direction and within +/- 2% in the other direction within the precision area (with bare finger input) |
| **ESD** | Exceeds +/- 8kV Air Discharge and +/- 4kV Contact Discharge |
| **Controller Options** | Serial RS-232 |

## Optical

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|---|---|
| **Transmission of Visible Light** | Up to 92% @ 550 nm |
| **Surface Finish** | Anti-glare finish |

## Mechanical

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|---|---|
| **Sizes** | Standard flat: 8.4" (213.3mm), 10.4" (264.1mm), 12.1" (307.3mm), 15.0" (381.0mm), 18.1" (459.7mm) |
| **Surface Hardness** | Glass front. Mohs hardness rating of 6.5. The touch screen will continue to operate with scratches on front surface |

## Environmental

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|---|---|
| **Vibration (Operating)** | 5-57 Hz, 0.015" (p-p), 58-2000 Hz, 2.5G |
| **Shock (Operating)** | 30G peak (pulse duration 11 +/- 1ms) |
| **Humidity** | Maximum 95% RH (non-condensing) up to 60 degrees C |
| **Operating Temperature** | -20°C to 70°C for touch screen, -0°C to 70°C controller |
| **Storage Temperature** | -40°C to 85°C for touch screen and controller |
| **NEMA Rating** | NFI touch screen will not prevent an application from achieving a NEMA 4X (IP66) seal, if integrated properly |

## Reliability

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|---|---|
| **Chemical Resistance** | Resistant to chemicals that do not affect soda lime glass |
| **Impact Resistance** | Meets UL/CSA 60950 and CSA Ball Drop Test ball drop test; (0.5kg, 50mm diameter, ball drop from height of 1.3m) |
| **Warranty** | One year |

### Near Field Imaging with Vikuiti™ Solar Reflecting Film

| | |
|---|---|
| **Transmission of Visible Light *** | 89% @ 550nm |
| **Reflection of Infrared Light *** | 71% @ 1085nm |
| **Sizes** | 10.4" (264.1mm), 12.1" (307.3mm), 15.0" (381.0mm) |

*\* The values shown are averages and have a tolerance of +/- 2%*