

# Optical Touchscreen Technology

For Interactive Digital Signage (IDS) Displays

**TE optical touchscreen technology uses multiple optical sensors to detect the touch point**, which registers the touch just before physical contact with the screen. This means that users can apply zero or light touch to the screen to initiate a response, and any input device, such as a finger, gloved finger, pen, or stylus will work.

Just like TE IntelliTouch surface acoustic wave touchscreen technology, surface coating overlays are not used on the touch screen surface, which creates a crystal clear image. In addition, scratches on the touch surface will not affect the touch screen operation. This is important for high-use public environments such as lobbies, way-finding or kiosks.

Optical touchscreens are available in the Elo TouchSystems interactive digital signage (IDS) display family on the 4200L, 4600L, and 5500L models.

## Benefits

- Delivers a true multi-touch (recognizing up to four independent touch points with Windows 7 operating system), multi-user interactive experience.
- No pressure needed to activate touch response
- Greater than 90% transparency and true color fidelity

- Stable, no-drift performance—no calibration required
- Recognizes touch from virtually any object and scratches do not affect the touchscreen operation
- USB HID device compatible with different operating systems

## Applications

- Interactive digital signage
- Retail and shopping malls
- Way-finding
- Hotels and casinos
- Healthcare and medical institutions
- Corporate environments
- Kiosks and self-service systems

## Touch Products

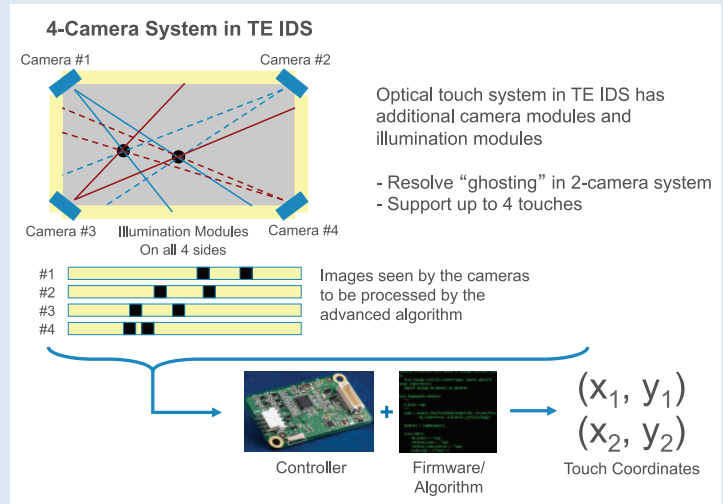
- Available only in Elo TouchSystems 4200L 4600L 5500L interactive digital signage displays



## How It Works

The Elo IDS monitors with optical touchscreen technology utilizes 4 optical sensors. This four sensor system can easily resolve two touch point requirements and can be extended to track a minimum of four touches\* with extreme accuracy. Sophisticated algorithms can uniquely determine the absolute position of multiple objects despite occlusion or object coalescence, enabling four touches with improved coverage and accuracy.

Optical touchscreens are available on the Elo TouchSystems 42", 46" and 55" IDS displays. This technology is scalable for large-format displays up to 55". As your requirements grow, you can utilize the same technology across the entire portfolio.



## Optical Touchscreen Technology Specifications

### MECHANICAL

Input Method	Finger, glove, and stylus
Available Sizes	42" - 55"

### ELECTRICAL

Positional Accuracy	3mm to 3.3mm (depends on the screen size)
Resolution	4096 x 4096 reported by controller to Host PC
Touch Activation Force	No pressure required

### OPTICAL

Light Transmission	90% typical
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### ENVIRONMENTAL

Operating Temperature	32°F to 155°F (0°C to 55°C)
Storage Temperature	14°F to 158°F (-10°C to 70°C)
Operating Relative Humidity	20% to 80% relative humidity, noncondensing
Storage Relative Humidity	10% to 90% relative humidity, noncondensing
Operating Altitude	0 to 40,000ft (0 to 12,192m)
Operating Altitude	0 to 40,000ft (0 to 12,192m)
Sealability	Sealable (with bezel) to IP65 levels

### DURABILITY

Surface Hardness Rating	40-55MPa
Expected Life	No known wear-out mechanism from touch

### OTHER FEATURES

Agency Approvals	Not applicable
Warranty	Not applicable

\*Note: No limitation for 3 touches or less, and limitation in the center and corners for 4 touches. In general, two people can perform two-finger gestures such as rotate and zoom at the same time (depending upon software capability).

To find out more about Elo's extensive range of touch solutions, go to [www.elotouch.com](http://www.elotouch.com), or call the office nearest you.

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