

## Optical Touchscreen Technology

For Interactive Digital Signage (IDS) Displays

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 Elo IntelliTouch surface acoustic wave touchscreen technology, surface coating overlays are not used on the touchscreen 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.

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 Touch Solutions 42", 46", 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.

### Benefits

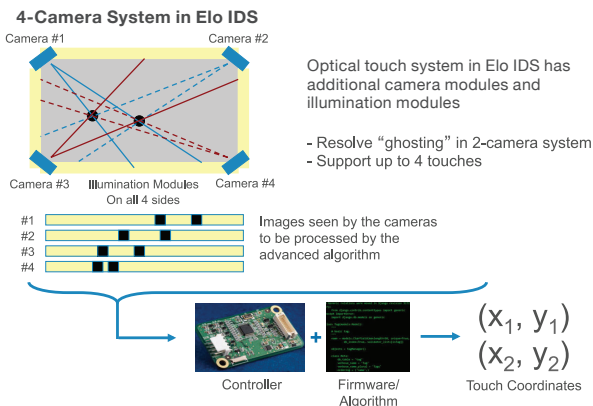
- Delivers a true multi-touch (recognizing up to four independent touch points with Windows 7 operating system), multiuser interactive experience.
- No pressure needed to activate touch response
- Greater than 90% transparency and true color fidelity
- Stable, no-drift performance—no calibration required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

### About Elo

Elo founders pioneered the touch screen over 40 years ago. Today, Elo Touch Solutions is a leading global supplier of touch-enabled technology, products and industry solutions. The Elo portfolio encompasses the broadest selection of OEM touchscreen components, touchmonitors, and all-in-one touchcomputers for the demanding requirements of diverse markets, including gaming machines, hospitality systems, industrial automation, interactive kiosks, healthcare, office equipment, point of sale terminals, retail displays, and transportation applications. The Elo touch experience has consistently stood for quality, reliability and innovation with over 20 million installations worldwide.



## 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
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)
Sealability	Sealable (with bezel) to IP65 levels
Durability	
Surface Hardness Rating	40–55MPa
Expected Life	No known wear-out mechanism from touch

\*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 our extensive range of Elo touch solutions, go to [www.elotouch.com](http://www.elotouch.com), or call the office nearest you.

### North America

Elo Touch Solutions  
1033 McCarthy Boulevard  
Milpitas, CA 95035

### 800-ELO-TOUCH

Tel +1 408 597 8000  
Fax +1 408 597 8001  
customerservice@elotouch.com

### Europe

Tel +32 (0)16 70 45 00  
Fax +32 (0)16 70 45 49  
elosales@elotouch.com

### Asia-Pacific

Tel +86 (21) 3329 1385  
Fax +86 (21) 3329 1400  
www.elotouch.com.cn

### Latin America

Tel 786-923-0251  
Fax 305-931-0124  
www.elotouch.com

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