

Acoustic Pulse Recognition (APR)

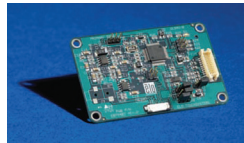
Combines the best of other touch technologies

Elo's Acoustic Pulse Recognition (APR) touchscreens use a completely new and unique way of sensing touches on a display. Consisting only of a glass overlay mounted in front of the display, together with a small electronic controller board, Elo's APR technology provides a new set of benefits that have only been partially achieved before by other touch technologies.

APR combines the ultimate in optical qualities, durability, and stability of surface wave (SAW) and infrared technologies, with the excellent dragging properties of capacitive, along with stylus, glove and fingernail activation, and low cost advantages of resistive technology. In addition, it is resistant to water and other contaminants on the screen, can be scaled from PDA to 42-inch displays, and provides palm rejection during signature capture.

As with many of the best inventions in history, APR works in a simple and elegant way—by recognizing the sound created when the glass is touched at a given position.

**7000
controller
board**



Benefits

- Optics and durability of pure glass
- Works with finger, glove, pen, credit card
- Resistant to water, dust, grease
- No wear-out mechanism
- Works even with scratches
- Excellent drag performance
- Sealable to NEMA 4/ IP 65 standards
- One time factory calibration, no drift
- Thin borders—only 5mm
- True flat surface
- Small and large sizes
- Palm rejection for signature capture

Applications

- Restaurant and hospitality automation
- Retail Point-of-Sale (POS) terminals
- Pharmacy automation
- Industrial automation
- Office automation

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.

Acoustic Pulse Recognition Specifications

Mechanical	
Input Method	Finger, finger nail, gloved hand, or stylus activation
Electrical	
Positional Accuracy	1% max. error
Resolution Accuracy	Touchpoint density is based on controller resolution of 4096 x 4096
Touch Activation Force	Typically 2 to 3 ounces (55 to 85 grams)
Controller	Board: USB
Optical	
Light Transmission	92% ± 2%
Environmental	
Temperature	Operating: -20°C to 60°C; Storage: -40°C to 71°C
Relative Humidity	Operating: 90% RH at max 50°C for 240 hours, noncondensing
Altitude	Operating: 10,000 ft (3,048m); Storage/transport: 50,000 ft (15,240m)
Chemical Resistance	The touch activation area of the touchscreen is resistant to chemicals that do not affect glass such as: acetone, toluene, methyl ethyl ketone, isopropyl alcohol, methyl alcohol, ethyl acetate, ammonia-based glass cleaners, gasoline, kerosene, vinegar
Electrostatic Protection	Per EN 61000-4-2, 1995: Meets Level 4 (15kV air/8kV contact discharges)
Agency Approvals	UL, cUL, TÜV, CE, FCC Class A
Sealability	Can be sealed to meet NEMA 4 and 12 and IP 65 standards
Durability	
Surface Durability	Over 50 million touches in one location
Expected Life	Touchscreen: 2 year limited warranty Controller: 2 year limited warranty
Impact Resistance	Compatible with UL-60950 and CSA 22.2 No. 60950 ball drop test (0.5 kg, 50 mm diameter ball dropped from height of 1.3 m) depending on the base glass design selected
Warranty	Touchscreen: 10-year limited warranty; Controller: 5-year limited warranty

To find out more about our extensive range of Elo touch solutions, go to www.elotouch.com, or call the office nearest you.

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