

# Acoustic Pulse Recognition (APR)

Combines the best of other touch technologies



## Applications

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

**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.

Elo TouchSystems, the global leader in resistive and acoustic touch technology for more than 30 years, is initially launching APR technology directed at the POS market.

## 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

## Acoustic Pulse Recognition Specifications

### MECHANICAL

Input method	Finger, finger nail, gloved hand, or stylus activation
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### 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 1.1

### OPTICAL

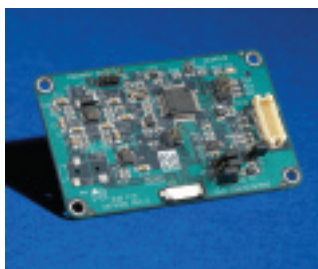
Light transmission	90%+/-5%
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### ENVIRONMENTAL

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 (3,048 m) Storage/transport: 50,000 ft (15,240 m)
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 6100-4-2, 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	Surface durability is that of glass, Mohs' hardness rating of 7
Expected life	No known wear-out mechanism, as there are no layers, coatings, or moving parts. APR technology has been operationally tested to more than 50 million touches in one location without failure, using a stylus similar to a finger.
Impact resistance	Can meet 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)
Warranty	Touchscreen: 10-year limited warranty Controller: 5-year limited warranty



7000 USB controller board

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

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