



Innovative
Solutions in Touch Screen Technology

Surface Acoustic Wave (SAW) Touch Screens

Key Features

- ◆ Optimal image clarity and light transmission
- ◆ Scratch-resistant glass surface
- ◆ Multi-platform driver support
- ◆ Optional AG or AR finish
- ◆ Over 50 million touches
- ◆ Robust tail attachment with dual cable restraints
- ◆ Foam mounting strips included
- ◆ Hardness >6 Mohs
- ◆ Activation with finger, light glove or stylus
- ◆ Wide aspect ratio available
- ◆ Custom designs

An ideal alternative to ELO Intellitouch Sensors. We carry a wide range of sizes and configurations with low MOQ and reasonable lead times... call us to see what we have in stock!



A D Metro offers a complete line of Surface Acoustic Wave (SAW) touch screens kits. SAW offers an excellent alternative for many touch applications requiring an accurate light touch and excellent optical characteristics all in a very durable and reliable package.

This glass sensor is ideal for indoor applications providing superior image clarity and sensor durability.

Compared to Resistive and Capacitive technologies, SAW technology provides superior image clarity, resolution, and higher light transmission. The panel is composed of durable glass and this augments the durability and clarity of the technology. SAW technology uses ultrasonic waves that pass over the surface of touchscreen panel. When the panel is touched, a portion of the wave is absorbed. This change in the ultrasonic waves registers the position of the touch event and sends this information to the controller for processing.

In a controlled environment, SAW offers a very attractive, simple to implement, and cost effective solution.

Surface Acoustic Wave technology is recommended for any indoor or controlled environment such as ATMs, public information or ticketing kiosks, banking and financial applications, gaming machines, computer based training, or other high-traffic indoor environments.



There are factors to take into consideration when considering Surface Acoustic Wave technology. The touch screen must be touched by finger, gloved hand, or soft-tip stylus (something with a hard surface such as pen will not work). Another factor to keep in mind is the touchscreen is not completely sealable, therefore it can be affected by large amounts of dirt, dust, and/or water in the environment.

Controller Information

Sensor kits

Each SAW kit includes a sensor and a matching combination controller board for use with either a RS232 or USB cable. This controller board provides the optimal performance for your sensor. It offers superior touch sensitivity, accuracy, and user-friendly operation. A D Metro surface acoustic wave touchscreens are best used with the inbox plug and play driver for Windows 7 or 8. For other OS, the use of Touch Kit software utilities and driver are recommended to maximize the potential of the sensor’s capability. The software allows you to perform a calibration, test your touch device’s functionality in Draw Test, modify options for edge compensation, and more.

Controller Specifications

Dimensions.....	84mm x 53mm
Power.....	D.C.+5V (80mA typical, 50mV P-P max ripple and noise)
Power dissipation.....	30mW
Operating current.....	75mA
Response time.....	Max 35s
Report rate.....	USB: 200 point/sec RS232: 133 point/sec
Touchpoint Resolution.....	2048 x 2048
Interface.....	USB: 2.0 compliant
	RS232: No parity, 8 data bits, 1 stop bit, 9600 baud (N,8,1,9600)
Operating temperature.....	-20°C to +60°C
Storage temperature.....	-20°C to +80°C
Relative humidity.....	95% at 60°C, non-condensing
Compliance.....	FCC-B, CE
OS	Windows 8, Linux, Mac, QNX

Product Information

Warranty (Limited).....	1 year
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Sensor Technical Specifications

Mechanical Specifications

Construction.....	5.7” to 24”
Substrate.....	3.0mm or 6.0mm
Input method.....	Finger, stylus, light glove
Activation force.....	Typically less than 80g
Surface hardness (glass)	> 6 Mohs
Sensor lifespan.....	>50 million touches
Fire/burn resistance.....	Open flame, sparks, cigarette burns
Chemical resistance.....	Any that do not attack glass
<i>Industrial chemicals: acetone, methylene chloride, methyl ethyl ketone, isopropyl alcohol, hexane, turpentine, gasoline, diesel fuel, motor oil, transmission fluid, antifreeze, etc.</i>	
<i>Food service chemicals : ammonia based glass cleaner, cleaners (Fantastic, Formula 409, etc.), coffee, grease, salt, etc.</i>	

Optical Specifications

Light transmission.....	Clear: 88% AG: 85% AR 92%
Surface finish.....	Clear, anti-reflective, anti-glare
Gloss of front glass.....	Anti-glare: 80 GU

Environmental Specifications

Operating temperature.....	-20°C to +50°C
Storage temperature.....	-40°C to +70°C
Relative humidity.....	90% at 40°C, 120hrs

Electrical Specifications

Linearity	within ±1% on most displays <2mm on sizes < 18.1”
Touchpoint Density.....	Nominal configuration is 5000 points/cm2 with controller in 2048 x 2048 mode. Can support 15,500 points/cm2 with controller in 4096x4096 using USB HID mode.
Operating voltage.....	4.75V—5.25V DC
Electrostatic protection (air).....	15kV discharges
Electrostatic protection (contact).....	8kV discharges



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Disclaimer: Technical specifications are provided for guidance and subject to change without notice. Specifications and performance may depend on sensor dimensions, selected options, installation and mounting. Please contact A D Metro for confirmation of the applicable specifications, individual sensor drawings, as well as installation and mounting best practices.

ABOUT US:

Established in 1988, A D Metro designs, manufactures and supplies innovative touch screen technology solutions for original equipment manufacturers (OEMs), system integrators and value added resellers. Everyday A D Metro’s products are touched by millions of people around the world. Our ULTRA product line is the most durable resistive touch screen sensor available on the market and our projected capacitive (PCAP) touch screen solutions simplify design and accelerate time to market.

Contact us, for more information on our innovative touch screen products, enhancements and custom manufacturing solutions.