

## ▶ TOUCH PANEL OVERVIEW

Epec Engineered Technologies offers a full range of high quality touch panel technologies and sizes designed to fit a wide range of applications and LCD sizes. Our product range consists of 4-wire, 5-wire, 8-wire and capacitive touch panels. As a full service touch screen provider, we offer controllers and drivers that have been designed and developed specifically for our touch panel products.

In addition to our standard products, Epec can also design and manufacture custom touch screens to meet your unique LCD size and application. Our touch panels are designed and manufactured to the highest standards. Manufacturing occurs in class 10,000 cleanrooms. Throughout the process strict assembly procedures are followed to ensure total and effective quality control. Prior to shipping each touch panel is 100% electrically tested and visually inspected.

Epec is committed to delivers touch panel products to a variety of industries including: Medical, Retail and Industrial. Applications range from mobile communications products, industrial controllers, kiosks and household appliances.

### Resistive product construction options are:

1. Film to Film
2. Film to Film to Substrate (PC, Acrylic)
3. Film to Glass

## ▶ BENEFITS

- Excellent optical performances
- FPC tail technology
- High readability
- Anti-glare and Anti-reflective coatings
- Long product life
- Touch accuracy

Epec offers a wide variety of touch solutions for all types of environments and applications. Our technical and sales staff can assist you in selecting the best touch panel technology for you.

## ▶ RESISTIVE TOUCH PANEL TECHNICAL SPECIFICATIONS

### Material:

ITO Glass Thickness: .7; 1.1; 1.8; 2.0; and 3.0mm

ITO Film Thickness: 0.188mm

Surface Hardness: 0-3H

Optical/Light Transmission: >80%

### Temperatures:

Operation Temperature: -20°C - 60°C

Storage Temperature: -20° - 70°C

### Life Expectance:

4-wire/5-wire: >10,000,000

8-wire: >1,000,000

### Electrical:

Operating Voltage: 5V

Operating Current: 5mA - 25mA

Insulation Impedance: >20M ohms (DC25V)

### Standard Size Range:

Standard 4-Wire Sizes 2.8" - 21"

Standard 5-Wire Sizes 5.8" - 21"

Standard 8-Wire Sizes 8.4" - 21"

## ▶ CAPACITIVE TOUCH PANEL TECHNOLOGY

Capacitive Touch Panels are an all-glass touch panels with a transparent metallic conductive coating. An electrode pattern printed along the edges which distributes a low voltage field over the conductive layer.

When a finger touches the panel and draws a minute amount of current to the point of contact, creating a voltage drop. The current flow from each corner is proportional to the distance to the touch point.

The X/Y location of the point of contact is calculated by the controller and transmitted to the computer.

### Capacitive Touch Benefits

1. Excellent optical properties with a transmittance greater than 90%.
2. Tempered glass with a scratch hardness of 6H.
3. FPC tail offers low resistance, flexibility and robustness.
4. High sensitivity, immediate response at the slightest touch.
5. Touch panels are extremely durable.  
Withstanding water, dust, harsh chemicals and grease.

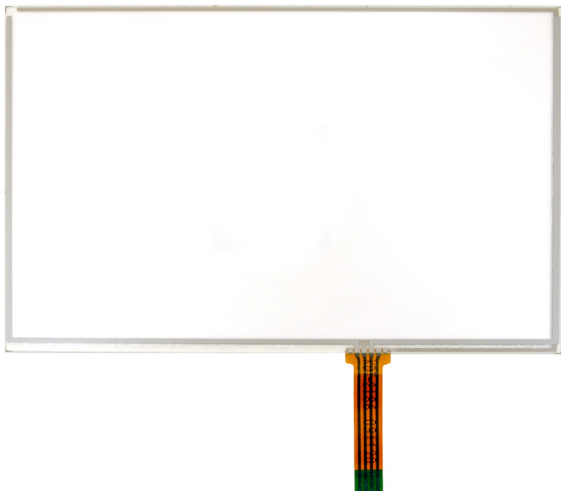


### Advantages

- Accurate Control: Less than +/-1.5% linearity deviation and controller with excellent speed.
- FPC Tail Technology: FPC tail has low resistance and is very flexible and robust.
- Durability: Our Capacitive touch screen withstand contaminants such as grease, dirt, water, running liquid, harsh chemicals.
- Performance: A transparent protective hard-coating minimizes reflection and maximizes light transmission. Hardened glass offers excellent scratch resistance and durability.

### Specifications

- Circuit: 5V DC35mA
- Light Transmission: > 90%
- Contact: <3ms
- Linearity: 1.5%
- Surface Hardness: 6H
- Input Mode: Conductive stylus or bare finger
- Life Expectancy: > 100 million
- Operating Temperature: 15 degree C to 70 degree C
- Storage Temperature: 50 degree C to 85 degree C



Epec's diverse and growing base of more than 2500 customers represents a wide range of markets including electronics, medical, industrial, communications, access controls, automotive, computing, military, and includes leading OEM's, contract manufacturers, and electronics manufacturing services (EMS) providers.

Contact us today, to experience why Epec has become one of the fastest growing Engineered Electronic Product providers in North America!

Toll-Free: 888-995-5171

Main: 508-995-5171

[www.epectec.com](http://www.epectec.com)