# **Transduction**

# Surface Acoustic Wave Touch Screen

# **TR-TOUCH-19SAW**



### Precise Bevel SAW Touch Screen for Industrial 19" LCD Monitors and Computers

The TR-TOUCH-19SAW is a surface acoustic wave touch screen where the waves are spread across the screen by bouncing off reflector arrays along the edges of the overlay and are detected by two "receivers". The acoustic wave weakens when the user touches the glass with their finger. The coordinates are then determined by the controller circuitry that measures the time at which the amplitude declines. It is the only technology that can produce a Z-coordinate axis response. It offers drift-free stable performance which is always precise.

- Use in industrial, process control, medical, military and nuclear applications
- Superior image, clarity, resolution and light transmission
- Drift-free stable performance of touch accuracy
- Good durability and scratch resistant with a solid glass display
- Long life expectancy; > 50,000,000 touches
- Can produce Z-coordinate axis response

# **IR-TOUCH-19SAW Drift-Free Beveled 19" Touch Screen**

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# Surface Acoustic Wave Touch Screen

# **TR-TOUCH-19SAW**

## **Specification**

### Model

 TR-TOUCH-19SAW 19" Beveled Surface Acoustic Wave Touch Screen

### Interface

• Serial (RS-232), USB

### **Structure**

- Glass only
- Glass Thickness: 4mm (0.157")

### **Sensor Size**

- 19 inch
- Active Area: 376.0mm (H) x 301.0mm (V) (14.80" x 11.85")
- Overall Area: 404.0mm (H) x 330.0mm (V) (15.91" x 12.99")
- Bevel Area: 380.0mm (H) x 305.0mm (V) (15.00" x 12.01")

### **Input Method**

Finger only

### **Positional Accuracy**

Standard deviation of error is less than 2mm (0.080")

### **Surface Hardness**

· Mohs hardness rating of 7

### Reliability

 Scratch-free; more than 50,000,000 touches in one location without failure

### **Touch Activation Force**

< < 85g

### **Light Transmission**

More than 90% as per ASTM

### **SAW Touch Controller**

- Voltage: 12V±0.5V/5V±0.5V
- Current: 100mA for 12VDC SAW controller
- Resolution: 4096 x 4096
- Response Time: 12ms
- Operating Temperature: -20 ~ 50°C (-13 ~ 122°F)
- Storage Temperature: -40 ~ 70°C (-40 ~ 158°F)

- Humidity: 10% ~90% relative humidity, non-condensing
- Multi-Point Touch: intelligent discrimination by software
- Agency Approvals: CE, FCC, RoHS

### **Chemical Resistance**

Active area of touch screen is resistant to chemicals that do not affect the glass - toluene, methyl ethyl ketone, isopropyl, alcohol, methyl alcohol, ethyl acetate, ammonia-based cleaners, gasoline, kerosene and vinegar

### **Agency Approval**

CE, FCC, RoHS

### **Operating Altitude**

3000m (9843ft)

### **Operating Temperature**

-20 ~ 50°C (-13 ~ 122°F)

### **Storage Temperature**

• -40 ~ 70°C (-40 ~ 158°F)

### Humidity

 10% ~ 90% relative humidity @ 40°C (104°F), non-condensing

### Compatible with Windows 9x/ME/2000/XP/2003/ VISTA/7 and LINUX