Transduction

Capacitive Glass Touch Screen

TR-TOUCH-15C

TR-TOUCH-15C Reliable Capacitive 15” Touch Screen

Anti-Glare Capacitive Touch Screen for Industrial 15” LCD Monitors and Computers

The TR-TOUCH-15C is an anti-glare capacitive touch screen that uses oscillator circuits located in each corner of the glass overlay and measures the capacitance of the area being touched. Depending where the overlay is touched, the oscillators will vary in frequency. The touch screen controller measures the frequency variations to confirm the coordinates of the person’s touch.

- Use in industrial, process control, medical, military and nuclear applications
- Slight touch can be detected as it reacts to small amount of static electricity
- Drift-free stable performance of touch accuracy
- Good durability and scratch resistant with a unique metal coating
- Long life expectancy; > 50,000,000 touches
- Impervious to dirt, grease, water and other contaminants
- Excellent light transmittance (AR coating)
- Easy integrationg with unique innovative design of a slim sensor border
- Can be gasket sealed for NEMA 4 environments

TRANSDUCTION 5155 Spectrum Way, Bldg 23, Mississauga, ON L4W 5A1
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www.transduction.com Email: sales@transduction.com

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Specification

Model
- TR-TOUCH-15C 15” Anti-Glare Capacitive Touch Screen

Interface
- Serial (RS-232), USB

Structure
- Glass only
- Glass Thickness: 2.9mm (0.114”)

Connector
- FFC (Flexible Flat Cable) tail
- 5-pin, Pitch: 2.54mm (0.10”), Length: 260mm (10.24”)

Sensor Size
- 15 inch
- Active Area: 304.1mm (H) x 228.1.0mm (V) (11.97” x 8.98”)
- Overall Area: 333.6mm (H) x 257.5mm (V) (13.13” x 10.14”)

Input Method
- Finger only

Surface Hardness
- Mohs pick with hardness rating of 4 or higher

Glass
- Normal type ITO coating glass

Surface Capacitive TSP Controller
- Circuit Board Dimensions: 62mm x 33mm (2.45” x 1.30”)
- Power Requirements: DC +5V external 5~12V unregulated power (maximum 65mA, typical 55mA, 50mV peak to peak maximum ripple and noise)
- Interface: Serial (RS-232), USB
- Protocol: RS-232 - no parity, 8 data bits, 1 stop bit, 4800~57600baud (N,8,1,4800~57600), USB - full speed, USB 2.0 compliant
- Resolution: 2048 x 2048
- Report Rate: adaptive sampling rate 180points/sec
- Attached Cable: RS-232 - 6’ shielded cable w/ 9-pin D-sub connector, USB - 6’ shielded cable w/ A type connector for USB Y converter cable
- Operating Temperature: -25 ~ 85ºC (-13 ~ 185ºF)
- Storage Temperature: -40 ~ 85ºC (-40 ~ 185ºF)
- Humidity: 95% @ 60ºC (140ºF)
- Regulatory Approvals: FCC-B, CE
- EMI: unaffected by environmental EMI

Hitting Test
- 1,000,000 times with electric silicon rubber R0.8
- Force: 250gf
- Speed: 2 times/sec

Drop Test
- No breakage, 227g (0.50 lbs)/38Φ steel ball dropped on touch panel supported w/ display module from 80cm (31.5”) height at 1 time

Light Transmittance
- 88% ±2% (550)

Contact Bounce
- Beginning of touch pulse shall not exceed 25msec.

Open Circuit Bounce
- Controller distinguishes resistance values less than 20k Ω to filter false or near touches

Positional Accuracy
- “X” Axis: ±1.5 ~ 2.5%
- “Y” Axis: ±1.5% ~ 2.5%

Resistance Between Leads
- Direction “X” & “Y”: max. 200Ω

Electro-static Discharge (ESD)
- Contact ±8KV, Air ±15KV

Operating Temperature
- -25 ~ 80ºC (-13 ~ 176ºF)
- Humidity: 20% ~ 80%, non-condensing

Storage Temperature
- -30 ~ 85ºC (-22 ~ 185ºF)
- Humidity: 20% ~ 80%, non-condensing

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Specification (Cont’d)

Resistance to Chemicals (Surface Hard Coating)

Test Method: ASTMD-F-1598-95

Property	Specification	Test Conditions
Hydrochloric Acid	6%	10 Min. 25°C (77°F)
Nitric Acid	70%	10 Min. 25°C (77°F)
Sulfuric Acid	40%	10 Min. 25°C (77°F)
Toluene		10 Min. 25°C (77°F)
Ethanol		10 Min. 25°C (77°F)
Xylene		10 Min. 25°C (77°F)
Acetone		10 Min. 25°C (77°F)
Methyl Ethyl Ketone		10 Min. 25°C (77°F)

Compatible with Windows NT/9x/ME/2000/XP/2003/ VISTA/7, DOS, QNX and LINUX

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