



**57-B-5-12**  
**Surface Capacitive Controller**  
Specification Guide

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## Document Revision History

Revision	Page	Content	Revised By	Date
1.1	4	Changes were made to the cable pinout.	Bhushan Viadya	8/27/2009

## Product Overview

57-B-5-12

The Touch International's CG II Surface Capacitive Controller is the new standard for customers seeking high performance but want to lower their system cost. This controller is designed to work with surface capacitive touch screens without a secondary conductive coating on the back - typically called an EMI shield. The controller uses an ESC7000 chip by EETI and currently supports RS-232 and USB communications.

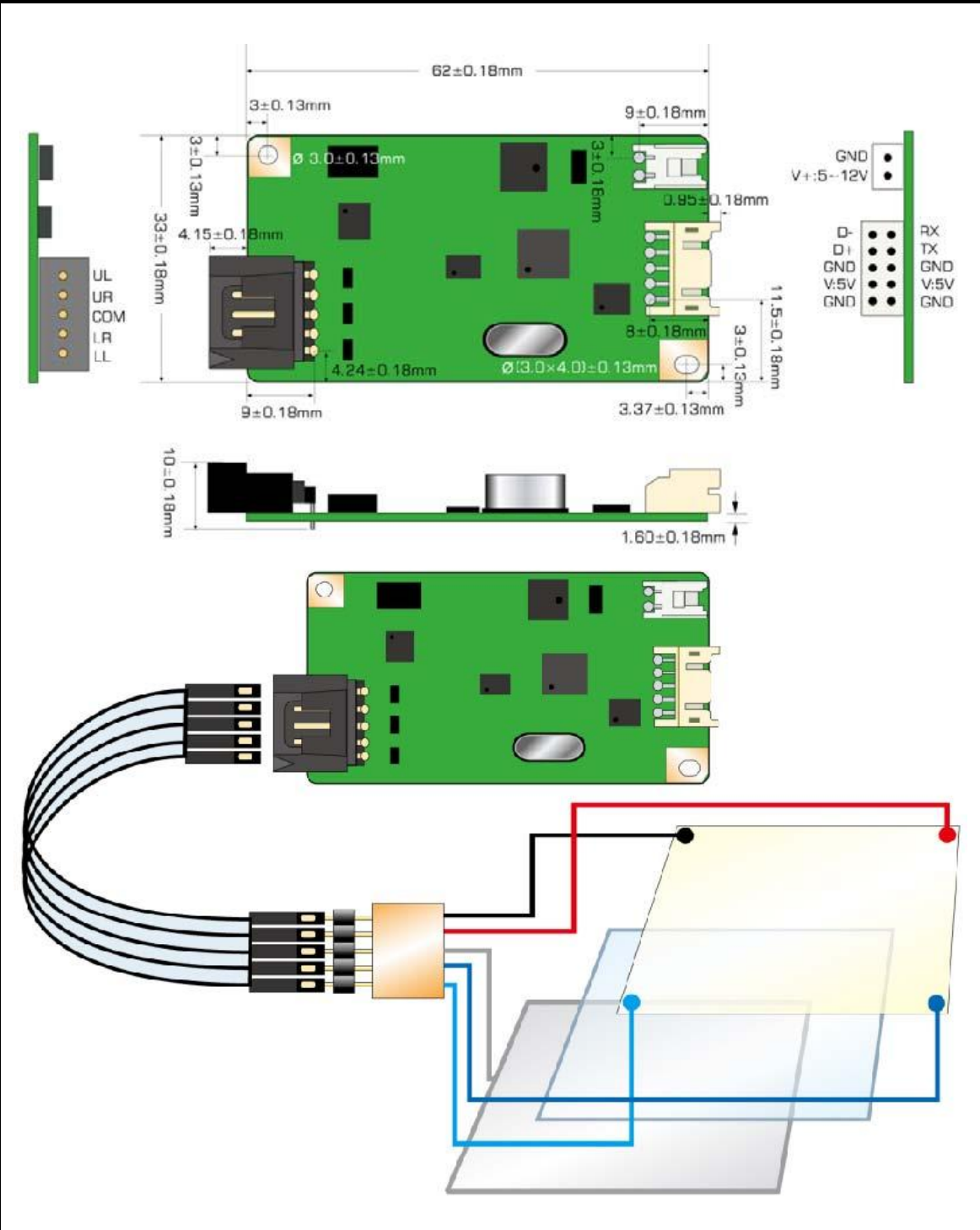
## Supported Operating Systems

OS	Version	Interfaces
<b>Windows</b>	Windows Vista, XP/2000, 9x/ME Windows CE 2.12/3.0/.net/5.0 Windows Embedded Windows XP Tablet PC edition	RS232/USB
<b>Windows</b>	Windows NT4	RS232
<b>Linux</b>	Mandrake (Mandrake 9.1/9.2/10, Mandriva 2005, Mandriva 2006), Red Hat (7.3/8.0/9.0), Fedora (Core I/II/III/IV/V), Yellow Dog (3.X) , SuSE (9.2/9.3/10/10.1), Ubuntu (5.1/6.06), Debian (3.1, Kernel 2.4.x/2.6.x)	RS232/USB (up to Kernel 2.6.x)
<b>DOS</b>	DOS	RS232
<b>Mac</b>	Mac OS, Mac OS X (IBM, Intel CPU)	USB
<b>QNX</b>	QNX RTOS v6.3	RS232

*\*Available but not supported at this time.*

The CGII Surface Capacitive Controller can emulate both 3M and Elo protocols using RS232 communication.

# Controller Drawings



## Specifications

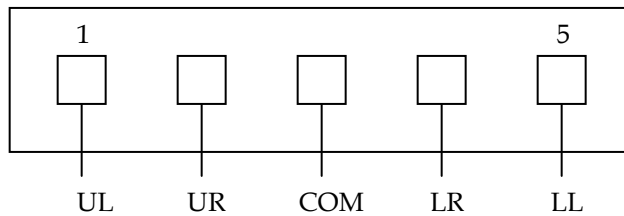
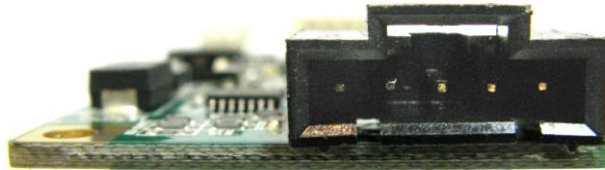
<b>Circuit Board Dimension</b>	62mm x 33mm (2.445" x 1.299")
<b>Power Requirements</b>	D.C. +5V, External 5~12V Unregulated power (Maximum 65mA, typical 55mA, 50mV Peak to Peak Maximum Ripple and Noise.)
<b>Operating Temperature</b>	-40°C to 85 °C
<b>Storage Temperature</b>	-40 °C to 90 °C
<b>Relative Humidity</b>	95% at 60 °C
<b>Interface</b>	Bi-Directional RS-232 Serial Communication USB: 2.0 Compliant
<b>Protocol</b>	RS232: No parity, 8 data bits, 1 stop bit, 9600 baud (N, 8, 1, 9600) No flow control. USB: Full Speed, USB 2.0 compliant
<b>Resolution</b>	2048x2048
<b>Report rate</b>	Adaptive Sampling Rate. Max. 180 Points/Sec
<b>Response time</b>	Max. 25 ms
<b>Attached Cable</b>	RS232: 6' shielded cable with 9-pin D-sub connector USB: 6' shielded cable with A type connector for USB Y converter cable.
<b>Regulatory Approvals</b>	FCC-B , CE
<b>Electro-Static Discharge (ESD)</b>	Contact ±8KV, Air ±27KV
<b>Circuit Board Dimension</b>	62mm x 33mm (2.445" x 1.299")
<b>MTBF</b>	200,000 hrs.

## Features

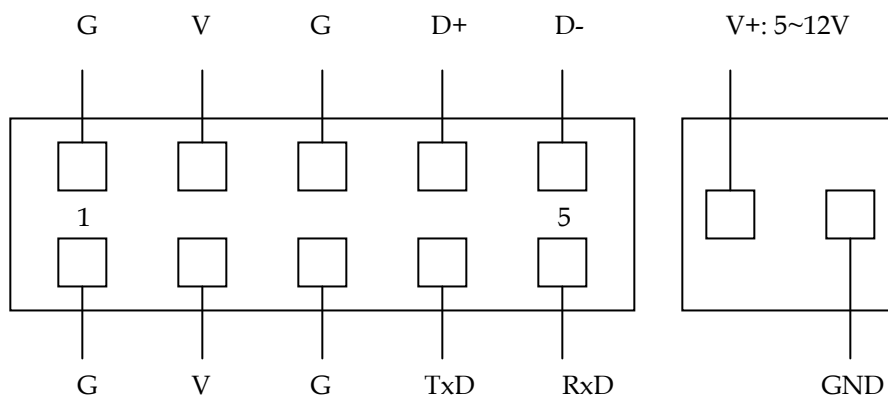
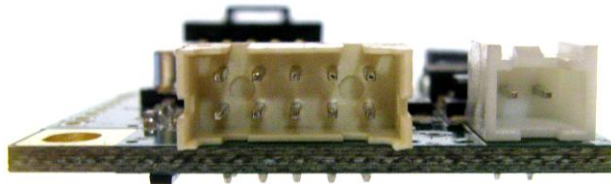
<b>Alignment</b>	Fast 4 Points Alignment
<b>Linearization</b>	9 or 25 Points Linearization
<b>Setting</b>	Support Multi-Controller and Dynamical Add/Remove.
<b>Languages Support</b>	Supports 11 languages in Windows.
<b>Mouse Emulation</b>	Right/Left buttons emulation
<b>HID Touch Digitizer</b>	Supports Vista HID Touch Digitizer
<b>Sound Feedback</b>	Beep on touch and/or release
<b>Double Click</b>	Configurable Speed and Range
<b>Monitor Support</b>	Monitor Rotation, Multiple Monitor and Split Display Supported
<b>Frequency</b>	Auto Frequency Control

## Pin Assignments

### Connector Pin Assignment



### Communication and Power Connectors



**NOTE:**

The 2-pin power connector option is for customers who cannot or do not want to bring power to the controller through any of the communication cables.

# Pin Assignments

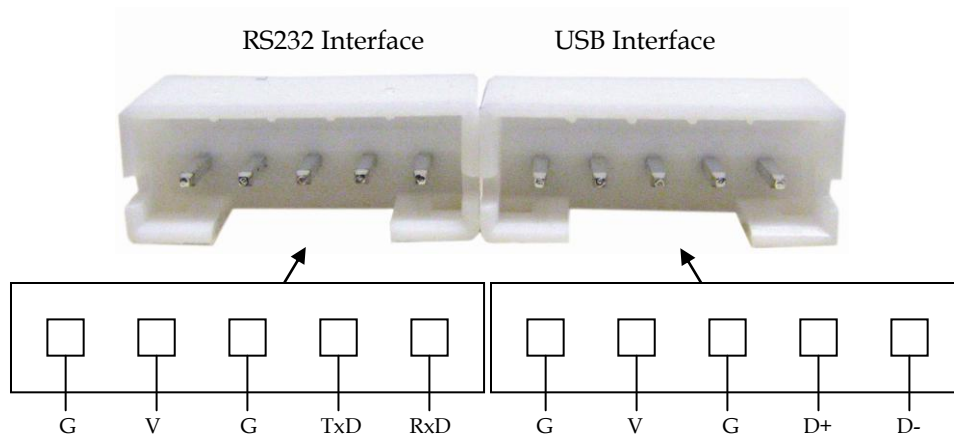
## Communication Cables

TI# 1300253 Y Converter Cable



RS232 Interface

USB Interface



Note: There is a special Y-Cable ( TI # 57-B-5-12 ) for dual interface which can be used when power cannot be provided thru the RS-232 or the USB cable.

This cable attaches to the 2x5 pins connector on the controller, and has the following connectors and terminals:

- USB P1: USB B Type Females
- P2: 5x2 Pin Connectors
- P3: DB9 Female
- RS232 P4: +5V Pin/Wire
- P5: GND Pin/Wire

## **KIT Includes**

<b>Part Number</b>	<b>Description</b>
<b>Surface Capacitive Controller (1)</b>	TI# 57-B-5-12
<b>Y Converter Cable (1)</b>	TI# 1300253
<b>RS232 or USB Cable (1)</b>	TI# 1300251 or TI# 1300252
<p><b>Contact TI sales representative for a complete list of TI's OEM and retail products.</b></p> <p>Touch International 2222 W. Rundberg Ln. Suite 200 Austin, TX 78758 Tel: 512.832.8292 Fax: 512.491.6381 technicalsupport@touchintl.com www.touchinternational.com</p>	