User's Manual

For ST6001S controller

Version 1.0

Table of Contents

Agency Approvals

The touch system including ST6001S controller, touchscreen and connection cable has certified with FCC Part 15 Class B.

The touch system including ST6001S controller, touchscreen and connector cable are compatible with EN55022 and EN55024 standard and certified with CE.

Features

ST6001S is the newest controller supplied by generaltouch.

- 6.6/10.4ms conversion time
- Support size of touchscreens from 6.4' to 22' without jumper setting
- touch sensitivity can be adjusted in 5 levels
- T mode and C mode data transmit Protocols
- Operation temperature from -20°C to 70°C

Physical Characteristics

Construction

- Multi-layer surface-mount design with internal ground plane for EMI suppression

-Dimensions

Total Width: 55 mm

Total Length: 99 mm

Total height: 10.8mm (Including connectors)

.
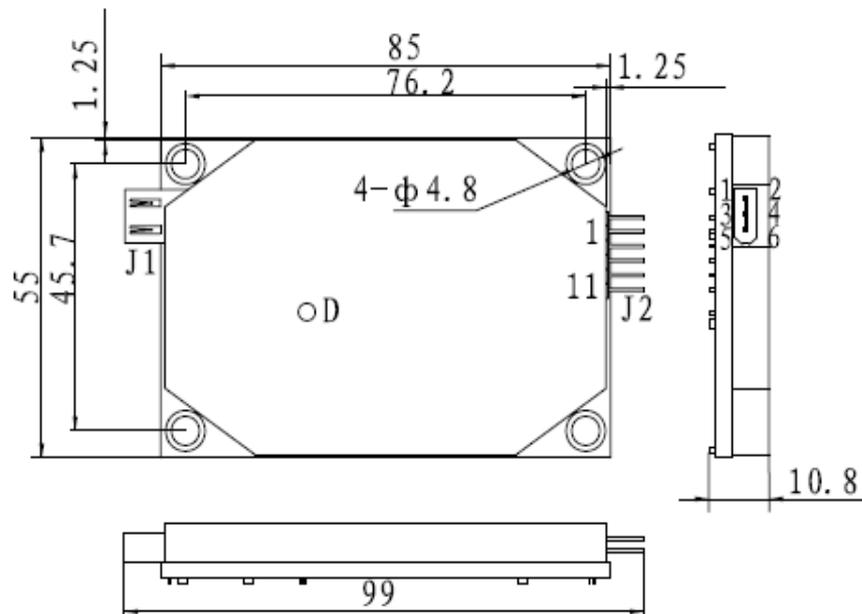
Top and side view
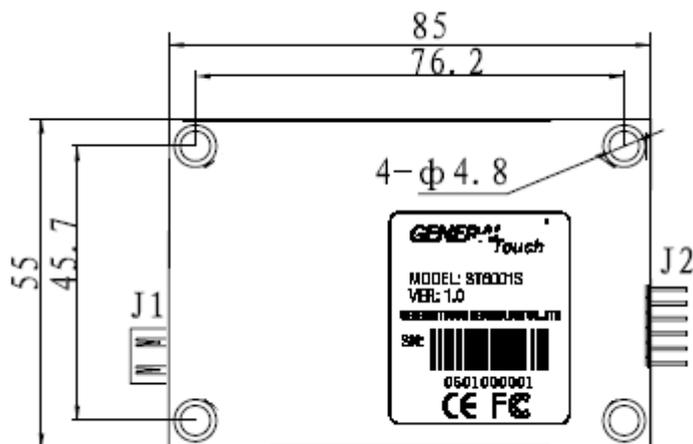
Bottom view

Connector and cable
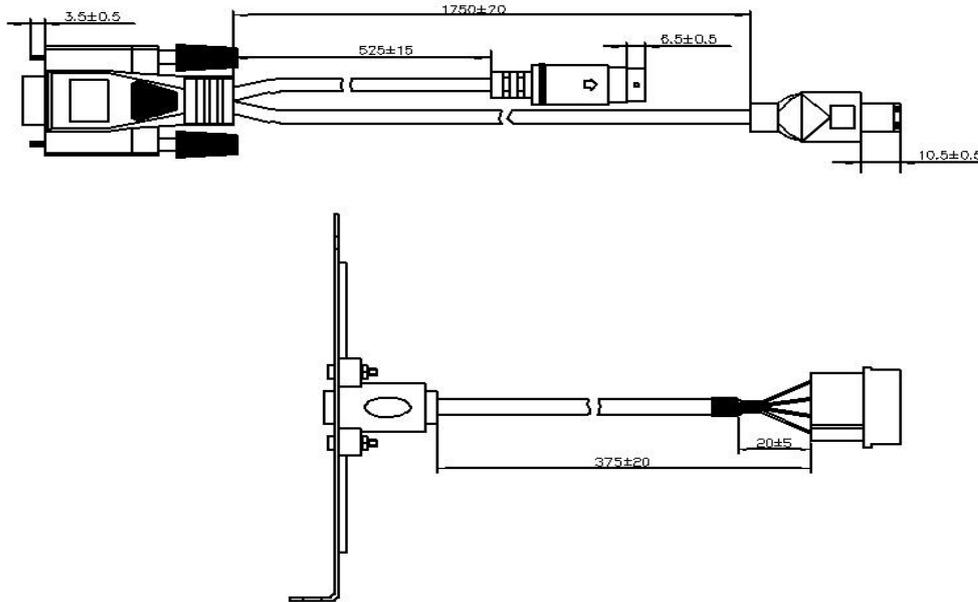
Pins and definition of controller

Connector of 1394:		Connector of DB9:	
Pins	Definition	Pins	Definition
1	NC		
2	RXD	2	RXD
3	TXD	3	TXD
4	NC		
5	GND	5	GND
6	+12V		
Note: Controller communicates with PC via pins 1,2, 3, 4 of IEEE1394. Definitions of the pins refer to those of PC.			

Specifications

Supply Voltage and Current

+12VDC，normal (+9V to +15Vdc)

86mA, typical at +12VDC, Average power dissipation is 1.0W, typical.

Supply must be capable of sourcing 200mA, minimum.

Total noise and ripple requirement must be less than 100mV (p-p) for frequencies below 1 MHz, and less than 50 mV (p-p) for frequencies above 1 MHz.

Interface

▪EIA 232E (Serial RS-232). DCE configuration, 8 Data Bits, 1 Stop Bit, No Parity, Full Duplex.

Baud Rate

. 9600

Operation Mode

Support T and C Mode Protocols(only ST6001S-H)

Support UP/STREAM/DOWN and Z Axis Modes

Touch Resolution

▪4096x4096, size independent, 256 levels of Z axis(pressure)

Conversion Time

▪Approximately 6.6 ms(only ST6001S-H)/10.4 ms per coordinate set (including transmitting time)

Reliability

▪MTBF is greater than 300,000 hours per MIL-HDBK-217-F2 using the parts stress calculation method for ground benign environment with an ambient temperature of 25℃

Flammability

▪The printed circuit board substrate is rated with 94V0.

ESD

▪Per EN 61000-4-2: Contact discharge 4kV, air discharge 8KV.

Environmental Temperature

▪Operation: -20°C ~70°C

▪Storage: -40°C ~ 85°C

Humidity

▪Operating: 10% to 90%, non-condensing

▪Storage: 10% to 90%, non-condensing

Connect to the computer

Insert the baffle into PC

Touchscreen

Connect to +12V power of PC

RS-232 Port

Connect to RS-232 port
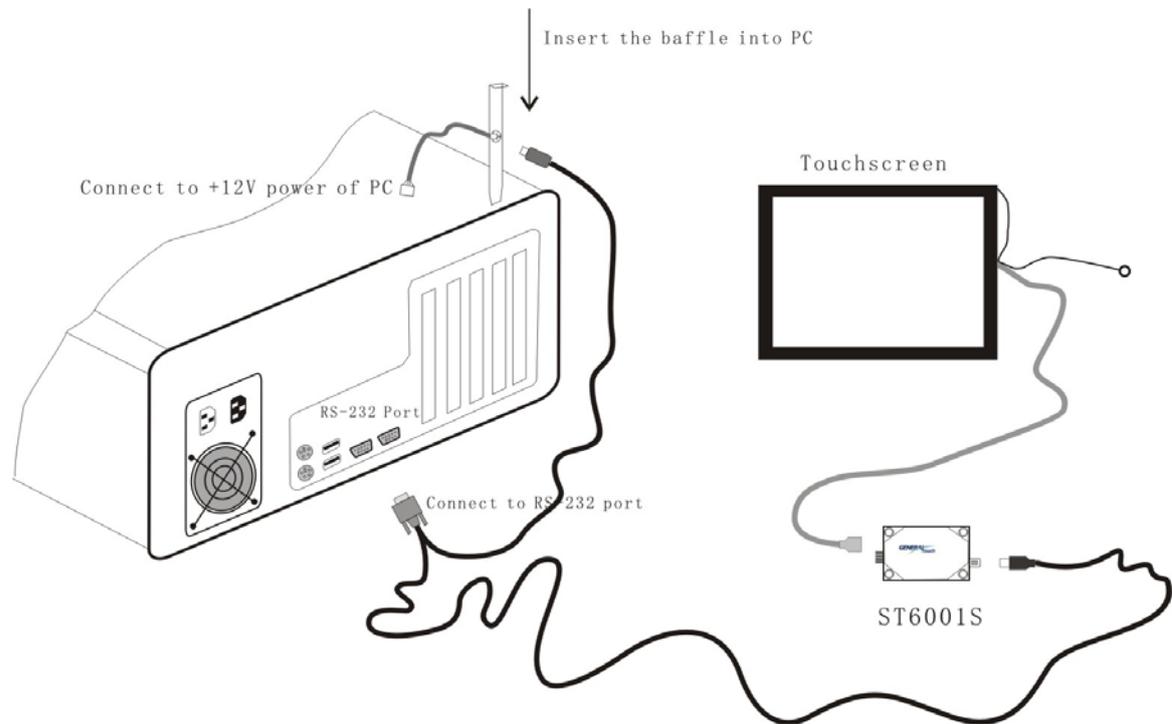
ST6001S

LED indicator status

The ST6001S has a blue LED to Indicate controller status:

The indicator keeps on lighting after turning on the computer, then turn off after finishing self-test

Indicator transitorily keeps on a lighting period about 3 seconds (1 second on and 2 seconds off) at normal operating status as no touching.

The indicator keeps on lighting as touching.

After the touching, the indicator will be off in 60 seconds then it will be fluttering as normal status.

The indicator will flutter at high speed when it is at abnormal operating status.

Touch driver

Operation platform

Windows 2000/XP

You can get these drivers in the driver CD, or download from our website:

www.generaltouch.com

==

Install touchscreen software

==

NOTES: you must have administrator access rights on your Windows 2000 system to install our touchscreen software package for Windows 2000. You must also have administrator access rights   to run the touchscreen control panel and touchscreen calibration applications.

1. Shutdown Windows and turn off your computer.

2. Install your touchscreen hardware.

3. Start your computer.

4. After Windows loads, click the "Start" button, and then click "Run".

5. Click the "Browse" button to locate the Setup.exe program in the directory
   containing the driver install files. Click "OK", then "OK" again to run Setup.exe.

6. Follow the directions on the screen.

7. Choose the COM Port you install your touchscreen.

8. If the "Digital Signature Not Found" dialog is displayed by Windows, click "Yes" to continue the installation. this version touchscreen software package for Windows 2000 has not yet been tested by Microsoft.

9. Complete the Setup program.

10. Restart Windows when prompted. The touchscreen calibration program will automatically run when Windows starts up. Touch the three targets as they appear on the screen. Click "Yes" when the cursor lines up correctly with your finger.

===

1.2   Change Touchscreen settings

===

1. Click the "Start" button,point to "Settings",and then "control panel".

2. Double-click the "GeneralTouch Touchscreen" icon, now you can change touchscreen settings.

For more about touchscreen settings,see "GenHelp.Chm" file.

===
1.3 Uninstall Touchscreen software
===

1. Click the "Start" button, point to "Settings", and then "Control Panel".

2. Double-click the "Add/Remove" Programs icon.

3. Select "GeneralTouch Touchscreen serial interface" from the list of uninstallable programs on the Install/Uninstall tab.

4. Click the "Add/Remove" button then follow the directions on your screen.

5. Restart Windows to complete the uninstall process.

FAQ

A: I have used controller 2036 and 4001S in my system,will I make some modification with my application if I use the ST6001S?

Q: Do not make any change as ST6001S completely compatible with 2036 and 4001S

A:How far can I use the touchscreen to computer?

Q: The length of the connector cable is unlimited in theory,so the distance from the touchscreen to the PC is decided by the lenghth of the display signal cable. It is recommended to be less than 15 meters from RS-232 port to controller.

A:Why cursor respond two when one touch and what can I do?

Q:It may be caused by incorrect transmit mode,It may need to change the working mode in control panel of touch driver

A:What was wrong while the LED indicator flutter at high speed?

Q:It was normally caused by hardware problem while LED indicator flutter at high speed such as the screen may be broken or connector cable have improperly connection. Fix the problem by:
1.   Check the hardware, especially the screen,
2.   shut down the power and turn on again
3.   test again with another screen if necessary.

Warranty

Generaltouch is only under obligation to offer the following Warranty Repair and Services except those authorized formal documents in written form.

Screen   repairable: in 5 years   replaceable: in 90 days

Controller   repairable: in 3 years   replaceable: in 90 days

Above warranty period takes the front four places of the SN labeled on GeneralTouch products as starting date.

Warranty products cover panel, controller and communication cable. Accessories included with the products are not included in the warranty

More warranty details, please access **www.generaltouchus.com/support/customer service**