



Projected Capacitive USB/RS232 1+1+1 Touch Sensor Controller Board

Supports sizes 4.3W – 10.4”

Size range supported may vary depending on custom requirements



DawarTouch®

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Document Revision History

Revision	Date	Content	Author
A	12-1-14	Released Spec	Lizzy Stoltz

Introduction:

USB/RS232 Touch Panel Controller Board

- 54 channels of interface capability
- Supports USB/RS232 Interface
- Meets the latest Restriction of Hazardous Substances (RoHS) directive
- Offers superior sensitivity, accuracy and overall excellent operation
- Provides 10 point touch capability
- Gloved hand operation
- Supports through glass touch
- Excellent accuracy with no linearity calibration required
- Emulates mouse left and right button function and supports the following operating systems:

OS	Version	Interfaces
Windows	Windows 8 (Need logo submission)	USB/RS232
	Windows 7	
	Windows Vista, XP/2000	
	Windows CE.net/5.0/6.0/7.0	
	Windows Embedded Windows XP Tablet PC edition	
Linux	Distribution based on Kernel 2.6.24 and later. (Ubuntu/Linux Mint)	USB/RS232
	Debian	
	Fedora Red Hat/CentOS Magaie/Mandriva/Mandrake SUSE/openSUSE	
	Android 2.3 ~ 4.4	USB/RS232
Mac	Mac OS, Mac OS X (PowerPC, Intel CPU)	USB
QNX	QNX RTOS V6.3	USB/RS232

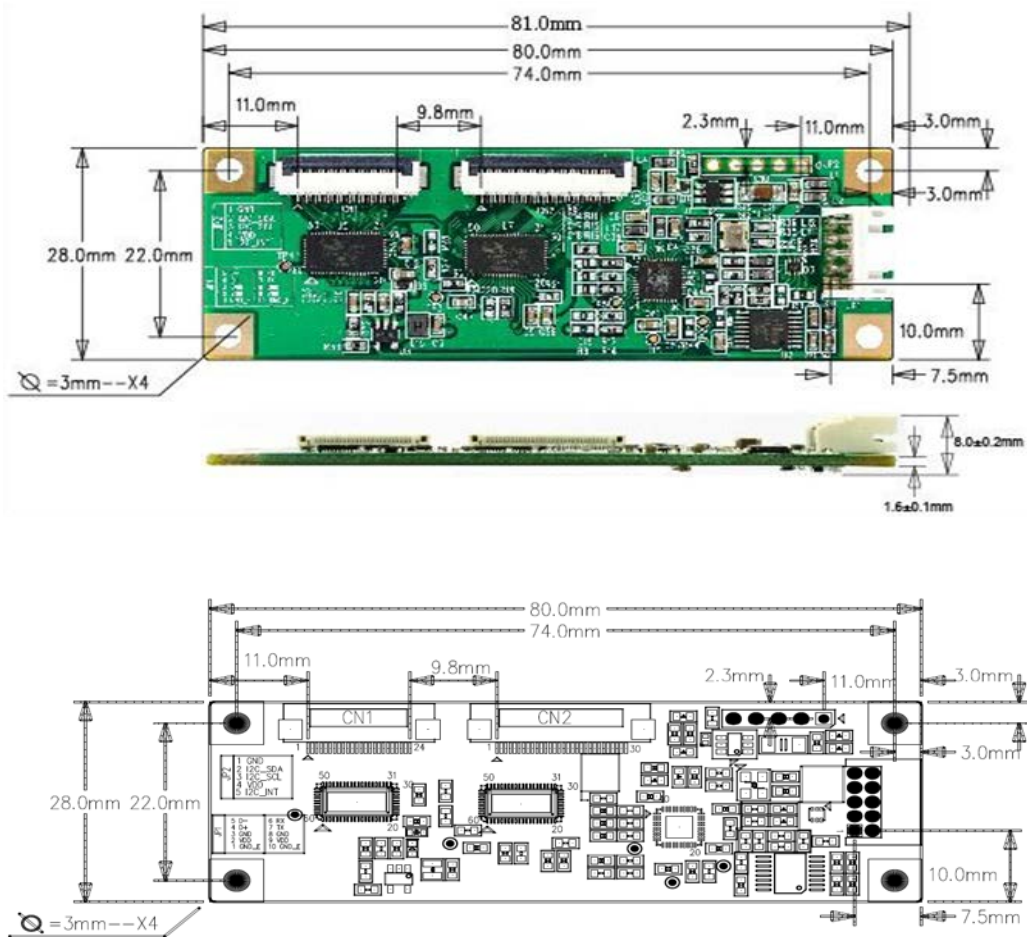


Specification:

USB/RS232 Type Controller	
Circuit Board Dimension	28mm x 81mm
Channels of Panel	Max. Rx:28 Tx:22 channels (excludes shielding) (2 shield pins used each for Rx and Tx circuits)
Input Voltage	3.5V~5.5V. Typical 5V.
Operating Temperature	-40 to 85 °C
Storage Temperature	-40 to 90 °C
Relative Humidity	95% at 60 °C, RH Non-condensing
Linearity	Line drawing accuracy: 1pt +/- 1mm offset /10mm Touch (point) accuracy: 1pt +/- 1mm Refer to Windows 8 Logo regulation
Interface	USB: 1.1 Full Speed RS232: No parity, 8 data bits, 1 stop bit, baud rate 19200bps
Resolution	4096x4096 resolution
Power Consumption(mA)	Active Mode: <90mA Idle Mode : <40mA Sleep Mode : < 5mA (Operation Mode: Active Mode only)
Report Rate (points/sec) (See Note 1 below)	> 100 Hz
Response Time	Average < 25 ms

Note 1: Report rate will vary by channel number, cover lens thickness and other parameters.

Controller Board Dimensions:



Thickness:

Total thickness: 8.0mm ± 0.2mm

(PCB: 1.6mm ± 0.1mm. USB/RS232 connector: 5.1mm. Soldering pin: 1.3mm)

Label Format:

Label 1 – Prototype

Label 1 product labeling is provided with low volume orders less than 50 pieces. The first line is the Dawar item number and revision. The second line is the firmware ID and Job number that was used to load the FW. The firmware ID is the controller tuning firmware. The third line is the date code and serial number. Item numbers are assigned from Dawar by product and are customer specific in some cases.

CTXXXXX-X FWXXXXX-X Job# XXXXXX YYMMDDhhmmss S/N
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Label 2 – Production

Label 2 product labeling is provided with production orders greater than 50 pieces. There are two labels on the back side of the controller, one that includes the part number and firmware ID information and a second that includes a serialized barcode.

EXC322430CAG 0272 CTXXXXX-X

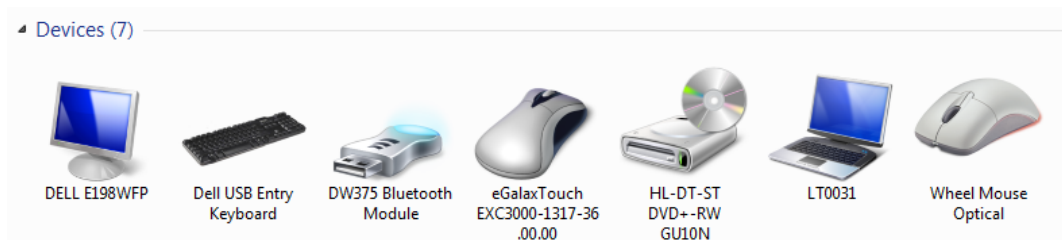
On the label that includes the part number information, the first line EXC322430CAG is the marketing part number. The second line is the firmware ID of the controller, i.e., 0272). The firmware ID is a 4 digit/character identifying the tuning of the controller. In some cases the firmware ID will be standard. The firmware ID will be provided as standard until the customer's specific tuning requirements have been completed.

Once the controller is tuned to the customer specific requirements, the firmware ID number will change to a discrete customer specific 4 digit/character. The third line is the Dawar item number and revision. This is the ordering part number for the product and customer specific in some cases.



The serial number label format is shown above. This includes a 10-digit number which allows Dawar to track the shipping record.

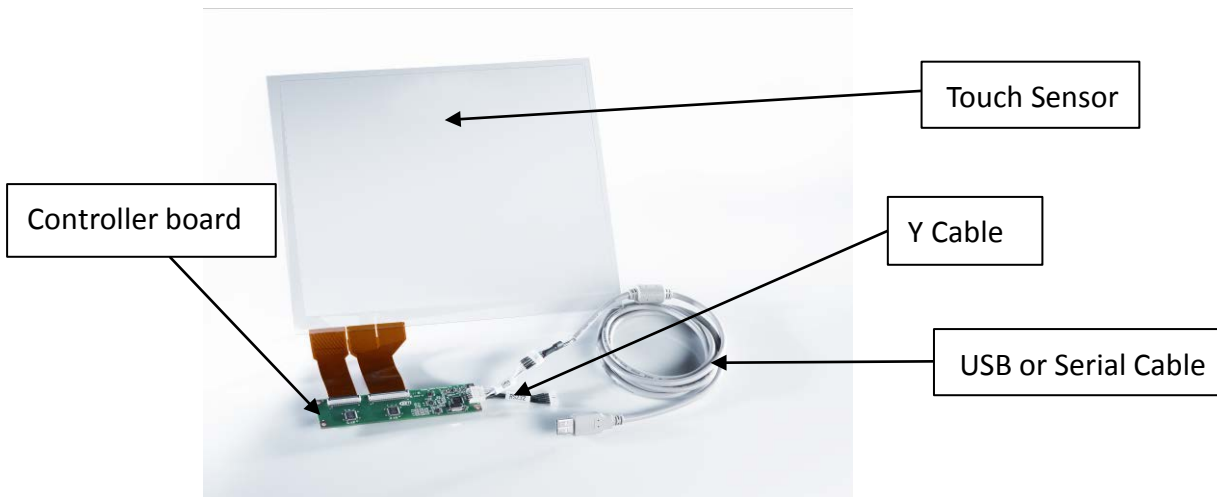
To check the version of FID in windows go to the Devices and Printers menu and the image below will appear:



Find device named started with eGalaxTouch EXC3000. For this example, 1317 is the firmware ID.

Complete Product Package:

- (1) PCAP Touch Sensor
- (2) PCAP Controller Board
- (3) Y-Cable (CT10050)
- (4) USB cable (CT10051) or RS232 cable (CT10052)



Cables:

Optional USB and Serial (RS-232) interface cable

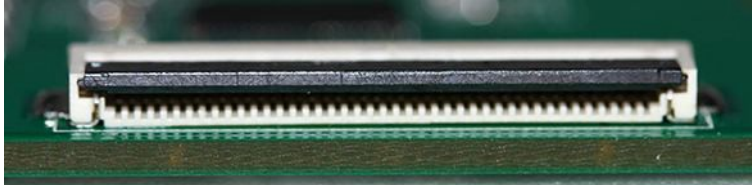
TYPE	Tail Length	Connector	P/N	Picture
USB	183cm	Pitch 2.0mm 5pin housing to USB A Male	CT10051	
Serial (RS-232)	183cm	Pitch 2.0mm housing to DB9 Female. PS/2 interface for 5V power input provided	CT10052	
Serial (RS-232)	50cm	Pitch 2.0mm housing to DB9 Female. Black and red wire for 5V power input provided	CT10085	
Y Cable	6.5cm	Pitch 2.0mm 10pin housing to 2 individual 5 pin 2.0mm housing for USB and serial cable connection	CT10050	

Note: The external power from mainboard or PS/2 interface is necessary when using Serial interface only.

Touch Panel Connections:

FPC Connector Pin Assignment:

CN1 Connector:



CN1																				
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	PIN
TX19	TX18	TX17	TX16	TX15	TX14	TX13	TX12	TX11	TX10	TX9	TX8	TX7	TX6	TX5	TX4	TX3	TX2	TX1	SHIELD_TX1	
																24	23	22	21	PIN
																SHIELD_TX2	TX22	TX21	TX20	

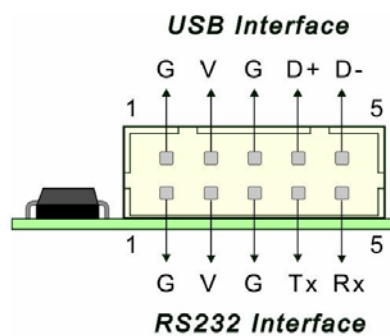


CN2 Connector



CN1																				
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	PIN
RX19	RX18	RX17	RX16	RX15	RX14	RX13	RX12	RX11	RX10	RX9	RX8	RX7	RX6	RX5	RX4	RX3	RX2	RX1	SHIELD_RX1	
										30	29	28	27	26	25	24	23	22	21	PIN
										SHIELD_RX2	RX28	RX27	RX26	RX25	RX24	RX23	RX22	RX21	RX20	

USB/RS232 Combo Connector Pin Assignment:

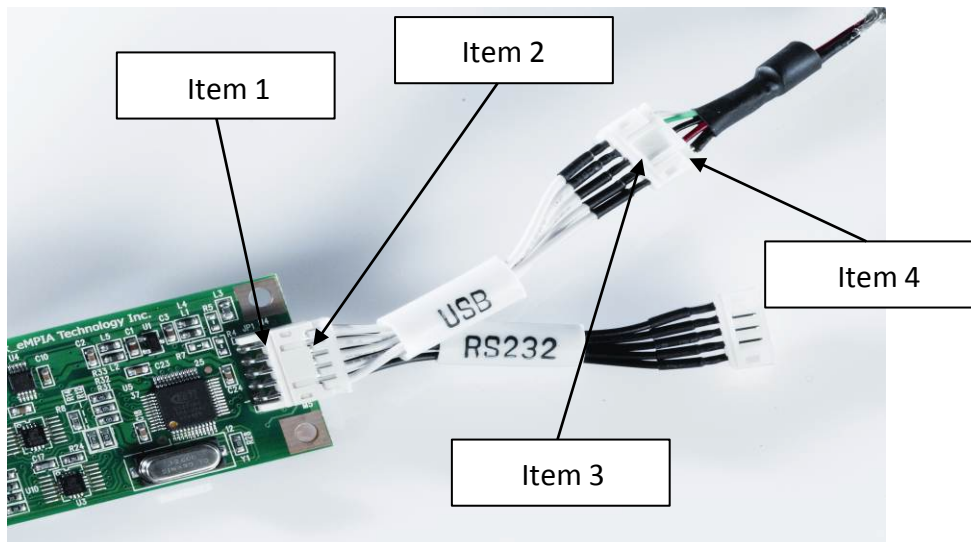


Y-Cable Pin Assignment:



This cable has a total of 3 connectors: one connection to the controller board and two connections to either USB or Serial cable.

Cable Connectors:



Item	Description	Part Number	Manufacturer
1	Main Board, Male	CP-HD20R-2x5	Cherng Weei
2	YY Cable, Female	A2004H-2x5P (used for SXC00)	CJT or selected manufacture
2a Alternate	Y Cable, Female	JST-PHDR-10VS	JST
3	Y Cable, Male	A2001WV-XP-5P (used for SXC00)	CJT or selected manufacture
4	USB or Serial Cable, Female	A2001H-5P (used with SXU00 or SXR00)	CJT or selected manufacture
4a Alternate	USB or Serial Cable, Female	JST-PHR-5	JST

Product Life:

- 5 year product lifecycle
 - o 2-3 years “active promotion”
 - o 2-3 years “continued availability”
- 12 month end-of-life (EOL) Notification
 - o Last time buy option available with EOL notification
- 60 day change notification on anything that affects fit, form or function of the part.

Warranty:

Dawar warrants the products produced to this specification from date of shipment for (1) year.

Please reference Dawar’s standard terms and conditions for more information.