ETP-MB-EXC208056TBG-XXXX

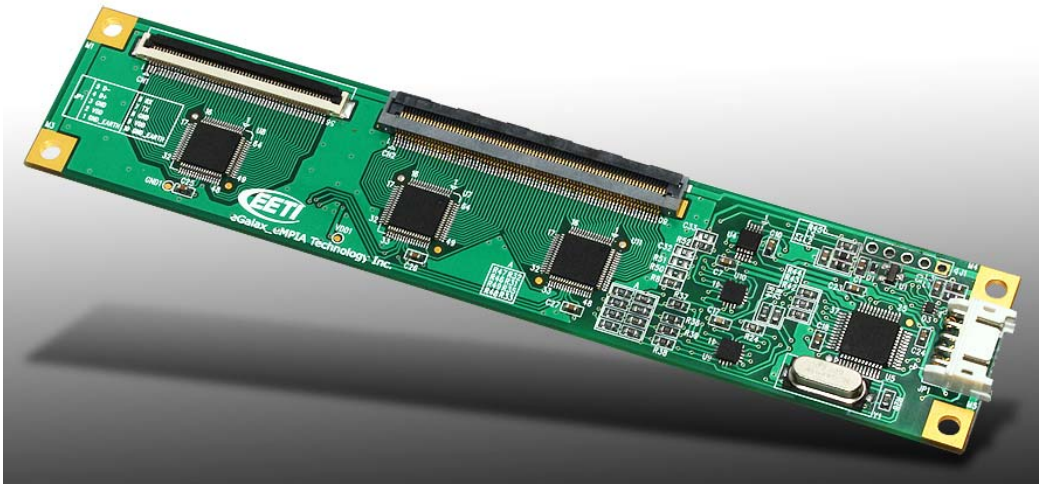
禾瑞亞科技股份有限公司
eGalax_eMPIA Technology Inc.

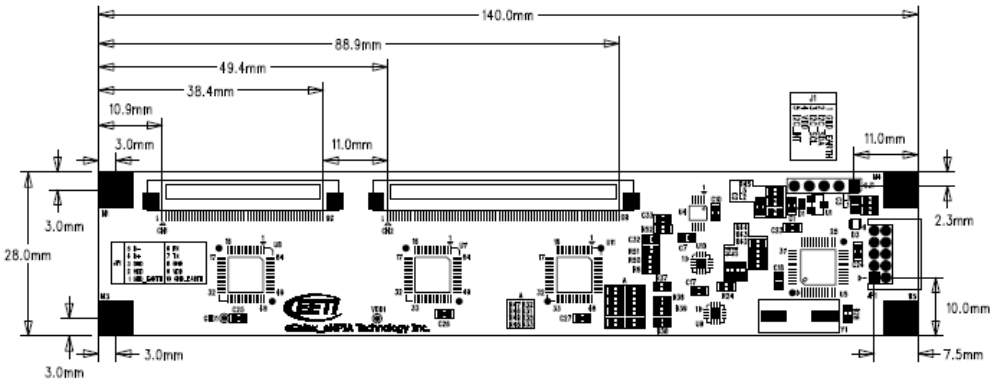
Projected Capacitive USB/RS232/I2C Touch Panel Controller

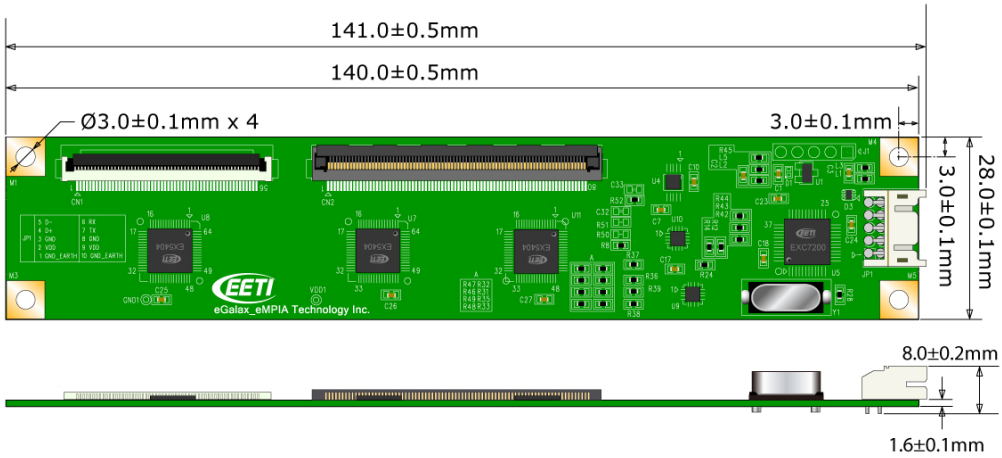
eGalax_eMPIA launched touch control board to meet latest Restriction of Hazardous Substances (RoHS) Directive. This touch panel controller provides the optimistic performance of your projected capacitive touch panels. It communicates with PC system directly through USB/UART/I2C connector. You can see how superior the design is in sensitivity、accuracy and friendly operation. The touch panel driver emulates mouse left and right button function and supports operation systems as following.

OS	Version	Interfaces
Windows	Windows 7 Windows Vista, XP/2000, 9x/ME Windows CE 2.12/3.0/.net/5.0/6.0 Windows Embedded Windows XP Tablet PC edition	USB/RS232
Linux	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/VI), 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)	USB/RS232/I2C (up to Kernel 2.6.x)
	Android 4.0 – Google Moblin V2/Meego - Intel	USB/RS232/I2C
Mac	Mac OS9, Mac OS X (IBM, intel CPU)	USB
QNX	QNX RTOS v6.3	USB/RS232

Controller:







Thickness:

Total thickness: 8.0mm ± 0.2mm
(Including PCB: 1.6mm.USB/RS232 connector:5.1mm. Soldering pin:1.3 mm)

Specifications:

USB/RS232/I2C Type Controller	
Circuit Board Dimension	28mm x 140mm
Channels of Panel	Max. X:78 Y:44 channels
Input Voltage	3.5V~5.5V.Typical 5V.
Operating Temperature	-40 to 85 ℃
Storage Temperature	-40 to 90 ℃
Relative Humidity	95% at 60 ℃, RH Non-condensing
Linearity (Note 1)	Line drawing accuracy : 1pt +/- 1mm offset /10mm Line drawing accuracy : 2pt +/- 2mm offset /10mm Touch (point) accuracy : 1pt +/- 2.5mm Touch (point) accuracy : 2pt +/- 5.0mm Refer to Windows 7 Logo regulation
Interface	USB: 1.1 Full Speed RS232: No parity,8 data bits,1 stop bit, baud rate 57600bps I2C:100K/400K Hz
Resolution	2048×2048 resolution
Power consumption(mA)	Active Mode: Max 50 mA Idle Mode : 5mA Sleep Mode :0.5mA
Report rate(points/sec) (Note 2)	Single touch: Typ.200 Hz Dual touch : Typ.120 Hz 4 point touch: Typ.60 Hz
Response time	Max. 20 ms

Note 1: Channel pitch should be 4.8mm- 6mm
Note 2: Report rate will vary by channel number, cover thickness and other parameters

Product Package:

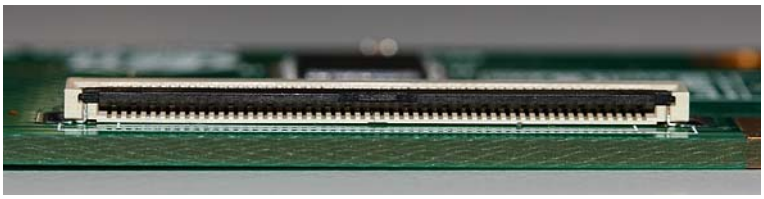
(1) PCAP Controller Board(ETP-MB-EXC208056TBG-XXXX)

(2) Y-Cable (ETP-CB-SXC00)

(3) USB cable (ETP-CB-SXU00) or RS232 cable (ETP-CB-SXR00)

FPC Connector Pin Assignment:

CN1 Connector



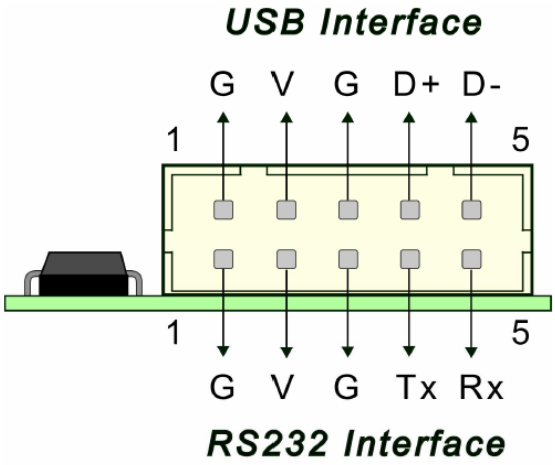
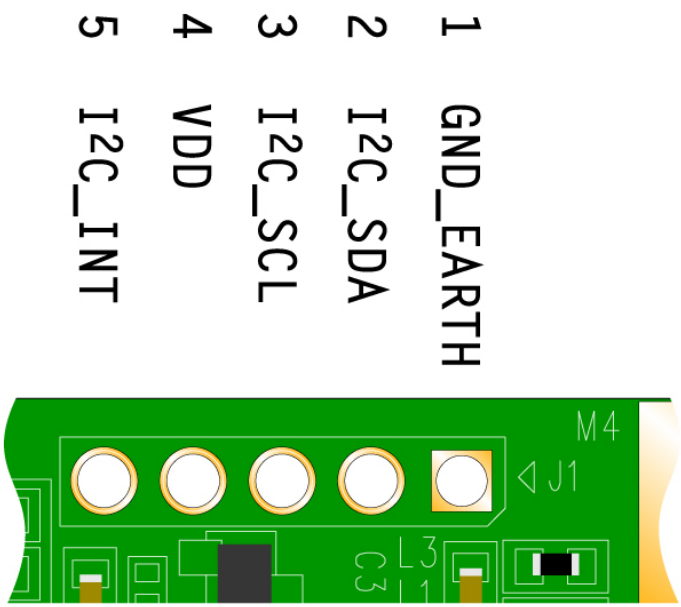
PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	NC	NC	Shield_Y1	Extra_Y1	Extra_Y2	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14
PIN	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	Y15	Y16	Y17	Y18	Y19	Y20	Y21	Y22	Y23	Y24	Y25	Y26	Y27	Y28	Y29	Y30	Y31	Y32	Y33	Y34
PIN	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56				
	Y35	Y36	Y37	Y38	Y39	Y40	Y41	Y42	Y43	Y44	Y45	Y46	Y47	Y48	Y49	Shield_Y2				

CN2 Connector

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Shield_X1	X0	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18
PIN	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	X19	X20	X21	X22	X23	X24	X25	X26	X27	X28	X29	X30	X31	X32	X33	X34	X35	X36	X37	X38
PIN	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
	X39	X40	X41	X42	X43	X44	X45	X46	X47	X48	X49	X50	X51	X52	X53	X54	X55	X56	X57	X58
PIN	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
	X59	X60	X61	Extra_1	Extra_2	Extra_3	Extra_4	Extra_5	Extra_6	Extra_7	Extra_8	Extra_9	Extra_10	Extra_11	Extra_12	Extra_13	Extra_14	Extra_15	Extra_16	Shield_X2

USB/RS232 Combo Connector Pin Assignment:

USB&RS232 interface:



I2C interface: