



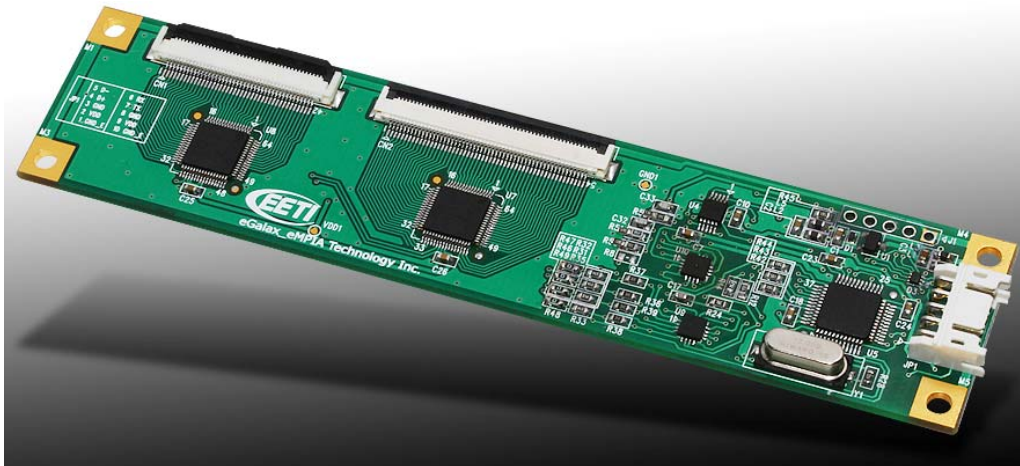
禾瑞亞科技股份有限公司  
eGalax\_eMPIA Technology Inc.

## Projected Capacitive USB/RS232/I2C Touch Panel Controller

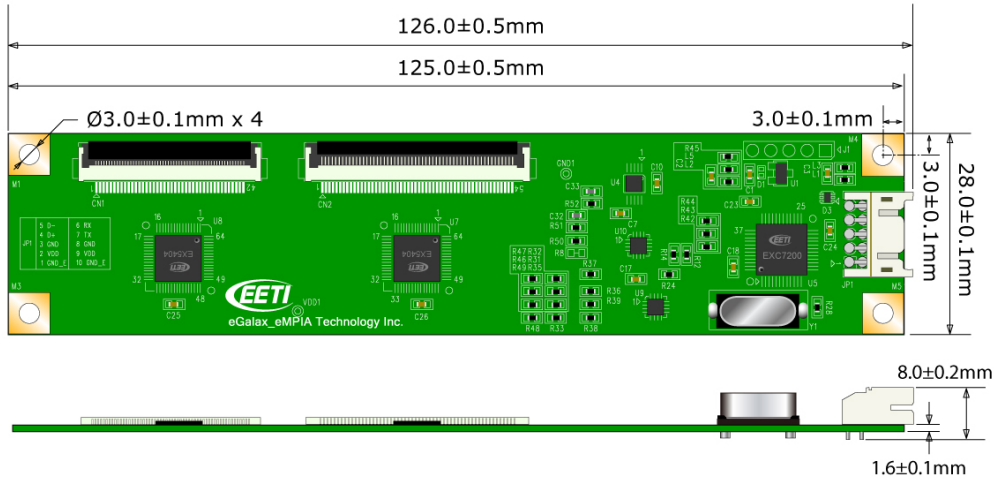
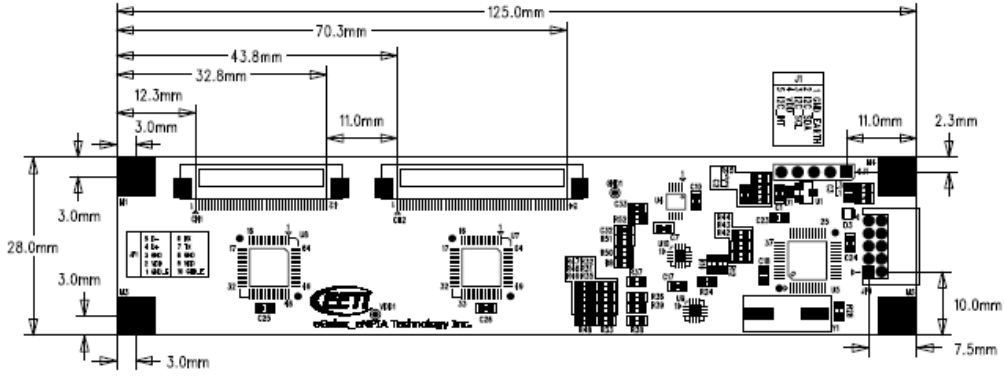
eGalax\_eMPIA launched touch control board to meet latest Restriction of Hazardous Substances (RoHS) Directive. This touch panel controller provides the optimistic performance of your projected capacitive touch panels. It communicates with PC system directly through USB/UART/I2C connector. You can see 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
<b>Windows</b>	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
<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/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
<b>Mac</b>	Mac OS9, Mac OS X (IBM, intel CPU)	USB
<b>QNX</b>	QNX RTOS v6.3	USB/RS232

### Controller:



# ETP-MB-EXC205442TBG-XXXX



## **Thickness:**

Total thickness: 8.0mm ± 0.2mm

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

# ETP-MB-EXC205442TBG-XXXX

## Specifications:

<b>USB/RS232/I2C Type Controller</b>	
Circuit Board Dimension	28mm x 125mm
Channels of Panel	Max. X:52 Y:40 channels
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 (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**

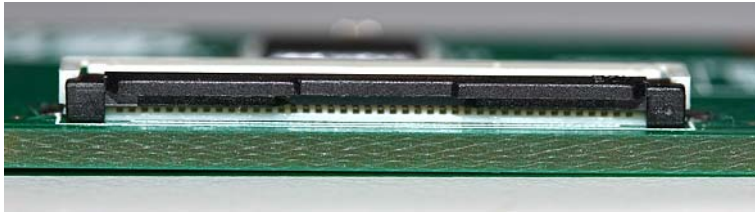
## Product Package:

- (1) PCAP Controller Board(ETP-MB-EXC205442TBG-XXXX)
- (2) Y-Cable (ETP-CB-SXC00)
- (3) USB cable (ETP-CB-SXU00) or RS232 cable (ETP-CB-SXR00)

# ETP-MB-EXC205442TBG-XXXX

## FPC Connector Pin Assignment:

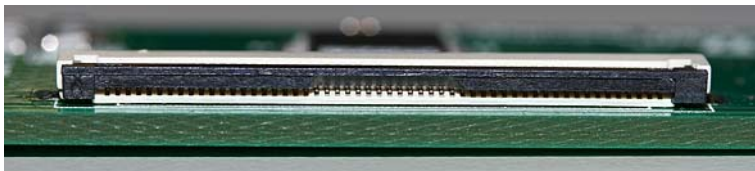
### CN1 Connector



CN1

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	PIN
Y18	Y17	Y16	Y15	Y14	Y13	Y12	Y11	Y10	Y9	Y8	Y7	Y6	Y5	Y4	Y3	Y2	Y11	Y0	Shield_Y1	
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	PIN
Y38	Y37	Y36	Y35	Y34	Y33	Y32	Y31	Y30	Y29	Y28	Y27	Y26	Y25	Y24	Y23	Y22	Y21	Y20	Y19	
																		42	41	PIN
																		Shield_Y2	Y39	

### CN2 Connector

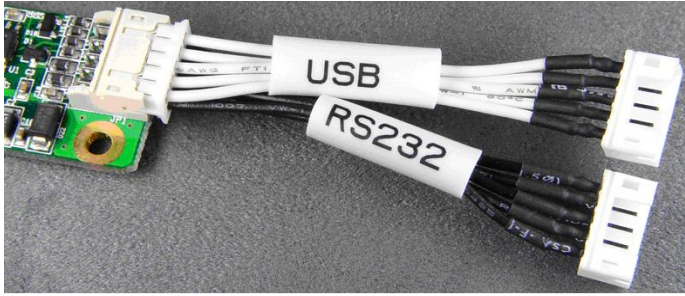


CN2

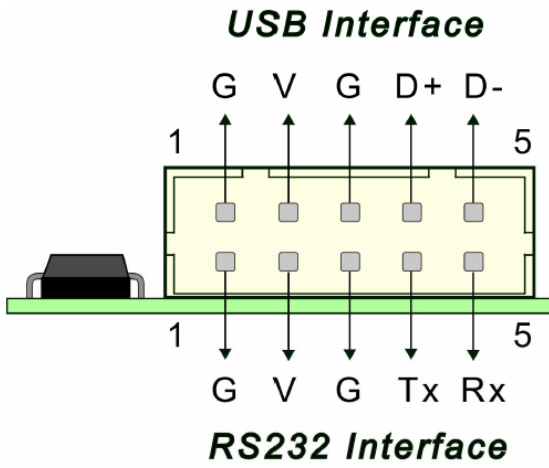
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	PIN
X18	X17	X16	X15	X14	X13	X12	X11	X10	X9	X8	X7	X6	X5	X4	X3	X2	X1	X0	Shield_X1	
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	PIN
X38	X37	X36	X35	X34	X33	X32	X31	X30	X29	X28	X27	X26	X25	X24	X23	X22	X21	X20	X19	
						54	53	52	51	50	49	48	47	46	45	44	43	42	41	PIN
						Shield_X2	X51	X50	X49	X48	X47	X46	X45	X44	X43	X42	X41	X40	X39	

# ETP-MB-EXC205442TBG-XXXX

## USB/RS232 Combo Connector Pin Assignment:



## USB&RS232 interface:



## I2C interface:

5	4	3	2	1
I2C_INT	VDD	I2C_SCL	I2C_SDA	GND_EARTH

