



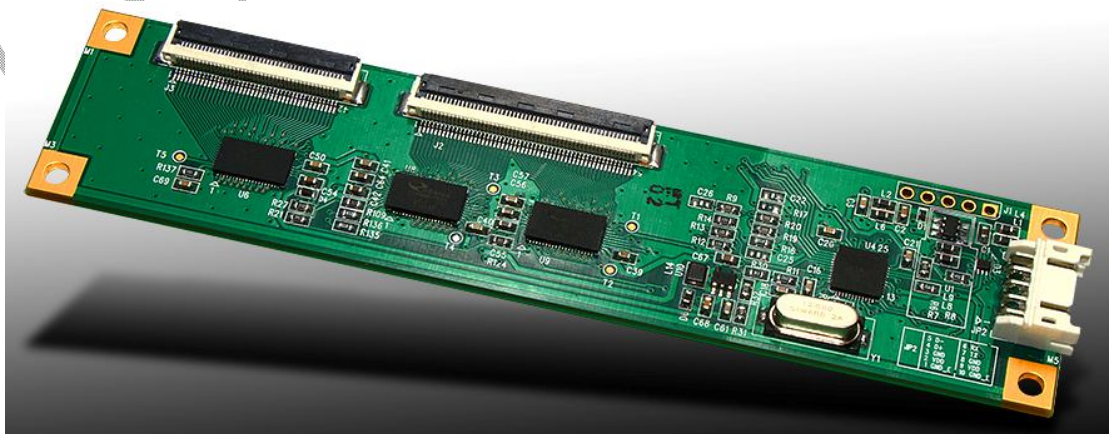
禾瑞亞科技股份有限公司  
eGalax\_eMPIA Technology Inc.

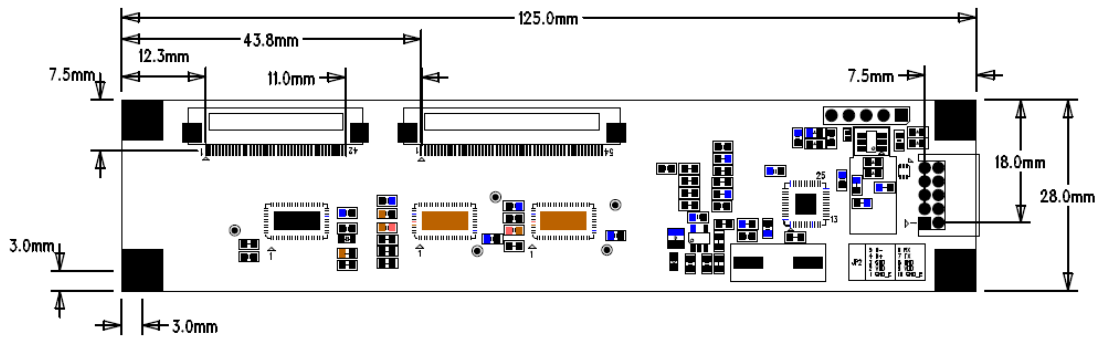
## Projected Capacitive USB/RS232/I2C Touch Panel Controller

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.

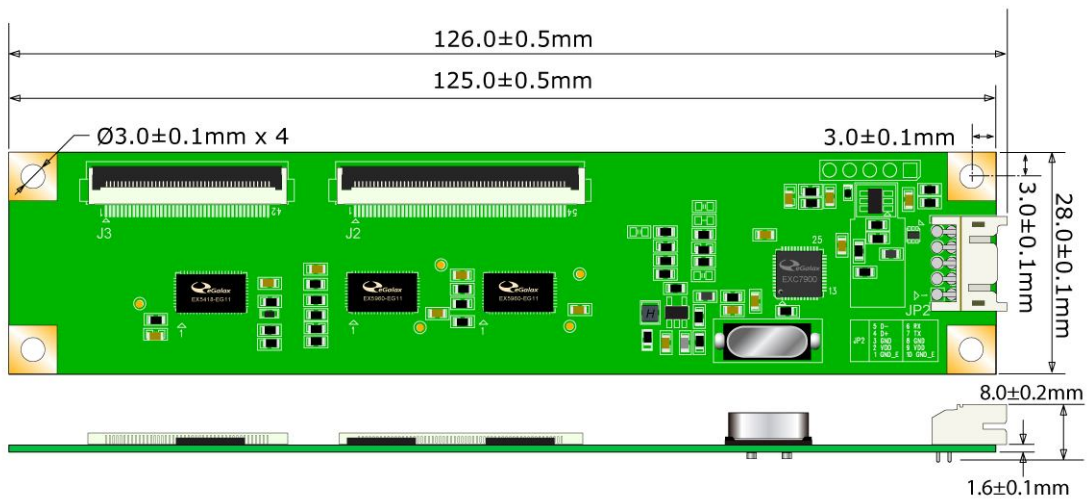
OS	Version	Interfaces
<b>Windows</b>	Windows 8(Need logo submission) Windows 7 Windows Vista, XP/2000, 9x/ME Windows CE 2.12/3.0/.net/5.0/6.0 Windows Embedded Windows XP Tablet PC edition	USB/RS232
	Mandrake (Mandrake 9.1/9.2/10, Mandriva 2005, Mandriva 2006), Red Hat (7.3/8.0/9.0), Fedora (Core I/II/III/IV/V/VI), 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 (up to Kernel 2.6.x)
<b>Linux</b>	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:





DRUKSCHEDELEN TOP SIDE



**Thickness:**

Total thickness: 8.0mm ± 0.2mm

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

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## Specifications:

<b>USB/RS232/I2C Type Controller</b>	
Circuit Board Dimension	28mm x 125mm
Channels of Panel	Max. Tx:42 Rx:54 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 115200bps I2C:100K/400K Hz
Resolution	4096×4096 resolution
Power consumption(mA)	Active Mode: Max 60 mA Idle Mode : 8~12mA Sleep Mode :1mA (Operation Mode :Active Mode only)
Report rate(points/sec) (Note 2)	> 160 Hz
Response time	Max. 25 ms

**Note 1: Channel pitch should be design 4.8mm- 6mm**

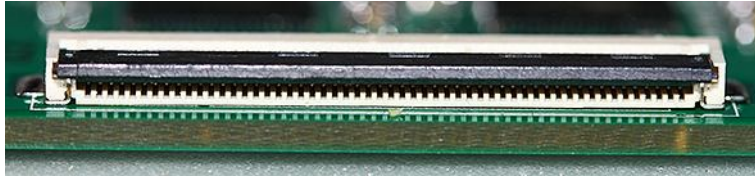
**Note 2: Report rate will vary by channel number, cover thickness and other parameters**

## Product Package:

- (1) PCAP Controller Board(ETP-MB-EXC964254TAG-XXXX)
- (2) Y-Cable (ETP-CB-SXC00)
- (3) USB or RS232 cable

## FPC Connector Pin Assignment:

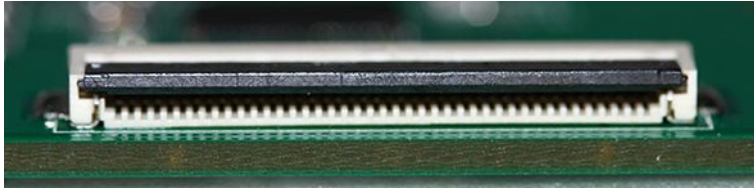
## J2 Connector



J2																				
PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	SHIELDING_RX0	RX0	RX1	RX2	RX3	RX4	RX5	RX6	RX7	RX8	RX9	RX10	RX11	RX12	RX13	RX14	RX15	RX16	RX17	RX18
PIN	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	RX19	RX20	RX21	RX22	RX23	RX24	RX25	RX26	RX27	RX28	RX29	RX30	RX31	RX32	RX33	RX34	RX35	RX36	RX37	RX38
PIN	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
	RX39	RX40	RX41	RX42	RX43	RX44	RX45	RX46	RX47	RX48	RX49	RX50	RX51	SHIELDING_RX1						

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### J3 Connector

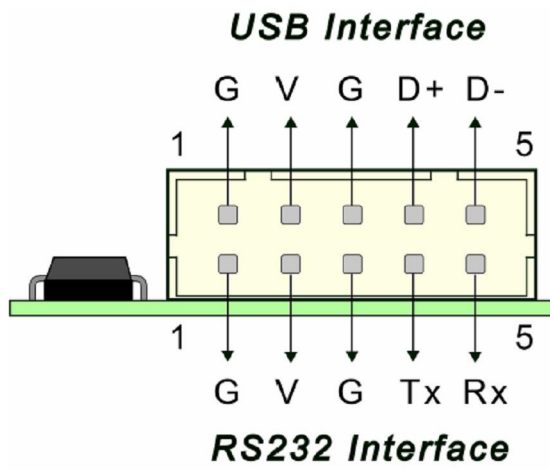


J3																				
PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	SHIELDING_TX0	TX0	TX1	TX2	TX3	TX4	TX5	TX6	TX7	TX8	TX9	TX10	TX11	TX12	TX13	TX14	TX15	TX16	TX17	TX18
PIN	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	TX19	TX20	TX21	TX22	TX23	TX24	TX25	TX26	TX27	TX28	TX29	TX30	TX31	TX32	TX33	TX34	TX35	TX36	TX37	TX38
PIN	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
	TX39	SHIELDING_TX1																		

### 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

